
UNIT 1 ECONOMY AT THE TIME OF INDEPENDENCE

Structure

- 1.0 Objectives
- 1.1 Introduction
- 1.2 Indian Economy in the Mid-Eighteenth Century
 - 1.2.1 Nature of Rural Economy in Pre-British India
 - 1.2.2 Nature of Urban Economy in Pre-British India
 - 1.2.3 Conclusion
- 1.3 Arrival of the Britishers in India
- 1.4 Indian Economy at the Time of Independence
 - 1.4.1 State of Indian Agriculture
 - 1.4.2 State of Indian Industry
 - 1.4.3 State of Currency and Banking
 - 1.4.4 State of Industrial Infrastructure
 - 1.4.5 State of the Social Institutions
- 1.5 Features of the Indian Economy on the Eve of Independence
 - 1.5.1 India as an Underdeveloped Economy
 - 1.5.2 India as a Dependent Economy
- 1.6 Partition of India
- 1.7 Let Us Sum Up
- 1.8 Key Words
- 1.9 Some Useful Books
- 1.10 Answers or Hints to Check Your Progress Exercises

1.0 OBJECTIVES

After going through this unit you should be able to :

- Recognise the need for understanding the historical dimensions of the problem of economic development;
- Identify the basic characteristics of rural and urban economy in pre-British India;
- Discuss the conditions that favoured rapid economic development in the Indian economy as it obtained on the eve of the British arrival;
- Explain the circumstances in which the Britishers came to India;
- Discuss the state of different sectors of the Indian economy on the eve of Independence;
- Examine the nature, extent and causes of poverty on the eve of Independence; and
- Discuss the effects of partition of the country on economic development.

1.1 INTRODUCTION

Poverty in India, as we find it today, is not of recent origin. It has roots in the past. Not that India was a poor country always. Contrary to it, volumes have been written by foreign travellers to this land to depict the riches and wealth of India. There was hardly a traveler who was not fascinated by the richness and abundance of this land. How did such a rich country get reduced to the *status of a poor, stagnant, backward and under-developed economy* ? It is a long story. This all began with the arrival of the British in India around the early eighteenth century. In this unit, we will examine

in brief the state of the Indian economy as it obtained before the arrival of the British in India. We will trace the arrival of the British and examine the state of the Indian economy as it obtained on the eve of the independence in 1947. Such a review will help us appreciate the magnitude of effort involved in our fight against poverty and raise average standard of living over the last five decades since independence, and the degree of success achieved by us.

1.2 INDIAN ECONOMY IN THE MID-EIGHTEENTH CENTURY

A simple idea about the state of the economic system as it obtained in pre-British India can be formed by looking at the rural segment and the urban segment of the economy.

1.2.1 Nature of Rural Economy in Pre-British India

A self-sufficient village, based on agriculture carried on with the primitive plough and bullock-power and handicrafts by means of simple instruments, was the basic feature of pre-British Indian society.

The self-sufficient village as the basic economic unit had existed for centuries in India and, except for some minor modifications, had survived till the advent of the British rule. The village population was mainly composed of peasants. The village committee, representing the village community, which was the *de facto* owner of the village land, distributed this land among the peasant families in the form of holdings. Each holding was cultivated by the peasant family by means of the collective labour of its members and with the aid of the primitive plough and bullocks. The peasant family enjoyed a traditional hereditary right to possess and cultivate its holding from generation to generation. Further, village agriculture was mainly produced for the needs of the village. A share of this produce had to be surrendered to the lord of the moment. Besides the peasant families, the village population also included industrial workers—such as a blacksmith, a carpenter, a potter, a weaver, a cobbler, a washerman, an oilman, a barber, and others. They all worked almost exclusively for satisfying the needs of the village population. All exchange of products produced by the village workers, agricultural or industrial, was limited to the village community and hence very restricted in scope. The village population consumed almost the whole of what it produced. Thus, economically, the village was predominantly autarkic. Local produce prepared mainly by means of local labour and resources was almost locally consumed. There was very little exchange between village and outside world. Whatever little trade existed, was carried on, generally, on a specific day of the week, at the market in a big village where a variety of goods from a number of centres were sold.

1.2.2 Nature of Urban Economy in Pre-British India

Amidst an ocean of tiny, autarkic village, a few towns had sprung up and existed. These towns were of three kinds, those of political importance, those of religious significance and others of commercial value. Handicraft industries, complex and diversified, flourished in these towns. In contrast to the artisan industry which had to supply the limited needs of a small village group, it was the urban industry which produced luxury articles for the aristocratic and wealthy merchant strata of the society; which produced equipment for the army, forged weapons of war and undertook the construction of military forts; which erected magnificent places, imposing temples and even such monuments of rare art or engineering as the world-celebrated

Taj Mahal and Qutub Minar. It was the urban industry, which undertook to construct canals. The town handicrafts of India, during centuries of their existence in pre-British India, had reached a high level of development. The fame of their products, which were varied and had the great artistic quality, had spread to distant countries. The Indian industries, consequently, commanded a world market. Perhaps, the most striking feature of the urban industries was the extremely limited character of their market. This was due to the fact that they did not produce articles of daily use for the common people but functioned to meet the specific needs of the social strata and institutions mentioned above. Further, the requirements of the vast mass of the population living in autarchic villages were met by the local artisan industry of the villages themselves, thereby narrowing down the market of urban industries to extremely restricted zones.

1.2.3 Conclusion

In brief, it could be stated that India had a well-knit economic organisation during the early eighteenth century. Although we cannot say that the Indian economy was a “developed” one in the modern sense of the term, we can positively affirm that the Indian economy did possess sufficient vitality to grow at a fast rate. The striking balance and the close harmony between agriculture and industry was a very rare phenomenon. India enjoyed supremacy in the external trade. If proper infrastructure could be developed, it offered vast opportunities for internal trade also. In short, India during the mid-eighteenth century was a country well-equipped to meet the rising demands of fast economic development.

1.3 ARRIVAL OF THE BRITISH IN INDIA

The British commercial expedition to India began on 31st December, 1600 when the British East India Company was granted the monopoly of eastern trade. The Company got itself entrenched on the commercial map of India. The Company’s aims and objectives underwent a change. A peaceful trading body was transformed into a power eager to establish its own position by territorial acquisition. The company had its first major success when it fought and defeated the Nawab of Bengal in the Battle of Plassey (1757). By the middle of the nineteenth century they had brought a large part of the country under their control. In 1858, the administration of the Company-controlled areas was transferred to the British Crown. Thus, India became a colony of the British Empire. The British gave a new economic system to India. This was the *system of the market*.

The market system destroyed the earlier harmony between agriculture and industry in Indian economic organisation; instead, cultivators, traders and producers, artisans, agricultural and industrial workers, were all exposed to vagaries of the market forces. The market system opened the floodgates of colonial exploitation of the Indian economy at the hands of its masters, the Britishers. The exploitation was on such a large scale that it came to be known as ‘drain’ of the national wealth.

Check Your Progress 1

1) Describe in brief the basic features of the pre-British Indian society.

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2) What was the nature of exchange of village products?

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3) What was the nature of exchange of products of Indian Industry?

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4) Was pre-British India a developed economy in the modern sense of the word?

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1.4 INDIAN ECONOMY AT THE TIME OF INDEPENDENCE

The 200 years of unchecked drain inflicted deep wounds on economic organisation. On the eve of independence, the Indian economy was a backward stagnant economy characterised by widespread poverty. Whole of the economic structure was geared to the colonial needs of the British; it was totally a dependent system. The partition of the country brought in its wake insurmountable problems for the economy. Let us examine in detail a few of these aspects.

1.4.1 State of Indian Agriculture

Agriculture has always been the primary industry of India, even from early days, and so it was in 1947, i.e. on the eve of independence. About 70 per cent of the total labour force was engaged in this sector. About 50 per cent of the national product was generated in this sector. Net sown area estimated at about 127 million hectares formed about 43.6 per cent of the total reported land area of the country. Food crops accounted for about 80 per cent of the land area under cultivation, while non-food crops accounted for 19 per cent. Important crops that were produced were wheat, rice, millets, sugarcane, cotton and jute. India produced about 32 per cent of the world's total production of groundnuts, 41 per cent of jute and 27 per cent of rice. India was the largest producer of groundnuts, sugarcane and hemp, the second largest producer of cotton next to USA, and China in the world.

Notwithstanding this predominant position, productivity in the agricultural sector was among the lowest in the world. This is clearly brought out in Table-1 below:

Table-1: Yield in quintals per hectare for 1946

Country	Rice	Wheat	Barley	Maize
Italy	41.7	13.3	9.7	15.1
Spain	42.2	9.6	12.9	14.8
Argentina	33.9	10.0	11.9	22.3
Japan	36.9	9.7	10.7	12.5
India	12.3	6.0	7.9	6.2

The table-1 clearly brings out the fact of low agricultural productivity in India on the eve of Independence. Low productivity in the agricultural sector could be explained by a number of factors; more important among these were (i) the rising pressure of population on land; and (ii) the neglect of agricultural improvements at the hands of the British Government in India.

- i) The mass of Indian handicraftsmen, ruined as a result of the influx of machine-made goods of British industries, could not be absorbed in the indigenous industries. These took to agriculture for subsistence. It was this overcrowding on land, which primarily explained the ruinous subdivision and fragmentation of land resulting in the growth of uneconomic holdings. This, in turn, resulted in a steady decline in the income of the large section of the agricultural population. The impoverishment of the agriculturists, disastrously affected agriculture. The impoverished agriculturist could not renew his livestock or properly manure the field. He and his family lost physical energy due to malnutrition and thereby capacity for labour on the field. Thus, agriculture stagnated, in fact, deteriorated. The yield per hectare steadily declined.
- ii) The institutional and the infrastructural framework that obtained in the agricultural sector on the eve of independence were also largely responsible for backward agriculture. The *Zamindari* system, introduced by the British covered 62 per cent of the land. The remaining 38 per cent was under the *Ryotwari* system. The *Zamindars* used to extort as much rent as they could from the cultivators, leaving no surplus and little incentive for the cultivator to bring about any improvements on the land. Further, although a canal network had been laid down, but this was grossly inadequate ; only 17 per cent of the area under cultivation had the benefit of irrigation. Likewise, orderly markets for agricultural produce did not exist, nor were there any government agencies entrusted with this task. For his credit requirements, the farmer depended upon indigenous bankers in absence of any organised credit system. In short, the agricultural sector as a whole suffered decay and stagnation; the economic condition of peasantry was poor. This type of system could prove only a drag on growth and cried for immediate relief and improvement.

1.4.2 State of Indian Industry

Pre-British India was a land of artisans and handicraftsmen. It was during the British period that the modern machine-based industries were established in India. But the industrial development of India was insufficient and lop-sided.

The relative backwardness of industrial development in India may be judged from the fact that in 1948-49 factory establishments accounted for only 6.6 per cent of total national income. The total labour force engaged in such establishments was about 2.4 million or 1.8 per cent of the working population in the country. While in the aggregate India's industrial output may look massive, per head of population it was very much lower than the industrial output in advanced countries. Prior to the First World War the only major industries, which had developed substantially were *cotton* and *jute textiles*, for which the country had exceptional natural advantages. The industrial development since the twenties was associated with the adoption of a more progressive industrial and fiscal policy. The Second World War created conditions for improved utilisation of the existing capacity in Indian industries. This was the major factor responsible for the increase in the recorded industrial production.

Main Features of Indian Economy

this period, but the major effect of the war felt in the sector of medium and small-scale industries. Industrial development during the war and the post-war period was influenced largely by the prevailing inflationary conditions and scarcities, with the result that long term factors such as the most-advantageous location or scale of operation, the availability of raw materials, the size of the market and the adequacy of the financial and technical organisation for successful operation under competitive conditions did not receive the attention they deserved. In the established industries the need during the war period to work multiple shifts and difficulties in the way of securing imports for depreciation and replacement led to a large accumulation of deficit in the maintenance of capacity. It took the country several years to make good this deficit.

The major emphasis in industrial development in India was on *consumer goods industries*, while the development of *basic capital goods industries* lagged far behind. A high and sustained rate of industrial advance could not be achieved without increasing substantially the production of basic industries such as iron and steel, aluminium, ferro-alloys, and other metal-making industries, chemical industries such as caustic soda and ash, fertilisers and petroleum products. In respect of the manufacture of plant and machinery required by various industries only a small beginning had so far been made with the textile machinery industry. The developments in power generation had to depend on generating equipment from abroad. In the manufacture of synthetic drugs and antibiotics and of dyestuffs and organic chemicals, only small beginnings had been made. Thus *industrial growth was neither evenly spread across regions nor across the various industrial sub-sectors*. Industrial structure remained palpably dependent on imports of plant and equipment, raw materials as well as spares.

1.4.3 State of Currency and Banking

Before the British came to India, every independent province had a distinct currency of its own. This prevented any trade transactions outside the limits of those provinces. The East India Company adopted silver rupee coin as the standard unit of currency in 1806. Rupee was also declared the legal tender currency, i.e. everyone was made to accept rupee in various trade transactions. These developments helped to establish a *unified monetary system*, which helped in expansion of the market system.

Banking on the modern lines was introduced in India during the last quarter of the 18th century and the 19th century. In 1840s three *presidency banks* were established, one each in *Bengal* (1840), *Bombay* (1840), and *Madras* (1843). The three banks were amalgamated in 1921 to form a new bank, which came to be known as *Imperial Bank of India* (after its nationalisation in 1955, this bank acquired the name of *State Bank of India*). The Reserve bank of India, which served as the central bank of the country, was established in 1935. Establishment of the chain of commercial banks in the country helped to promote the money and the market system.

1.4.4 State of Industrial Infrastructure

The slow and lop-sided growth of the Indian industry could also be attributed to inadequate availability of infrastructure, specially industrial infrastructure. During the British rule, undoubtedly some steps had been taken to create and spread infrastructure facilities, specifically in the form of irrigation, railways, roads and telephone. But the efforts proved inadequate in relation to the requirements. So that, on the eve of Independence, except for a well laid-down irrigation network in the

of. Communications facilities were outdated and could hardly be of use to facilitate economic transactions by the industrial sector. Likewise, largely because of the indifference shown towards raising generating capacity, power generation in the economy was nearly negligible. It could not have provided a basis for strong industrial growth in future. Similarly, the design of the railway system and the freight policy of the railways, both favoured the movement of manufactured goods and raw materials from and to port towns and not within the country itself. This encouraged export of raw materials rather than their domestic use, and import of industrial products rather than their domestic manufacture. In short, infrastructural inadequacies at the time of Independence proved a formidable challenge for the economic policy-makers in the post-independence era.

1.4.5 State of the Social Institutions

At the time of Independence, the old social institutions of India were in the melting pot. Before the arrival of the British the three prominent social institutions, per se, were the self-sufficient village, the caste system and the joint family system. By the time the British left India, the village community as an isolated, autonomous, self-sufficient unit had almost disappeared. The caste organisation was being increasingly challenged by economic pressure on the one hand, and by the force of new ideas and ideals that contact with Western thought and modes of living had brought with it, on the other. The joint family, though it still had a hold over the rural population, was fast disappearing in the towns and cities.

In short, the social organisation, on the eve of Independence, was in for a change. The economic stagnation that had marked a larger part of the British rule in India prevented a quick change in social norms and ways of living in the direction required of a fast developing economy.

Check Your Progress 2

- 1) Indicate in brief the major causes of low productivity in agriculture.
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- 2) Industrial development of India was insufficient and lopsided during the British rule. Comment.
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- 3) Which types of industries add to the production capacity of the economy?
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1.5 FEATURES OF THE INDIAN ECONOMY ON THE EVE OF INDEPENDENCE

In Section 1.4 above, we have described the situation as it obtained in different sectors of the economy. This description helps us to analyse the basic features of the Indian economy as inherited on the eve of independence in two groups, namely, (i) *India as an underdeveloped and backward economy*, and (ii) *India as a dependent*

economy. This under-development and dependence proved serious constraints on India's ability to remove poverty and provide decent standard of living to its people. This task was further constrained by the fact that the British dealt a parting blow to the economy in the form of the partition of the country that took place along with the independence. While we will study the impact of partition on the Indian economy in the subsequent section, in the present section we focus our attention on analysing the features of the Indian economy as (i) an underdeveloped economy, and (ii) as a dependent economy.

1.5.1 India as an Underdeveloped Economy

The major features that help us classify India as an underdeveloped economy can be identified as follows:

i) Low per capita income, widespread poverty and recurrent famines.

Low per capita income was indicative of the underdeveloped state of the Indian economy. India's per capita income was estimated as Rs.238 in the year 1950 -51 i.e. the average monthly income of an individual in India was less than Rs.20 and the per day average was almost sixty paise in the then prevailing prices. Moreover, income was very unequally distributed. It would mean that every single individual was not in a position to earn even sixty paise a day; some were earning even less than that.

For these reasons, the vast majority of the people lived in extreme poverty. Inadequate and unbalanced diet, primitive housing and often none at all, scanty clothing, bare feet, back-breaking toil, ill health, illiteracy, complete lack of social security and cultural amenities, widespread unemployment and under - employment, class and caste oppression, heavy burden of land revenue, rent and debt, and an unsympathetic and exploitative administration made their life miserable.

Famine was frequent occurrence over the greater part of the British period. When drought, floods and locusts caused extensive damage to crops, lack of income was as much a cause of starvation for large sections of the population, as shortage of food. It was only during the last quarter of the British rule that famine was no longer a frequent calamity. The extension of irrigation (as a remedy for droughts), the spread of railways (which made it possible to rush food from the surplus to the scarcity area), and the establishment of administrative arrangements and procedures to deal with scarcity conditions generally made it possible to avoid famines. However, the serious famine of Bengal in 1943 showed that India was by no means altogether free of famines.

ii) Stagnation in Indian Economy

The growing poverty was the consequence of stagnation that had set in the Indian Economy. Stagnation can be seen from the slow annual compound rates of growth in average per capita income during the British rule.

Table-2 : Annual Compound Rate of Growth of Per Capita Income

Period	Rate (Percentage)
1860-1890	0.64
1890-1920	0.72
1920-1940	0.16
1940-1950	(-) 0.13

Source: M. Mukherji : "National Income", in V.B. Singh (ed.), *Economic History of India, 1857-1956*.

Further evidence of stagnation can be found in the trends of agricultural output and productivity. Total output in agriculture, which was the dominant economic activity of the time, increased by only 10 per cent during the 52 year period of 1893-94 to 1945-46. The index of production of foodgrains came down from 100 in 1894-95 to 1945-46. Per capita output of foodgrains, which is an index of availability shows a decline by 32 per cent during this period. A stagnant agriculture, with ownership concentrated in a small number of absentee landlords, could only result in poverty and backwardness. We can find the evidence of the growing poverty in such things as frequent famines, increasing indebtedness of the cultivator, transfer of land from the cultivating owners to non-cultivating owners, etc. These facts bear testimony to the fact that the Indian poverty was growing.

iii) Mass Illiteracy and High Growth Rate of Population

Poverty and backwardness manifested themselves in mass illiteracy and high birth and death rates. In 1941, at the time of the last population census during the British period, literates were only 17 per cent of the total population, excluding children below 10 years. The percentage was much lower for the rural areas and for women than what the national average suggested. The majority of children did not attend school. This was particularly true of girls. As is generally true of very poor and backward societies, both the birth rate and the death rates were high.

The birth rate was high all through the British period. During 1931-41, the last complete decade of British rule, the birth rate was as high as 45.2 per thousand of the population. This rate was quite close to the biological maximum birth rate. The death rate also remained very high, well over 40 per thousand of the population up to the 1911-21 decade. The death rate began to fall during the last three decades of the British rule. It fell to 36.3 during 1921-31 and further to 31.3 during 1931-41. But this decline was reflection, not of a significant improvement in the living standards but of the considerable success achieved in (i) avoidance of widespread famines, and (ii) control of epidemics. The decline in the death rate added a new dimension to the population problem. Not only was the existing population very large, its growth rate had become very high.

iv) Low Level of Urbanisation

The backwardness of the economy was reflected in a low level of urbanisation. All advanced countries show a high level of urbanisation. In fact, the majority of the population in these countries lived in cities. But under British rule, India, on account of its predominantly agricultural economy, remained overwhelmingly a country of villages. In 1941, the urban areas had only 14.2 per cent of the total population. Thus, six out of every seven persons lived in villages, which were mostly without any modern amenities.

v) Lop-sided Occupational Structure

By occupational structure we mean distribution of workforce among different occupations. These occupations can be divided into three categories: (a) agriculture or primary sector, (b) manufacturing industries or secondary sector, and (c) services, trade and commerce or tertiary sector. In developed countries, larger proportion of population finds role in industries and tertiary sector. In underdeveloped countries, on the other hand, a large part of population depends on agriculture.

Due to the decline of handicrafts more and more people were made to depend on agriculture. This is clear from the following facts: while in 1891 only 60 per cent of

the working population was engaged in agriculture, in 1901 it rose to 65 per cent, and in 1951 to 72 per cent. In many industrialised countries this percentage had fallen to below 10 per cent. This clearly shows that India was going backward. Indian agriculture could not absorb these increasing numbers. Pressure on land increased. As a result, agricultural productivity suffered. India came to depend on other countries for supply of food - the basic necessity of life. The non-agricultural sector was not only small but also had a very unbalanced structure. The predominant activity in this sector was services (trade, money-lending, transport and communications, administrative, defence and social services, professional services, personal services, etc.) and not industry. Within industry, the vast majority was engaged in household and small industries and not in modern large-scale industries. Further, within large-scale industry, light industries, mostly based on processing of agricultural produce, dominated the scene, while modern metallurgical, engineering, building materials, chemical and petroleum industries were quite insignificant. While Europe, America and other advanced world went through an industrial revolution, India remained a predominantly agricultural country, a sort of agrarian appendage to the industrialised world, particularly Britain.

vi) Semi-Feudal Economy

Another manifestation of backwardness was that at the time of independence, Indian economy was a *semi-feudal economy*. This was true both of the agricultural segment and the non-agricultural segment. Capitalism had penetrated the agricultural sector. The process showed itself, on the one hand, in the emergence and growth of a structure of the more substantial cultivators who carried on cultivation largely by employing hired labour and, on the other hand, in the rise and multiplication of a numerous class of agricultural workers who earned their living principally by hiring themselves out to the cultivators.

Likewise, *foreign capital and enterprise had directly created a capitalist sector*. From about the middle of the nineteenth century, the growing trends towards a market economy had also given rise to an Indian capitalist sector. By the close of the British period, this sector had taken firm root in a sizeable segment of the non-agricultural segment of the economy.

In short, on the eve of the independence the elements of capitalist production relations had indeed appeared in varying degrees, almost all over the country and were gaining strength. However, these were not strong enough yet to get rid completely of well-entrenched growth retarding feudalistic tendencies of the past.

1.5.2 India as a Dependent Economy

During the British rule, the Indian economy had been nourished more as an appendage of the British economy. Notwithstanding some significant changes that took place during the inter-war period, the Indian economy continued to carry the scars of colonialism. It continued to be a dependent economy, marked by the following features:

i) Composition of India's Foreign Trade

Composition of foreign trade of any country tells us about the nature of commodities that are exported and imported. Exports, in turn, throw light on the state of economic development of the country. For example, developed countries generally export manufactured goods and import raw materials and gold. Underdeveloped countries on the other hand export raw materials and gold and import manufactured goods.

Before the British rule, India used to sell large quantities of textile manufactures, luxury and semiluxury items to many countries of Europe. Since these countries did not have much to sell to India, they used to send us gold and silver. After the establishment of British rule in India, the composition of India's foreign trade changed. India began to receive those very commodities as imports, which she used to export earlier, namely, cotton manufactures and sugar. On the export side, most important items were agricultural raw materials like raw jute, cotton, hides and skins, oilseeds, tobacco, foodstuffs and above all gold. This shows a clear colonial character of India.

Furthermore, India's foreign trade came to depend solely upon Great Britain. At the close of the 19th century, England supplied about 69 per cent of India's imports. On the other hand, 29 per cent of India's export went to England. After World War I Great Britain began to lose hold on India's foreign trade. Other countries like Japan, America and Germany began to enter India's foreign trade. But still, on the eve of independence in 1947, England accounted for a large share in India's trade.

ii) Dominance of Foreign Capital

Another manifestation of the colonial character of the economy was that foreign (mostly British) capital had entrenched itself in important segments of the modern sector of the economy. The foreign capital investment concentrated on the following sectors of the economy:

- a) Economic overheads, like railways, ports, merchant shipping and public utilities like electricity generation and waterworks.
- b) Primary production or light manufactures for export, mainly tea, coffee and rubber plantations, jute mills and tanneries.
- c) Coal and gold mining.
- d) Banking, finance, insurance and trade.
- e) A few manufacturing industries catering largely to the domestic market such as cotton and woolen textiles, tobacco, paper and printing industries, engineering workshop and construction firms, to a limited extent.

It would be seen that the British capital investment concentrated in those industries that performed a complementary role to the industries in England, i.e. the primary objective of the British investment in India was to promote the interests of England alone. World War II had somewhat weakened the hold of foreign capital. But at the time of independence, the Indian economy had by no means freed itself from exploitation by, and influence of, foreign capital.

iii) Outside Dependence for Capital Goods

On account of its backward economy, the country was almost completely dependent on the rest of the world for plant and machinery needed for economic development. Even the replacement for worn-out capital goods had to be imported. The country also needed to import many essential items to maintain current life and activity. It was in no position to produce modern defence equipment and depended on the outside world for the means of national security.

1.6 PARTITION OF INDIA

Before leaving India, the Britishers gave her another hard blow. They divided the country into two parts, Indian Union and Pakistan. Pakistan consisted of two wings—West Pakistan and East Pakistan. Since 1971, East Pakistan has broken away from

West Pakistan and is now known as Bangladesh. The partition of India left the Indian Union with about 77 per cent territory and 82 per cent of the population of undivided India.

Partition of the country dislocated the economy. A large-scale movement of the Hindu and Muslim population took place. Lakhs of people from Pakistan crossed over to India. Such a large-scale movement of population had never been seen before. It had grave economic and social consequences. The most serious problem was that of the *refugees*. Given help and assistance, it took little time for this problem to be solved. Other problems were equally serious. Some of these important problems were as follows:

- i) **Food Shortage:** Food shortage in India began to be felt after the separation of Burma in 1937. Burma was a rice-producing area. The problem became more serious after the partition. West Punjab and Sind were the '*granaries of India*'. These areas used to supply large quantities of wheat to the whole country. With partition, these areas went to Pakistan. It meant that a very rich source of wheat for India was cut off. As a result, food situation became very serious. It has been estimated that food supply in the Indian Union was deficient by about 25 to 30 lakh tonnes per year. Pakistan, on the other hand, enjoyed a surplus of about 7.5 lakh tonnes.
- ii) **Shortage of raw materials:** Another serious problem related to the supply of raw materials. Many agricultural raw materials, specially raw jute and raw cotton, were produced in areas that formed part of Pakistan. The mills were located in areas that formed part of the Indian Union. With partition, the supply of raw materials was cut off for these mills. The two most affected industries were jute and cotton textile. At the time of partition, there were 112 jute mills in undivided India. All of these were situated in areas that formed part of India. Area which produced about 85 per cent of the total jute in undivided India went over to Pakistan. Therefore, immediately after partition, many of these mills were faced with closure. The same was the fate of cotton textile industry. About 94 per cent of the cotton textile mills were located in the Indian Union, whereas this area produced only 60 per cent of raw cotton of undivided India. Moreover, all good cotton-growing areas were in Sind and West Punjab. Shortage of raw materials was also experienced by the paper, leather tanning and some chemical industries in India.
- iii) **Dislocation of the Industrial Structure:** A major evil consequence of partition was the dislocation of the entire industrial structure. This can be explained in terms of the following effects of partition:
 - a) as already seen above, many important industries were *deprived of their raw materials*.
 - b) some of the industries *lost their markets*. The areas, which went over to Pakistan used to consume large quantities of cotton textile, silk and wool textiles, hosiery, glass, soap, rubber goods etc., partition brought about sudden fall in demand for these goods. Fall in demand was a serious setback for these industries.
 - c) partition was followed by *large-scale movement of population*. Very large number of Muslim artisans, craftsmen and other skilled labour migrated from India to Pakistan. Factories in East Punjab and West Bengal (forming part of the Indian Union) were left without any trained labour.

- d) partition adversely affected the *location of industries*. It became unsafe to locate these industries near border areas. Many such mills had to be shifted from these areas. Otherwise, on economic grounds these areas were more suitable for the affected industries.

In short, the entire industrial structure was dislocated. The problem was more serious in *Punjab and Bengal– the two States that were divided*.

- iv) **Adverse Effects on Railways:** The railway network of the undivided India was also disrupted by Partition. Out of the total railways length of 31,313 miles the Indian Union obtained 24,565 miles. Many of the railway lines that crossed over to Pakistan had to be re-laid, the entire railway system of the border areas had to be reframed. Naturally, it involved huge cost in terms of money, time and effort.

To sum up, partition of the country had serious consequences. India's entire economy was completely dislocated. Agriculture, industries, trade, commerce, transportation and communication were disturbed. The most serious consequence of the partition was that it added to the poverty and misery of the people. Indian economy was already very weak. Its strength was further shaken with partition. In short, *on the eve of independence, Indian economy was a very weak one*. It would hardly stand on its own feet. It required to be nourished properly. Poverty, ignorance and disease were required to be fought on a warfooting.

Check Your Progress 3

- 1) Mention four important features of the Indian economy on the eve of Independence.

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- 2) Mention three features that establish Indian economy on the eve of Independence as a dependent economy.

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- 3) Mention four important problems arising out of the partition of the country.

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- 4) Mention four areas of economic activity where foreign capital concentrated during the British Rule.

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1.7 LET US SUM UP

To sum up, Indian economy was a dependent economy on the eve of independence. It carried all the marks of colonialism and imperialism. It was stagnant and backward. Agriculture was overcrowded. Its productivity was probably the lowest in the world. Urbanisation was at a very low level. There was mass illiteracy and high growth rates of population. There was no industrial structure worth the name. Foreign trade was oriented to feed industrial revolution in England. Thus, on the eve of Independence Indian Economy, was mainly an underdeveloped and dependent economy. At the time of Independence, partition of the country, brought with itself food shortage, raw material shortage and dislocation of Indian Industry.

1.8 KEY WORDS

Autarkic: An arrangement where there is no contact with the outside world.

Commercial crops: Crops that are to be used basically as raw materials in manufacturing industries.

Developed economy: An economy, which is basically an industrial economy making use of advanced technology.

Drain: The term is used to refer to exploitation of the Indian economy by the Britishers.

Famine: Implies non-availability of food for basic subsistence.

Holdings: A unit of cultivation.

Market system: An arrangement wherein all the economic units are to take their own decisions.

Occupational Structure: Distribution of working labour force among different occupations.

Per Capita Income: It is derived by dividing national income by total population.

Self-sufficient Village: An organisation that could produce all the goods that it required for its consumption.

Sterling: The British monetary unit.

1.9 SOME USEFUL BOOKS

Dutt R.C. (1976). *Economic History of India*, Volume I and II, Publication Division, Govt. of India, New Delhi.

Gadgil D.R (1938). *Industrial Evolution of India*, Oxford University Press, Bombay.

First Five Year Plan 1951-56, 1952 Planning Commission, New Delhi. Government of India.

Dharma Kumar (ed) (1982). *Cambridge Economic History of India* Vol. II, Orient Longmans, Hyderabad.

Singh V.B. (ed) (1975). *Economic History of India*, Allied Publishing House, New Delhi.

1.10 ANSWERS/HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) See Sub-Section 1.2.1
- 2) Villages were self-contained production units. All production was consumed within the village itself. There was hardly any outside exchange. See sub-section 1.2.1
- 3) See sub-section 1.2.2
- 4) See sub-section 1.2.3

Check Your Progress 2

- 1) Thoroughly read sub-section 1.4.1
- 2) Thoroughly read sub-section 1.4.2
- 3) See sub-section 1.4.2

Check Your Progress 3

- 1) See sub-section 1.5.1
- 2) See sub-section 1.5.2
- 3) See section 1.6
- 4) See section 1.5.2

UNIT 2 GROWTH AND STRUCTURAL CHANGES IN INDIAN ECONOMY

Structure

- 2.0 Objectives
- 2.1 Introduction
- 2.2 State of the Indian Economy at the Time of Independence
- 2.3 Difference between “Growth” and “Development”
 - 2.3.1 Meaning of Growth
 - 2.3.2 Formula Used for Growth Rate Measurement
 - 2.3.3 Meaning of Economic Development
- 2.4 Measurement of Economic Growth
 - 2.4.1 Difference between the Current Price and Constant Price Estimates
- 2.5 Growth of National Income in India and Comparison with other Countries
 - 2.5.1 Growth Rate in India
 - 2.5.2 Comparison with Other Countries
- 2.6 Factors of Economic Growth
 - 2.6.1 Economic Factors
 - 2.6.2 Non-Economic Factors
 - 2.6.3 Recent Policy Changes
- 2.7 Structural Changes
 - 2.7.1 Meaning of Structural Change
 - 2.7.2 Commodity Vs. Services Sector
 - 2.7.3 Structural Changes within the Principal Sectors
 - 2.7.4 Other Compositions of GDP
 - 2.7.5 Sectoral Employment
 - 2.7.6 International Comparisons
- 2.8 Let Us Sum Up
- 2.9 Key Words
- 2.10 Some Useful Books
- 2.11 Answers/Hints to Check Your Progress Exercises

2.0 OBJECTIVES

In Unit-1 of this block, you have learnt about the state of Indian economy before independence and also on the eve of independence. In the present unit, we will be dealing with the economic growth and structural changes in India over the past decades. Before we start discussing the subject, it will be better to understand the state of the economy at the time of independence. After going through this unit you should be able to :

- Explain the meaning of the term ‘economic growth’;
- Distinguish between the term economic “growth” and economic “development”;
- Analyse growth rates in national and per capita income;
- Describe the factors of economic growth; and
- Examine the structural changes that had taken place in Indian economy.

2.1 INTRODUCTION

Under the British rule, India had a backward agricultural sector as well as an underdeveloped industrial sector. In 1950-51, the per capita income was very low,

there was mass illiteracy. Both the death rate and birth rate were very high. This was due to lack of medical facilities, and low level of nutritional food due to abject poverty. Indian economy at the time of independence was a poor agriculture- based economy. The level of industrial activity was very low, whatever the little industrial development had taken place was lop-sided. The industrial pattern was marked by low capital intensity. The economic development of a country requires strong *infrastructure like banking, insurance, transport, communications, power*, etc. These facilities were lacking in India at the time of independence. All these facilities and services constitute collectively the infrastructure of an economy and the development and expansion of these facilities are an essential pre-condition for increasing agricultural and industrial production in a country. After independence, there has been a tremendous change in the structure of Indian economy during fifty years of planning. The structural change in the composition of the national income is the consequence of process of economic growth. However, structural changes are taking place at a slow pace.

2.2 STATE OF THE INDIAN ECONOMY AT THE TIME OF INDEPENDENCE

The main purpose of the British rule in India was to use the Indian economy as a source of cheap raw materials and a market for the goods manufactured by their industries. Therefore, the British rulers did not bother to develop the Indian economy. Consequently, India had a backward agricultural sector as well as an underdeveloped industrial sector.

In 1950-51, the per capita income in India, at the then prevailing prices, was only about rupees two hundred and forty. There was a mass illiteracy. In India, just before the start of the first plan, less than 17 per cent of the population was literate.

Due to lack of medical facilities, low level of nutritional food due to abject poverty, both the death rate and birth rate were very high. Between 1941-51, the birth rate was more than 3.99 per cent and death rate 2.74 per cent per annum. Thus natural growth rate in population was about 1.25 per cent per annum.

Indian economy at the time of independence was a poor agriculture based economy. About 75 per cent of the population was engaged in the agricultural sector. In spite of this India was not self-sufficient even in food grains production. The agricultural sector entirely depended on rain for irrigation. As and when the monsoon or winter rain failed the country faced a drought.

Indian industries also did not develop. The level of industrial activity was very low. A big proportion of industries were concentrated in a few cities. For example, the industrial development took place around Calcutta and Bombay. These were the places of plantation (Tea plantation around Calcutta and cotton textile around Bombay).

In case a country has a very low per capita income it leads to a vicious circle i.e. low rate of saving, low rate of investment, low production and low per capita income. India faced this condition at the time of independence. Due to a very low level of per capita income, the rate of saving was also very low. This led to a low level of capital formation (investment). Thus, industry stagnated.

Whatever, the little industrial development had taken place was lopsided. Capital goods sector was underdeveloped. The composition of manufacturing output reflects

Main Features of Indian Economy

the predominance of consumer goods industries vis-à-vis producer goods industries. In 1950, the ratio of consumer goods, to producer goods worked out to be 62:38.

Finally, the industrial pattern in India was marked by low capital intensity. Low capital intensity was reflected not only in consumer goods industries like bakery, cloth, sugar, etc. but also in capital goods industries like iron and steel.

The economic development of a country requires strong infrastructure like banking, insurance, transport, communications, power, etc. These facilities were lacking in India at the time of independence.

Briefly, this was the state of the economy just before the start of the planning era in India. In order to get rid of poverty, the first priority was to develop agriculture and industry, which in turn require as well as help in the development of the infrastructure like transport, communication, banking and trade. Agriculture had to be developed fast as it provides raw material for industry as well as food for the population. Similarly, industrial growth provides sustainable development of the economy. All this helps in raising the per capita income.

In the industrial development, it was required to develop both small-scale industries as well as heavy industries. In the long run, heavy industries produce capital goods and help in further industrialisation. Thus, a balance has to be struck in the development of both.

Along with agriculture and industry, there was also a need to develop transport, power, banking, communication and other sectors of a modern economy. In view of the need for a balanced approach to the development of the economy, India opted for a planned economy and the First Five Year Plan started in April 1951.

Check Your Progress 1

- 1) In 1950-51, per capita income in India was only Rs.....
- 2) In 1950-51, both birth rate and death rate were high due to
.....
- 3) State in one sentence, what is a vicious circle of poverty?
.....
.....
.....
- 4) The economic development of a country requires strong
.....

2.3 DIFFERENCE BETWEEN “GROWTH AND DEVELOPMENT”

2.3.1 Meaning of Growth

The term “growth” is used more as a quantitative expression of the economic progress. This means that we consider, as in day-to-day terms, the Gross (or Net) National Product (GNP or NNP) and see how or at what rate it increases or decreases from year to year. Net National Product is also called as National Income. When we divide

the total national product (national income) by the population, we get per capita income. As a student of economic growth, one is also interested in calculating the changes or growth rates in the per capita income in a country. Thus, growth rate whether in national product or in per capita income, is more a quantitative term. For instance, when we say the national product of India in 2000-2001 has increased by 6 per cent or per capita income has increased by 4 per cent, we mean that national product in 2000-2001 was higher than the national product in 1999-2000 by 6 per cent.

2.3.2 Formula Used for Growth Rate Measurement

The formula used by economists for the calculation of the growth rate is simple. In case the growth rate is to be calculated only for one year i.e. in 2000-01 over 1999-2000 the following formula is used:

$$\text{Growth Rate (g.r.)} = \frac{\text{NP in 2000-01}}{\text{NP in 1999-2000}} - 1 \times 100$$

In this g.r. stands for the growth rate and NP for national product. As the growth rate is normally expressed in percentage form, we have multiplied the fraction by 100.

However, when growth rate is to be calculated for a time series i.e. for 5 years, 10 years, 15 years, or more, a different formula, as used for calculating compound interest, is used.

The formula used for calculating growth rate and the compound interest rate is the same. Therefore, students familiar with the formula for calculating the compound interest rate may skip over.

The formula used for calculating the growth rate for more than one year is as follows:

We have

$$Y(t) = Y(0) (1+r)^n$$

From which we get

$$\text{Log } Y(t) = \text{log } Y(0) + n \text{ log } (1+r)$$

$$\text{or } \text{log}(1+r) = \frac{\text{log } Y(t) - \text{log } Y(0)}{n}$$

Therefore

$$r = (\text{anti-log } \frac{\text{log } Y(t) - \text{log } Y(0)}{n} - 1) \times 100$$

However, in the actual calculations we go as follows

$$\text{g.r.} = (\text{anti-log } \frac{\text{log } Y(t) / Y(0)}{n} - 1) \times 100$$

Steps for calculating g.r.

Take the figure for the terminal year

Divide this by the base year figure,

Take logarithm of the co-efficient,

Divide by the number of years,

Take anti-log of this.

For example the GDP in

1980-81 = 122,427 (Rs. In crores)

1990-91 = 212,253 (Rs. In crores)

the g.r. for a period of 10 years (1990-91 - 1980-81) is calculated as follows:

- 1) Take the Ratio of 212, 253 / 122, 427 which is = 1.73371
- 2) Take log of the ratio (i.e., 1.73371) which is 0.23898
- 3) Divide this by the number of years = 10

Which is equivalent to = 0.023898

- 4) Take anti-log of this = which is 1.05657
- 5) Subtract 1.05657-1 = which is equivalent is 0.05657
- 6) Multiply by 100 = 5.66

This is the compound growth rate per cent per annum for the period 1980-81 to 1990-91.

2.3.3 Meaning of Economic Development

No single definition of “economic development” is entirely satisfactory. However, a concise answer may be as follows: Economic development is a process whereby an economy is transformed from a low level of economic activity to a higher level of activity. Development “process” implies the operation of certain forces: these forces operate over a period and embody changes in certain variables. The general result of the process is growth in an economy’s national product.

When we focus only on the growth in national product, we are taking a view of the end result of the development process. If, however, we examine the process in more detail, we observe that many other changes, each of a particular character, accompany the rise in output. We may classify these as changes in fundamental factor supplies and changes in the structure of demand for products.

Particular changes in factor supplies comprise of: (i) the discovery of additional resources, (ii) capital accumulation, (iii) population growth, (iv) introduction of new and better techniques of production, (v) improvement in skills, and (vi) other institutional and organisational modifications.

Particular changes in the structure of demand for products are associated with developments in (i) size and age composition of population, (ii) level and distribution of income, (iii) tastes, and (iv) other institutional and organisation arrangements.

In view of the above, one may interpret economic development in terms of specific developments in factor supplies and product demand. Whereas “growth”, as stated earlier, is more a quantitative phenomenon and evaluation of the end result is measured in terms of national product, while the concept of “development” is qualitative in its nature. It covers both quantitative changes like increase in per capita income, as well as the changes in the economy which are not quantifiable, like development in the level of health of the population, shift in demand from low quality goods to high quality goods, educational expansion, and so on. *The concept of “development” has*

a wider ambit than the term growth. In fact one may call growth as a subset of the set of development of an economy.

Therefore, a student should understand these terms very clearly. Many persons, unaware of the conceptual difference between the two, use these terms interchangeably. However, as a student of economics these two terms should be kept separate.

Check Your Progress 2

1) Explain the term growth rate. State the formula for the measurement of the growth rate in an economy.

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2) Distinguish between the term growth and development.

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3) Write a short note on the meaning of development of an economy.

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2.4 MEASUREMENT OF ECONOMIC GROWTH

Economic growth can generally be measured in four ways:

Increase in Real National Income. One of the measures of economic growth is the increase in the economy's real national product or income over a period of time. But this is not a satisfactory measure because it does not take into account the growth of population.

Increase in Per Capita Income. The second measure of economic growth relates to an increase in the per capita real income. This implies that the rate of increase in real national income should be higher than the growth rate of population. But increase in per capita income may not necessarily raise the real standard of living of the common man. It is possible that even when per capita real income is increasing per capita consumption may fall. This kind of situation can arise when increased income goes to the few rich instead of the many poor. So, this measure also becomes faulty under such a condition.

Growth in Consumption. Economic growth can also be measured from the viewpoint of economic welfare. It is regarded as a process whereby there is an increase in the consumption of goods and services by individuals. But this method is also not free

from defects. First, the consumption of goods and services depends upon the tastes and preferences of individuals. Second, for measuring economic welfare, we should not only consider what is produced but also how it is produced. The increased output might have raised real costs and social costs in the economy.

Social Indicators. Economists have also measured economic growth in terms of social indicators. These indicators emphasise on the quality of the development process. These include: health, food and nutrition, education, employment, housing, clothing, transportation, social security, etc. But problem here arises about the number of items to be included in such an index.

Question now arises what should be real measure of economic growth. All the measure has their relative merits and demerits. However, the main choice is to be made between 'national income' and per capita income. In our opinion, for developed countries, increase in national income should be taken as an index of economic growth while increase in real per capita income should be accepted as a true index of economic growth in under-developed countries. However, most of the economists favour per capita income as an indicator of economic growth.

2.4.1 Difference between the Current Price and Constant Price Estimates

Before proceeding further, it is desirable that students are also told about the meaning of the estimates of current prices and estimates at constant prices.

Current price estimates are prepared by taking quantity of goods produced and multiplying these by current prices. This means, if 1000 bicycles are produced in 1999-2000 and price per bicycle in the year is Rs.1000, the total production at current prices is Rs.10 lakh.

Now, consider that estimates are to be prepared at 1980-81 prices. In this case, we will take production in 1999-2000 of 1000 bicycles and multiply these with prices in 1980-81. Suppose price in 1980-81 of a bicycle was Rs.800. Then total production in 1999-2000 at 1980-81 prices will be Rs.8, 00,000.

Students must note that national income is measured in money values. It consists of a vast variety of goods and services produced in an economy like coal, cloth, chemicals, cosmetics, paper etc. These goods and services cannot be added together. For example, we cannot add the production of bicycles to the production of books, which are both a part of the national product. However, their money values can be easily added.

But when the value of output is used for measuring the rate of growth between two periods, say 1980-81 and 1999-2000, there is a problem. The prices of goods and services are not the same in the two years. In the above example prices of bicycles are not the same in the two years. Total value of production of 1000 bicycles in 1999-2000 is Rs.10, 00,000 and that in 1980-81 for the same number of bicycles is Rs.800, 000. The ratio of the value of production of bicycles tells us that production of bicycles is 1.25 times more in 1999-2000 than in 1980-81. Is that true? It is only the prices of bicycles, which have increased by 1.25 times. The production has remained unchanged at 1000 bicycles. If the production in both the years was valued by the same set of prices this absence of any change in production would be reflected. Such valuation is done at constant prices i.e. prices of a fixed or base year. In the other case valuation is done at the prices of the year in which the output is produced. In that case any comparison will include the impact of the change in prices.

This distinction should be kept in mind because the real growth in an economy is always taken at constant prices. The current price growth also includes price rise and, therefore, does not reveal the real growth in any economy. In the discussion below we also analyse growth at constant (1980-81) prices.

The CSO has been changing the base year from time to time to the changing needs of the economy. Initially, the 1952-53 prices were used as the constant prices. Since then the years of 1960-61, 1970-71 and 1980-81 have been used as the constant price base. Till 1985-86, the CSO prepared national income estimates at the constant 1970-71 prices. But, in 1988 CSO has taken 1980-81 as the base year. In the year 2000, the base year has now been changed to 1993-94. In this New Series, estimates of national product have been made available for the entire period since 1950-51.

Check Your Progress 3

- 1) What are the four methods to measure the economic growth?

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- 2) Explain the difference between current prices and constant prices for measurement of the growth.

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2.5 GROWTH OF NATIONAL INCOME IN INDIA AND COMPARISON WITH OTHER COUNTRIES

2.5.1 Growth Rate in India

We shall now study the trends in the growth rates of national income and per capita income in India.

Central Statistical Organisation (CSO), a government organisation, prepares annual estimates of India's national income and per capita income. It makes these estimates available in its publication entitled "National Account Statistics". CSO estimates these, both at current prices and at constant prices. The estimates at constant prices give us a real picture of growth in national income over a period of time.

Table-1 shows the growth rates of gross domestic product at 1980-81 prices by kind of economic activity. It shows that there was lower growth rate during the first

Table-1 : Growth Rates in the National Product at 1980-81 Prices

(Percent per annum)

Sectors	1950-51 to 1960-61	1960-61 to 1970-71	1970-71 to 1980-81	1980-81 to 1990-91	1990-91 to 1995-96
I. Primary Sector	3.0	2.3	1.5	3.6	2.5
1. Agriculture	3.3	2.2	1.7	3.9	2.4
2. Forestry	0.3	3.0	(-)0.9	(-)1.0	(-)1.7
3. Fishing	5.5	3.5	2.8	5.7	7.8
4. Mining and Quarrying	5.6	3.9	4.9	6.7	4.4
II. Secondary Sector	6.2	5.4	4.0	6.7	6.2
5. Manufacturing	6.0	5.2	4.0	7.2	6.4
6. Construction	6.3	5.5	3.0	3.6	3.8
7. Electricity, Gas, and Water Supply	10.3	11.1	6.8	9.0	8.5
III. Tertiary Sector or Services Sector	4.1	4.6	4.3	6.6	6.8
8. Transport, Communications & Trade	5.3	5.0	4.7	6.4	7.8
9. Banking, Insurance and Real Estate	3.0	3.4	4.0	7.2	7.3
10. Public Administration and Defence	3.1	3.9	3.0	5.5	3.6
11. Other Services	3.1	3.9	3.0	5.5	5.5
Gross Domestic Product	3.9	3.7	3.1	5.7	5.3

three decades of planned development in India. The annual growth rates were 3.9 per cent during the seventies. There has been a marked improvement during the eighties and the nineties. Growth rates were at 5.6 per cent during the eighties and 5.3 per cent in the first half of the nineties. A comparison of the four and a half decades shows that the growth rate in the GDP was lowest in the seventies and highest in the nineties. During the first three decades the annual growth rate was confined to 3-4 per cent whereas over the past one and half decade it has risen to about 5.5 per cent i.e. an increase to more than one and a half time. This appears to be the result of a large improvement in growth rate shown by several non-agricultural sectors particularly, fishing, mining and quarrying, manufacturing, banking and insurance and public administration and defence.

Per capita income at 1980-81 prices and growth rates over the decades are given below in Table-2.

Table-2: Per Capita Income at 1980-81 Prices and Growth Rates

Year	Per Capita Income (Rs.)	Growth Rate (% per year)
1950-51	1,127	-
1960-61	1,350	1.8
1970-71	1,520	1.2
1980-81	1,630	0.7
1990-91	2,222	3.1
1995-96	2,454	2.2
1998-99*	9,738	5.0

Source: Based on data contained in the Economic Survey, 1999-2000, Government of India, Ministry of Finance.

These data reveal that growth rate in per capita income was highest during the nineties and lowest during the seventies.

2.5.2 Comparison with Other Countries

For purposes of comparison with other countries, the period considered is 1980 to 1994. For international comparison, the GDP used is also in terms of US dollars.

Table 3 : Selected Growth Indicators, 1980-94

Country	GDP (US \$ Bn.)		Average annual growth rate (%) GDP		Per Capita Income (\$) 1995
	1994	1980	1990-94	1980-90	
India	293.6	172.3	3.8	5.8	340
USA	66.48.0	2708.1	2.5	3.0	26,980
Japan	4591.0	1059.2	1.2	4.1	39,640
Germany	2046.0	819.1*	1.1	2.2	27,510
France	1330.4	664.6	0.8	2.4	24,990
Italy	1024.6	452.6	0.7	2.4	19,020
U.K.	1017.3	537.4	0.8	3.2	18,700
China	522.2	201.7	12.9	10.2	620
Korea, Rep.	376.5	63.7	6.6	9.4	9,700
Australia	332.0	159.7	3.4	3.5	1,872
Indonesia	174.6	78.0	7.6	6.1	980
Thailand	143.2	32.3	8.2	7.6	2,740
Israel	77.8	22.7	6.2	3.5	15,920
Malasia	70.6	24.5	8.4	5.2	3,890
Singapore	68.9	11.7	8.3	6.4	26,730
Philippines	64.2	32.5	1.6	1	1,050
Pakistan	52.0	23.7	4.6	6.3	460
Egypt	42.9	22.9	1.1	5	790
Bangladesh	26.2	12.9	4.2	4.3	240
Sri Lanka	11.7	4.0	5.4	4.2	700
Kenya	6.9	7.3	0.9	4.2	280

*Relates to Federal Republic of Germany before unification.
Bn = Billion

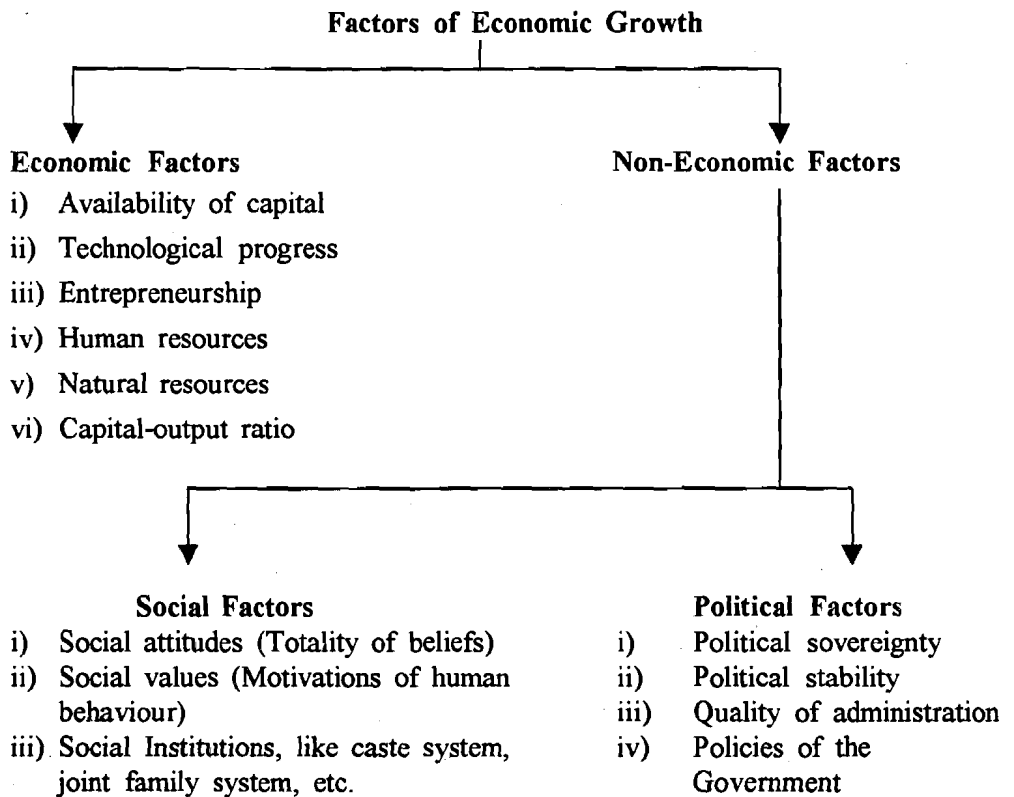
India's per capita income in 1995 was \$ 340 (Table-3). This is much lower when compared with developed countries. Japan has the highest per capita income at \$ 39,640. The other developed countries are US, UK, Germany, etc. In 1995 India's per capita income was lower than that of Pakistan, which got independence along with India.

Check Your Progress 4

- 1) The growth rate in the per capita income between 1980-81 and 1990-91 was per cent.
- 2) India's per capita income in 1995 was US\$,
compared to this per capita income in Japan was US \$

2.6 FACTORS OF ECONOMIC GROWTH

The process of economic growth is broadly determined by two types of factors—*economic factors and non-economic factors*. Non-economic factors can further be grouped into social and political factors. Economic growth is not possible without these factors encouraging growth.



2.6.1 Economic Factors

Some important economic factors, which have retarded the growth of the Indian economy during the fifties, sixties and the seventies, are as follows:

- i) **Availability of Capital:** A major bottleneck in the growth of the Indian economy has been the non-availability of adequate quantity of capital, without adequate quantity of capital; India could not make economic progress to the desired extent. Not only the stock of capital were quite low, the rate of capital formation was also slow.
- ii) **Technological Progress:** Technological progress means changes in the methods of production as a result of innovations. It leads to increase in productivity of labour and capital. Indian economy technologically has been backward which restricted the productivity.

India's policy of globalisation and liberalisation started in 1991 is expected to help in raising the availability of capital by way of inflow of foreign capital and

Check Your Progress 5

- 1) Economic factors responsible for growth are:
 - (i) Availability of capital, (ii) Technological Progress, (iii) Entrepreneurship, (iv) Human resources, (v) Natural resources (vi) Capital, and output ratio.
- 2) The policy of globalisation indicates outward looking strategy of development. It includes movement of goods, services, capital, technology and labour without having much of control. With the arrival of foreign investment and technology the rate of savings and capital formation is expected to increase.
- 3) The recent policy changes in the economy started from July 1991 with the announcement of industrial policy. Side by side important policy changes have also been made in various sectors of the economy like trade, finance, insurance, banking, tax rates etc.

Check Your Progress 6

- 1) Structural change refers to change in the relative significance of different sectors in the economy. Structural change occurs when the contribution of different sectors viz., primary, secondary and tertiary sectors - to the country's national product changes. Thus, structural change refers to the change in the structure of production.
- 2) See section 2.6.1 and frame your answer.
- 3) See section 2.6.2 and attempt your answer.
- 4) In 1991, 65.5 per cent of the working population was employed in the primary sector.
- 5) In India in 1994, 30 per cent of GDP came from agriculture from in USA the same was 2-3 per cent agriculture in its GDP and China's share of agriculture in its GDP was 21 per cent

UNIT 3 CURRENT PROBLEMS AND ISSUES

Structure

- 3.0 Objectives
- 3.1 Introduction
- 3.2 Problem of Poverty, Unemployment and Inequalities
 - 3.2.1 Measurement of Poverty
 - 3.2.2 Magnitude of Poverty
 - 3.2.3 Causes of Poverty
 - 3.2.4 Government Policy
- 3.3 Population Problem
- 3.4 Inadequate Availability of Infrastructure
- 3.5 Problem of Rising Prices
- 3.6 Role of the State and Public Enterprises
- 3.7 Black Economy and Corruption
- 3.8 Problem of Low Productivity
- 3.9 Balance of Payments Constraint
- 3.10 Fiscal Constraints
- 3.11 Regional Imbalance
- 3.12 Issue of Environmental Degradation
- 3.13 Let Us Sum Up
- 3.14 Key Words
- 3.15 Some Useful Books
- 3.16 Answers/Hints to Check Your Progress Exercises

3.0 OBJECTIVES

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

- Define the current structure of the Indian economy;
- Explain the place of the Indian economy in the prevailing global order;
- Identify the various problems that the economy suffers from currently;
- Learn the limitations, which the economic policy makers have to put up with;
- Suggest some important direction and suggestions to policy makers; and
- Find out the linkages between different aspects of the economy.

3.1 INTRODUCTION

In Unit-1 and Unit-2, so far we have observed as follows:

- a) Independent India inherited a weak stagnant economy plagued by all-pervasive poverty; and
- b) Over the last five decades beginning with the First Five Year Plan in 1951 some significant changes have taken place, both in terms of growth and structure of the Indian economy. However, notwithstanding significant growth and structural changes, the economy has been faced with a number of problems and issues. Some of these problems have been with us as legacy of the past; as a matter of fact these very problems had prompted us to adopt the course of planned economic development, for instance, the problem of all-pervasive poverty is closely linked with and finds expression in problems like widespread unemployment and gross disparities in income distribution. Another set of problems has arisen in the course of the process of economic growth, e.g., problem of a sustained and persistent increase in the price level, poor performance of public enterprises,

ecological degradation, infrastructural inadequacies, regional disparities in growth, balance of payments difficulties, inadequacy of financial resources with the state, etc. While a detailed discussion of many of these problems and issues will follow later in this course, in the present unit we will give you an over view of the same. This will enable the learners to understand and appreciate the current features of the Indian economy.

3.2 PROBLEM OF POVERTY, UNEMPLOYMENT AND INEQUALITIES

Poverty has been centuries old and deep-rooted in the Indian economy. It has not been possible to remove poverty altogether despite sustained efforts over the last four and a half decades of planned economic growth.

3.2.1 Measurement of Poverty

Poverty is measured with the help of a concept namely poverty line. Poverty line is defined as that level of income, which enables a household to purchase just about the bare means of subsistence. The poverty line in India has been drawn as follows: (i) A minimum level of nutrition necessary for basic subsistence has been laid down on the basis of studies by nutrition experts. For a person living in rural areas this level has been fixed at 2,400 calories per day. For a person living in urban areas this level has been fixed at 2,100 calories per day. Higher requirement of calories in rural areas than in urban areas is justified by the nature of economic activity in the former, as these involve more physical effort; (ii) taking into account the cost of the diet, which can give the required calories, a poverty line has been estimated separately for rural areas and urban areas. It has been estimated at Rs.49.1 per month for rural areas and at Rs.56.6 for urban areas at 1973-74 prices. Apparently, as the general price level moves up, the costs of this minimum diet also move up thus raising the poverty line. Thus, at 1992-93 prices, the poverty line has been estimated at Rs.228.0 and Rs.264.0 per month for rural and urban areas respectively, and (iii) line of poverty has been defined at a household level. A household consists of 5 members for the purpose of this definition. Thus, a rural household will be said to be living below the line of poverty if its annual income at 1992-93 prices is less than Rs.13, 680. This amount is calculated as follows:

$$\text{Rs.}228.0 \times 5 \text{ members} \times 12 \text{ months} = \text{Rs.}13, 680/-.$$

Likewise, an urban household will be said to be living below the line of poverty if its annual income, at 1992-93 prices, is less than Rs.15, 840 calculated as follows:

$$\text{Rs.} 264.0 \times 5 \text{ members} \times 12 \text{ months} = \text{Rs.}15, 840$$

3.2.2 Magnitude of Poverty

The Planning Commission in India has been preparing estimates of the number of people living below the poverty line as defined above. The results are tabulated in Table-1 below:

Table-1: The Percentage of Population below the Poverty Line

	1972-73	1977-78	1987-88	1993-94
Rural	54.10	51.20	39.9	37.27
Urban	41.20	38.20	38.20	32.36
All India	51.50	48.30	38.86	35.97

It would be seen as follows from Table-1:

- 1) More than one-third of India's total population lives in poverty.
- 2) The magnitude of poverty in rural India is higher than in urban India. Thus, whereas about 37.27 per cent of rural population lives in poverty, in urban India the proportion is less at 32.36 per cent.
- 3) Over the years there has been a little decline in the proportion of persons living below the line of poverty. However, given the fact that the population has been increasing at a fast rate, the absolute number of people living below the poverty line has increased.

3.2.3 Causes of Poverty

Poverty arises from lack of income or low income. Income, in turn arises from work in the form of earnings of the self-employed and wages of the hired workers. It also arises from assets owned by an individual or household in the form of rent or interest. Absence of work, i.e. employment, is therefore one of the important causes of unemployment. Another cause is the distribution of assets. Persistence of poverty in India over the years may therefore be attributed to (i) inadequate employment opportunities, (ii) disparities in the assets distribution, and (iii) slow rate of economic growth has been an equally important cause of the persistence of poverty.

- i) **Inadequate Employment Opportunities:** Unemployment implies absence of a source of income and hence it becomes a major cause of poverty. Creation of employment opportunities is, therefore, one of the ways of reducing the incidence of poverty. The employment-creation capacity of growth in the Indian economy has been limited. In a labour-surplus over-populated country like India any fight against poverty could be successful only if growth of the economy brings about new job opportunities. The rate of creation of new job opportunities has to be faster than the rate at which the labour force increases. Only then, it would not only be possible to provide jobs to the already unemployed but also to the new entrants in the labour market. Provision of jobs thus becomes the sure antidote to poverty.

But if the rate at which new jobs are being created in the economy falls short of the rate at which labour force is increasing, the result is that the magnitude of unemployment in the economy will be on the rise.

In the Indian economy the rate of labour-absorption has been severely limited, especially in the manufacturing sector of the economy. Therefore, increasing labour force has been falling back on low productivity agriculture for eking out their living. Apparently, the agricultural sector too has failed to absorb them, and consequently there has been widespread unemployment and poverty.

- ii) **Disparities in income distribution and ownership of assets:** The state of poverty in India cannot be fully explained without a reference to the distribution of income. The fact that poverty has tended to perpetuate all along the process of economic growth goes to establish the fact that the income generated during this process has not been equally distributed. The asset-owning class has been in a position to corner a larger share of the generated income; where as the asset-less class has been denied these benefits. This fact has been brought out very clearly by a number of studies on the subject; results of a few of these are presented in Table-2 below:

Table-2: Distribution of Income in India

Source	NCAER (1964-65)	World Bank (1994)
Share of top 10percent	33.5	25.0
Share of bottom 20percent	7.5	9.2

It would be seen that whereas 10 percent of the total population at the top of the ladder cornered 25 percent of the total income generated in the economy, 20 percent of the total population at the bottom had to be contented with a meager 9 percent of the total income generated.

Inequalities in the distribution of income could be attributed by and large to the structure of asset ownership in the economy. In the rural areas, land is the asset par excellence. There are sharp inequalities in the distribution of land ownership. Thus, whereas large land holdings with land areas of more than 10 hectares number about 5 percent of the total holdings in the country, they account for about 50 percent of the total cultivated land. On the other extreme, marginal and small holdings with size area of upto 2.5 hectares number about 55 percent of total holdings in the country, but have only about 10 percent of the total land area under cultivation. These facts bring out the prevailing inequalities in the land distribution.

Likewise, in urban areas, inequalities manifest themselves in the form of ownership of capital, skills and technology. Those in possession of these scarce but highly rated economic inputs have been in a position to earn high scarcity rents for their services in the form of high salaries and perks. On the other hand, untrained and unskilled large mass of labour have not been in a position to earn their bare means of subsistence.

iii) **Slow Rate of Economic Growth:** As you have observed in the earlier unit primacy was accorded to economic growth not only to improve the level of living but there was also a need to accelerate it so as to attain a sustained rise in the level of living of the populace. Over the last five decades, the Indian economy has been growing at an annual average rate of about 4 per cent. During this period, India's population too has increased at the rate of about 2 per cent per annum. Therefore, the annual average rate of growth of per capita income in India during the period 1995-2000 works out to no more than 2 per cent per annum. This rate has been inadequate on several counts.

- a) it has been less than what we had targeted to achieve in our five year plans,
- b) it has been much less than the rates at which other developing economies, specially countries like South Korea, Taiwan, Malaysia, Indonesia, Thailand, Singapore, Hong Kong, etc. have been growing, and
- c) More important, the rate of economic growth has been much less than the requirements.

Inadequacy of the effort is proved by the fact that notwithstanding the growth of the economy and the accompanying structural changes it has not been possible to make a sizeable dent on the state of poverty in the country.

3.2.4 Government Policy

The Government policy to fight poverty has been determined by the nature and causes of poverty in India. From this point of view, the whole period of 1951-2000 can be divided in two sub-periods, viz. (i) 1951-75, and (ii) Post-1975.

- i) During the period 1951-75, the Government relied primarily on fast economic growth to alleviate the economic condition of the poor. Growth was to be accelerated in different sectors of the economy. It was believed that economic growth itself would create conditions that would generate income among the poor households and help them rise above the line of poverty. This process of growth taking care of the poor was based on the assumption of the working of 'Trickle-down' i.e. income generated in different producing sectors filters down to poorer households. The process of growth was supplemented by certain fiscal measures, which aimed at redistribution of income and productive assets. Simultaneously, an effort was also made to incorporate measures in the policy that would promote and generate new employment opportunities. Apparently, we could not succeed on either of the fronts, relating to the working of trickle-down or employment creation, or redistribution of income. These failures prompted the Government to redesign the strategy.

- ii) During the post-1975 period, the important element of the poverty-alleviation strategy has been the direct intervention by the state in favour of poor. This has taken the form of various poverty-alleviation programmes, like the Integrated Rural Development Programme (IRDP), Jawahar Rojgar Yojana (JRY), Employment Assurance Scheme (EAS), Prime Minister' Rozgar Yojana, etc. The various poverty-alleviation programmes seek to generate new employment opportunities for the poor households. The new employment opportunities could be either in the form of wage-employment on state-run labour intensive capital projects, or in the form of self-employment generated out of the capital assets provided by the state. Resources for these programmes come out of the budget as well as from the financial institutions. The Government has renewed its commitment to intervene in the growth process in favour of the poor both in the New Economic Policy statements and the Minimum Common Economic Programme.

Check Your Progress 1

1) How do we measure poverty in a country?

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2) Identify the group of people who normally live below the line of poverty in rural India and urban India.

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3) Mention three important causes of poverty in India.

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3.3 POPULATION PROBLEM

Closely allied to the state of poverty is the problem arising out of large and rapidly growing numbers. Poverty is both a result and a cause of fast-increasing population in the country.

Ordinarily, a large population should be looked upon as an asset, which can contribute to and play a critical role in accelerating the rate of economic growth in the economy. Population is the primary source of the most important and active factor input, i.e., labour. A larger supply of labour ensures a proper utilisation of other factor inputs, especially natural resources. Inadequate availability of labour results in underutilisation of a nation's resources, and hence prevents an economy from growing to its full potential.

Likewise, a large size of population also provides a large domestic market for its products. Presence of a large domestic market provides an inducement for larger investment and thus may help in setting-in of what may be called a virtuous circle of prosperity. Larger investment generates larger employment and income, and thus makes available higher amount of savings for capital formation.

Based on the above arguments, a large population base has always been considered a strong asset and a factor in economic growth.

But, a large population growing at a rapid rate can also become a drag on economic growth. This will be especially so in a situation where complementary resources are not available. In the absence of adequate availability of complementary resources, especially capital, a large proportion of labour force remains unemployed. This part of population does claim a share in the national product without contributing anything to its generation. Consequently, a significant part of investment in an economy is not available to it for the purpose of raising the general standard of living of the people, since this part is consumed away in sustaining the additional work force. This part of investment can be called 'demographic investment'. It is in this sense that a large population become a liability and hence prevents an economy from growing to its potential.

Of the two scenarios drawn above, India's position can be traced to the last one, i.e., a large and rapidly increasing population is becoming a liability on economic growth.

Check Your Progress 2

- 1) Mention two ways in which large population can contribute to rapid economic growth.

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- 2) Explain how a large and rapidly growing population retards economic growth?

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3.4 INADEQUATE AVAILABILITY OF INFRASTRUCTURE

All the basic maladies from which the Indian economy suffers and about which we have talked so far could have been easily solved only if the rate of economic growth had been fast enough.

But the growth itself has suffered from inadequate availability of infrastructure. Infrastructure refers to all those supporting structures that help direct production activities like agriculture and industry. Infrastructure can be divided in two groups, viz., (a) economic infrastructure, and (b) social infrastructure.

Economic infrastructure consists of services like power, transport and communications, irrigation, industrial estates and technical parks, etc. Social infrastructure, on the other hand, consists basically of human development services like education, medical facilities, sanitation, sewerage, drinking water, etc.

Non-availability of adequate infrastructure places barriers on the growth process, e.g., movement of goods for exports gets adversely affected if the ports are overcrowded and congested. Likewise, skilled manpower will not be available to industry and the commercial sector in case training facilities for the personnel are not available.

The fact that the supply of infrastructure has fallen short of its requirements can be observed all-around in the Indian economy in the form of growing pressures on all types of services, overcrowded roads, railway wagons, ports and aviation sector, power breakdown, restrictions and frequent cuts, obsolete communication facilities, widespread illiteracy, poor living conditions and growing homelessness, etc.

Inadequate availability of infrastructure in turn can be traced to the fact that in our plan programmes we failed to provide adequate financial resources to build up and match the capacities to the fast-increasing requirements of the economy.

Now, when the Indian economy is increasingly getting globalised, any failure on the infrastructure front may prove disastrous not only for individual enterprises, but for the economy as a whole. Hence, it is imperative that large financial resources are mobilised, both in the public and the private sector to build up infrastructure to the international standards. (for further details see Block-3 Unit-11)

3.5 PROBLEM OF RISING PRICES

Both from the point of view of poverty-alleviation and rapid economic growth, a fast rise in the general price level is a cause for concern. A sustained increase in the general price level over a long period of time is called inflation. Inflation in India had its origin in the development programmes that were formulated and launched towards the mid-fifties. The general price level has been continuously moving upwards since then; what has differed during different periods has been the rate at which the general price level has been rising.

For a developing economy inflation need not be a serious issue of concern, as long as households and investors can anticipate it and provide against it. The problem is that in an underdeveloped economy, given the nature of economic institutions and

of control. In such a situation, different investment decisions are postponed. This may cause stagnation in the economic activity. As India's experience has demonstrated, it is not easy to control inflation once it sets in. A lasting solution to the problem of inflation is to be found in raising the level of productivity and output in the economy. After all, ultimately inflation is a reflection of demand-supply imbalance, and it is this imbalance that need be corrected. (For Further details read the next unit i.e. unit-4))

3.6 ROLE OF THE STATE AND PUBLIC ENTERPRISES

India inherited a weak, depleted economy at the time of independence; in pursuit of its 'tryst with destiny' India sought to achieve rapid economic growth with social justice. The goal could not be achieved without an active participation by the state. The state had to assume an active role in different spheres of economic activity, be it industry or trade. The state had to formulate comprehensive plans of development and also provide means for their implementation. The state had also to fill the entrepreneurial gaps.

Five Year Plans were adopted as a vehicle of growth. The commanding heights were sought to be passed on to the public sector. A comprehensive system of controls and regulations was laid down to channelise private capital and enterprise in desired directions. Inward-oriented growth strategy was formulated. As a part of this growth strategy, import substitution, rather than export promotion, became the focal point of priority. Domestic industries were sought to be developed behind the wall of high protective barriers. Inflows of foreign capital were not allowed except in the form of borrowings and a little in the form of minority equity participation in collaboration with Indian capital.

This model of growth envisaged the state as the pilot of growth machine. It was looked upon as the ultimate decision maker. The state made its presence felt in the economy by arranging to produce things as varied as milk and bread, and heavy electrical equipment and heavy chemicals.

The state ran into difficulties when it could not generate sufficient resources to meet its liabilities, both domestic and international. On the domestic front it began to borrow even to meet its current consumption requirements; internationally current account deficits assumed menacing proportions. The domestic production structure, developed as it had in a highly protected framework, could not stand the winds of competition. This was true both of the public sector and the private sector.

The role of the state came to be defined afresh at the beginning of the 1990s. The state began to withdraw itself from different areas. Initiative was sought to be passed on to the private capital and enterprise. The process is not complete yet. Gradual withdrawal of the state too has brought to the forefront a few critical issues like investment in infrastructure, social sectors and areas of low priority for the private capital, provision of safety nets for the poor and the weaker sections of the society, and the need to pursue the goals of self-reliance and social justice. These issues are still open for debate.

3.7 BLACK ECONOMY AND CORRUPTION

The all pervasive system of controls and state domination as practised in the past has promoted corruption and generation of black income. An independent global survey of 54 economies finds India among the top five corrupt countries. The roots of corruption can be traced to many factors, among which the more important are as

Main Features of Indian Economy

- 1) lack of transparency in rule and bureaucratic connivance
- 2) scarcity of goods and services, and control on their distribution
- 3) red tape which encouraged the use of bribe as speed-money, and
- 4) the archaic laws.

Corruption as an institution breeds inefficiencies and leads to less than optimum use of available resources. Apparently, it slows down the process of economic development.

Corruption, in turn, contributed to the growth of the black economy. The term '*black economy*' encompassed all those transactions, which are not entered in the books of accounts and are not reported to the competent authorities. The practice occurs either because the transactions are illegal or because the transactors intend to evade the tax liability.

The black economy in India has been a matter of concern for a number of years. It has grown to enormous dimensions. It has become a threat to the ability of the official monetary-credit policy mechanisms to manage demand and prices in several vulnerable sectors of the economy. The fact is that it has permeated every section of society and every sector of the economy.

One of the important causes of black economy can be traced to: (i) high rates of taxation and large dependence on indirect taxes rather on direct taxes; accompanied by massive tax evasion; (ii) the electoral system and need for funds for the political parties; and (iii) general deterioration in the standards of public morality.

The official response to the issue has been to offer both carrot and stick to the holders of the black wealth and income to abandon the parallel economy and travel back on the open, transparent route. But the policy has achieved only limited success.

3.8 PROBLEM OF LOW PRODUCTIVITY

A major factor in the slow growth of the economy has been relatively lower levels of productivity. This is true of all the sectors of the economy, be it agriculture, industry or services. Low productivity in turn can be traced to the use of backward techniques of production and lack of modern technology.

In the agricultural sector, introduction of new technology is restricted by inadequate capital formation. A large part of Indian peasantry lives at subsistence level; they are hardly in a position to make their both ends meet. They have hardly any savings available with them. The large farmers have resources available with them, in the form of surplus income. But a large part of these resources are diverted to non-agricultural activities. Investment in the agricultural sector suffers cumulatively.

In the industrial sector, productivity suffers again due to inadequate investment in technology and modernisation. The modern technology is a capital-intensive and is more suited to those industries, which enjoy economies of scale. Capital-intensive nature of technology makes it imperative that the production units should have access to large funds, which they do not have. Similarly, in order to reap economies of scale they need to have large markets. This again is not available to them both due to limited size of the domestic market and their inability to tap the export market. Poor productivity is further reinforced by poor infrastructure, both economic and social. Poor productivity implies a relatively higher cost of production. This adversely

affects the competitiveness of products, and hence makes it more difficult to adopt productivity-improving techniques of production.

Improvement in productivity holds the key to achieve success in varied development programmes that have been launched. Improvement in productivity alone can help us accelerate the rate of economic growth. This in turn will help us overcome many a problem that owe their origin to limited availability of resources.

3.9 BALANCE OF PAYMENTS CONSTRAINTS

Balance of Payments (BoP) is an annual statement of accounts of a country relating to its economic transactions with the rest-of-the-world. It records the monetary values of all these transactions. A country may export both goods and services, including technology, to the rest-of-the-world, for such exports it receives payment in an internationally accepted foreign currency (also known as hard foreign exchange). Similarly, against its imports of goods and services during a year it has an obligation to make payment to the suppliers in the rest of the world. This payment again is to be made in hard foreign exchange. Apparently, a country needs to earn more of foreign exchange through its exports of goods and services if it needs to import increasingly larger quantity of goods and services.

In other words, the inflow of foreign exchange through exports need to be balanced with the outgo of foreign exchange due to imports. If the inflow falls short of the outgo, the country incurs a deficit in its BoP. This deficit can be financed either by drawing down its own foreign exchange reserves, or by arranging a capital inflow in form of borrowings or investment by foreign residents in the domestic market. As long as a country can arrange an equivalent value of inflows, BoP deficits need not be a constraint on economic growth, specially in the short run, although the long-run implications in the form of debt-servicing and repatriation of investment income cannot be ignored too long.

In a situation, where the funding of BoP deficits cannot be arranged, and also if sufficient foreign exchange reserves are not available with the government, the country would be forced to cut back on its imports. This would adversely affect the pace of economic growth.

India's BoP situation is to be seen in the light of the above. Ever since the process of development planning began in India, with the launching of the First Five Year Plan on April 1, 1951, India needed to import increasingly larger quantities of goods, (consumer, intermediate and capital), to meet its domestic requirements. A developing economy like India could not aspire to meet the rising import-will by its own export-earnings. It had to take resort to borrowings abroad. As a matter of policy, inflow of foreign capital in the form of investment by foreigners was not encouraged. The uninterrupted inflow of foreign debt enabled us to meet our rising burden of BoP deficits. We resorted to large borrowings in the hope that sooner or later the economy would be in a position to generate large export surpluses that would enable us to repay the loans.

But that was never possible and our exports failed to pick up. Our debt obligations went on increasing. Debt servicing began to eat away a large part of our foreign exchange earnings, leaving little balance to import the goods that we needed for accelerating our rate of economic progress. BoP deficits emerged as the most important constraint on our growth process.

Towards the beginning of the decade of nineties, we formulated a new strategy to overcome the BoP constraint on economic development. As a part of this strategy, export-sector began to be given top-most priority in our developmental efforts. Along with this our policy towards foreign capital underwent a shift. We laid down a red carpet to foreign investment, and extended many an incentive to them. Consequently, the overall economic environment has undergone a change. There has taken place a large inflow of foreign capital in the form of investment by the foreigners in India. Besides the export sector gained a vitality of its own. Consequently, India got some respite from the BoP bottlenecks during this period; an indicator of this is the growing size of foreign exchange reserves. However, the respite is not to be taken as a permanent cure of the problem. The ultimate remedy of the problem lies in our ability to generate large exports that would enable us to meet all our external liabilities in foreign exchange.

3.10 FISCAL CONSTRAINTS

Fiscal situation of a country relates to the finances of the government. Two important aspects of government's finance are: (i) government's revenue, and (ii) government's expenditure. A government collects revenue from different sources like taxes, surpluses generated by enterprises owned by it etc. Likewise, a government has to incur expenditure under various heads like provision of defence, social and community services and economic services of various kinds etc. If the government expenditure during a year exceeds its revenue, it has to take resort to borrowings, both from domestic and foreign sources. In the event that *borrowings do not suffice to cover the deficit between the expenditure and the revenue, a government can resort to printing of new currency notes, often referred to as deficit financing or monetised deficit.*

Borrowing and deficit financing can also be used as instruments of development finance provided, the financial resources raised through these means are employed for the purposes of capital formation in the economy. Such use of the resources in capital formation, on the one hand, generates its own means of repayment and on the other it generates additional supply of goods and services. This helps to keep inflationary forces under check.

However, if by any chance the government is forced to (or is tempted to) make use of these easy means of money to finance its own needs of consumption or to meet its immediate liabilities that do not directly add to the production potential of the economy, these may pose a serious constraint on the developmental efforts of the economy. Increasingly larger part of the revenue to be generated by the government in future would have to be diverted to meet its liabilities arising out of its profligacy. It will have little or no control over its finances, and would not be in a position to contribute to capital formation. The whole growth proceeds would come up against serious barriers.

India too has been faced with a similar situation for some time now. Welfare state as India is, the range and scope of the responsibilities and activities of the government has been continuously increasing. This has involved a manifold increase in government expenditure. Increase in government expenditure has called for the need to generate additional revenues.

Till the end of the seventies, the government revenue used to be more than the government's current expenditure on defence, public administration and other related

economic activities. The surplus of revenue over expenditure was used to finance the capital formation. Capital formation was also funded by borrowings and deficit financing. These helped to raise the production potential of the economy, although at times their adverse effects on the process of economic development, specially in the form of inflationary tendencies, could not be ignored altogether.

The situation headed for a disaster with the on set of the decade of eighties. A large part of the government revenue began to be preempted in such uses as defence, interest payments and subsidies. These commitments could not be negotiated, and consequently there emerged revenue deficits. A part of these deficits had to be met by borrowings, with two immediate effects, one a slowdown in the rate of capital formation, and two a sustained rise in government debt and hence a further drain on government revenue.

The government responded by announcing a package of economic reforms. The new structural adjustment programme seeks to restrict the range and scope of governmental activities, so as to keep a check on expanding governmental activities. Also subsidies are being brought under control. Simultaneously, tax structure has been simplified as also the tax administration has been streamlined to gather larger tax-revenue, both from direct and indirect taxes. An effort is also on to improve the functioning of the public enterprises so that they generate and make available more resources to the government.

On the whole, the fiscal situation at present is precarious. It leaves little or no flexibility with the government to charter the economy along a desired direction.

Check Your Progress 3

1) What is economic infrastructure?

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2) Mention important components of social infrastructure.

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3) How inadequate availability of infrastructure retards economic growth?

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4) What can be identified as the lasting solution to the problem of inflation?

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5) What accounts for the Balance of Payments problems being faced by India?

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3.11 REGIONAL IMBALANCE

Another issue in growth that needs be referred to is the phenomenon of regional imbalance. Regional imbalance refers to unequal or disproportionate development of various regions within a country. Several indicators can be used to assess regional imbalance in India. Table-3 gives some socio-economic indicators of regional imbalance. The states have been arranged in the descending order of per capita income.

Per Capita Income Differences in States

The data reveal that at 1980-81 prices, the per capita income of India was Rs.2,229 in 1991-92 but only 8 states viz., Goa, Punjab, Haryana, Maharashtra, Gujarat, Arunachal Pradesh, Tamil Nadu and Karnataka had per capita income higher than the all-India average. At the other extreme was Bihar with per capita income of the order of Rs.1,091, followed by Orissa (Rs.1,512) and Uttar Pradesh (Rs.1,589). If we treat Goa as one of the small states in the special category, even then the per capita income of Punjab as Rs.3,869 was 3.5 times higher than the per capita income of Bihar as Rs.1,091. The point, which needs to be mentioned, is that in 1980-81, the per capita income of Punjab was Rs.2,674 and that of Bihar was Rs.917. This implies that the maximum minimum ratio was 2.9 in 1980-81. Obviously, the rate of growth of per capita income of Punjab was comparatively much higher than that of Bihar. Consequently, regional disparity has widened.

Poverty Ratios in Various States

The figures of the percentage of population below the poverty line for 1987-88 reveal that for the country as a whole, this percentage was 39.3 but Maharashtra, West Belgal, Orissa, Bihar, Madhya Pradesh and Uttar Pradesh are such states, which have a higher proportion of population below the poverty line than the All-India average. In Bihar, 53.4 per cent and in Orissa 55.6 per cent of the population is poor. Whereas the total number of poor in 1987-88 was Rs. 31.28 crore, 71 per cent of them (i.e., Rs. 22.25 crore were living in seven states - Maharashtra, Uttar Pradesh, Madhya Pradesh, West Bengal, Tamil Nadu, Bihar and Orissa. (Refer table 4).

Data given in table 4 reveal that during 1973-74 and 1987-88, the proportion of population living below the poverty line declined from 54.9 per cent to 39.3 per cent. This implies that during a period of 14 years, poverty ratio declined by 15.6 per cent. Thus, there was a decline of 1.1 per cent per annum in the poverty ratio. But a careful perusal of the data reveal that the maximum rate of decline was 2.0 per cent in case of Kerala and minimum rate was observed as 0.6 per cent in Bihar.

A very encouraging feature of the situation is that in the case of Punjab, the poverty ratio fell to as low a figure as 12.7 per cent, but it is a matter of shame that even after 40 years of independence, the poverty ratio in case of Orissa and Bihar was 55.6 per cent and 53.4 per cent respectively.

Table 3 : Select Socio-economic Indicators of Different States in India

	Per Capita Income at 1980-81 prices (1991-92)	Percentage of population to total population (1991)	Percentage of urban population to total population (1991)	Average Daily Employment of factory workers per lakh of population (1985)	Net Irrigated Area as % of net sown area (1990-91)	Consumption of electricity per capita Kwh. (1992-93)
1. Goa	4800	23.4	41	NA	15	663
2. Punjab	3869	12.7	30	1400	93	863
3. Haryana	3455	16.6	2.5	1630	73	673
4. Maharashtra	3381	40.1	39	1750	11	524
5. Arunachal Pradesh	3012	37.5	12	NA	21	128
6. Gujarat	2412	32.3	34	1890	27	622
7. Tamil Nadu	2322	45.1	34	1400	43	431
8. Karnataka	2255	38.1	31	1340	20	357
9. Himachal Pradesh	2074	15.5	9	NA	17	296
10. West Bengal	2015	44.0	27	1510	36	165
11. Manipur	2002	32.9	28	NA	46	140
12. Meghalaya	1906	34.6	19	NA	23	159
13. Nagaland	1900	34.9	17	NA	31	100
14. Assam	1887	36.8	11	400	21	91
15. Kerala	1826	32.1	26	1080	15	255
16. Andhra Pradesh	1788	27.2	27	910	39	365
17. Rajasthan	1733	34.6	24	520	24	320
18. Tripura	1689	36.8	15	NA	15	84
19. Jammu & Kashmir	1687	23.2	24	NA	41	380
20. Madhya Pradesh	1621	43.4	23	750	22	312
21. Uttar Pradesh	1589	42.0	20	470	61	209
22. Orissa	1512	55.6	13	400	31	226
23. Bihar	1091	53.4	13	600	44	61
24. Mizoram	NA	32.5	46	NA	12	126
25. Sikkim	3369*	34.7	9	NA	17	—
All-India	2229	39.3	26	1050	33	330

* For 1990-91.

Source : CMIE, *Statistics Relating to the Indian Economy, Vol. II (1994), Draft Mid-Term Appraisal of the Eight Five Year Plan (1992-97), Report of the Expert Group on Estimation of Proportion and Number of Poor (1993).*

Indicators of Modernisation

There are three principal indicators pertaining to the modernisation of a country or region - the proportion of urban population, average daily employment of factory workers per lakh of population and per capita consumption of electricity. A careful analysis of these figures reveals that the degree of urbanisation in 1991 was 26 per cent of total population in India, but this shows wide variations at the state level. On the one extreme, Himachal Pradesh, Andhra Pradesh, Assam, Tripura, Orissa, Sikkim and Bihar have urban population below 15 per cent of the total population. On the other hand, the states, which have a degree of urbanisation above 30 per cent, are Punjab, Maharashtra, Gujarat, Tamil Nadu, Karnataka and Mizoram. (Refer to

Per Capita Consumption of Electricity

An important indicator of industrialisation is per capita consumption of electricity. There are wide variations among states in this regard. The per capita consumption of electricity in Bihar is 61 kwh, while that in Punjab is 863 kwh. This implies a ratio of 1:14. While the national average is 330 kwh, but in West Bengal, this figure is 165 kwh, just half of the national average. The other states in which electricity consumption is miserably poor are Arunachal Pradesh, Manipur, Nagaland, Assam, Tripura and Mizoram. The very low level of per capita consumption of electric energy in the North Eastern Sector is an indicator of its backwardness. (Refer to table 3)

Average Daily Employment of Factory Workers

Similarly, average daily employment of factory workers per lakh of population can also be treated as an index of industrialisation of the state. From this point of view, the all India average is 1,050. As against it, those states, which have been able to create more factory employment, are: Gujarat, Haryana, Maharashtra, Tamil Nadu, Karnataka, West Bengal and Kerala. On the basis of this criterion, the most backward states are Orissa, Assam, Rajasthan and Uttar Pradesh. They are followed by Bihar, Madhya Pradesh and Andhra Pradesh. (Refer to table 3)

Table 4 : Number and Percentage of Poor - arranged in ascending order on the basis of 1987-88 Poverty Ratio

	Number of poor in lakhs		Poverty Ratio (% of population)		% Reduction in Poverty	
	1973-74	1987-88	1973-74	1987-88	14 yrs	Annual
1. Punjab	40.4	24.6	28.08	12.70	15.38	1.1
2. Himachal Pradesh	9.7	7.6	26.40	15.46	10.94	0.8
3. Haryana	38.2	25.9	35.24	16.63	18.60	1.3
4. Jammu & Kashmir	21.4	16.4	42.59	23.20	19.39	1.4
5. Goa	4.1	2.7	44.04	23.42	20.62	1.5
6. Andhra Pradesh	227.5	167.8	49.25	27.20	22.05	1.6
7. Kerala	135.3	92.2	59.71	32.08	27.63	2.0
8. Gujarat	135.7	128.6	47.21	32.33	14.88	1.1
9. Mizoram	1.8	2.0	50.33	32.52	17.81	1.3
10. Manipur	5.9	5.5	50.01	32.93	17.08	1.2
11. Meghalaya	5.5	5.5	50.25	34.60	15.65	1.1
12. Rajasthan	129.0	141.2	46.33	34.60	11.73	0.8
13. Sikkim	1.2	1.4	50.91	34.67	16.24	1.2
14. Nagaland	2.9	3.4	50.87	34.85	16.02	1.1
15. Tripura	8.5	9.0	51.03	36.84	14.19	1.0
16. Assam	81.9	85.4	51.23	36.84	14.39	1.0
17. Arunachal Pradesh	2.7	2.8	51.96	37.47	14.49	1.0
18. Karnataka	170.3	162.4	54.34	38.14	16.20	1.2

19. Maharashtra	285.8	294.2	52.94	40.10	12.84	0.9
20. Uttar Pradesh	538.9	537.0	56.98	41.99	14.99	1.1
21. Madhya Pradesh	276.8	265.9	61.90	43.40	18.50	1.3
22. West Bengal	299.1	276.7	63.39	43.99	19.40	1.4
23. Tamil Nadu	246.4	243.2	56.51	45.13	11.38	0.8
24. Bihar	369.8	439.8	61.78	53.37	8.41	0.6
25. Orissa	154.6	168.0	66.24	55.61	0.63	0.7

Source: Compiled and Computed from Planning Commission, Report of the Expert Group on Estimation of Proportion and Number of Poor (1993).

3.12 ISSUE OF ENVIRONMENTAL DEGRADATION

The process of growth has thrown up another important challenge for the planners and the policy-makers. As the growth process moves further not only to help meet the basic requirements of fast-rising population but also to raise the average standard of living of the masses the rate of utilisation of natural resources accelerates.

An excessive use of natural resources, leads to an ecological imbalance. As a result not only does the efficiency of various resources get adversely affected, but there also emerge various negative externalities like pollution of air, water, sound etc. These costs have to be borne by the society at large.

The growing realisation of environmental degradation has pushed this issue to the top of the agenda of policy-makers, economists, sociologists, politicians and scientists of all hues and colours. Ways and means are being found to save the environment from further decay and achieve what has come to be called "sustainable development". (For further details see Block-3. Unit-12)

Check Your Progress 4

- 1) List five indicators of regional imbalance in India. Which of these are directly related to the industrialisation of the economy ?

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3.13 LET US SUM UP

The problem of poverty has been with us for quite long now. As a result of planned economic development incidence of poverty has declined during the last five decades. But it has not been possible to find a lasting solution to this problem. The problem of poverty, as a matter of fact, is a manifestation of a slow rate of economic growth, creation of inadequate employment opportunities, and growing disparities in income distribution. The process of growth has also thrown up other challenges like rising prices, low productivity, BoP constraints inadequate infrastructure and regional imbalance. Answers to these problems and issues have to be found and economic policies formulated accordingly.

3.14 KEY WORDS

Balance of Payments: A systematic record of account expressed in money terms of all the economic transactions of a country with the rest-of-the-world in a given period i.e. normally a year.

Demographic Investment: That part of investment, which is undertaken to meet the needs of the additional population, estimates at current levels of living.

Inflation: A sustained increase in the general price level over long period of time.

Infrastructure: All those supporting structures that help direct production activities like agriculture, industry etc.

Line of poverty: A level of income that enables an individual buy just about the bare means of subsistence.

Marginal holdings: A unit of cultivation with land area of less than 1 hectare.

Small Holdings: A unit of cultivation with land area between and 1 and 2.5 hectares.

Structural Changes in the Economy: These refer to a change in the relative roles of different production sectors in the economy.

Trickle down: A process whereby the income generated among the top income groups in the society percolates down among the poor.

3.15 SOME USEFUL BOOKS

Government of India (1999). *Ninth Five Year Plan 1997-2000*, Planning Commission, New Delhi.

Government of India (2000). *Economic Survey 1999-2000 (annual)*, Department of Economic Affairs, Ministry of Finance, New Delhi.

Dhingra, I.C.(2000). *Indian Economic Environment*, Sultan Chand & Sons, New Delhi.

Jalan Bimal (1996). *Indian Economic Policy*, Viking, New Delhi.

Joshi Vijay & IMD Little (1996). *Indian Economic Reforms, 1991-2001*. Oxford, University Press, New Delhi.

3.16 ANSWERS/HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) See Sub-Section 3.2.1
- 2) See Sub-Section 3.2.3
- 3) See Sub-Section 3.2.4

Check Your Progress 2

- 1) See Section 3.3
- 2) See Section 3.3

Check Your Progress 3

- 1) See Section 3.4
- 2) See Section 3.4
- 3) See Section 3.4
- 4) See Section 3.5, last para.
- 5) See Section 3.9

Check Your Progress 4

- 1) See Section 3.11

UNIT 4 INFLATION IN INDIA

Structure

- 4.0 Objectives
- 4.1 Introduction
- 4.2 Measurement of Inflation in India
- 4.3 Price Trends in India
 - 4.3.1 Phase of 1951-66
 - 4.3.2 Phase of 1966-90
 - 4.3.3 Phase of 1990 onwards
- 4.4 Causes of Inflation in India
 - 4.4.1 Factors on the Demand Side
 - 4.4.2 Factors on the Supply Side
- 4.5 Consequences of Inflation in India
- 4.6 Remedies
 - 4.6.1 Monetary Policy
 - 4.6.2 Fiscal Policy
 - 4.6.3 Production and Distribution Policy
 - 4.6.4 Administered Price Policy
 - 4.6.5 Commercial Policy
 - 4.6.6 Income Policy
- 4.7 A Note on New Wholesale Price Index (WPI) Series
- 4.8 Let Us Sum Up
- 4.9 Key Words
- 4.10 Some Useful Books
- 4.11 Answers/Hints to Check Your Progress Exercises

4.0 OBJECTIVES

The unit introduces you to the trends in the general price level in India since the beginning of the First Five Year Plan in 1951. After going through this unit you will be able to :

- Explain the course of inflation in the Indian economy
- Identify the causes of inflationary trends in the Indian economy
- Understand the consequences of inflation on the development prices
- Frame out a policy that can work to bring inflation under control.

4.1 INTRODUCTION

A major objective of economic planning in India has been to promote economic growth in an environment of price stability. Price stability implies an absence of erratic and unplanned movements in the general price level, inflationary or deflationary. A moderate inflation is generally believed to be a necessary condition of economic growth. Moreover, a planned inflation of any degree may not be a reason for concern as the respective plans also provide for the necessary correctives.

However, when the rate of inflation jumps the planned levels it has serious consequences. It may distort the entire frame of the plan. It is therefore not unwarranted to symbolise inflation with a state of crisis. India has been passing through this phase almost for over four decades now. It would be pertinent to diagnose this disease and prescribe suitable measures to correct it.

4.2 MEASUREMENT OF INFLATION IN INDIA

Inflation in India is measured with the help of the wholesale price index (WPI). The WPI is compiled by the Government of India, on a weekly basis. The WPI is a composite index of 447 commodities; these commodities are divided in three groups, viz., (i) primary articles, (ii) fuel group, and (iii) manufactured products. Primary articles have a weightage of 32.3 per cent while fuel group and manufactured products have 10.7 per cent and 57.0 per cent weights respectively. Currently, the WPI is estimated on the base year prices of 1993-94.

4.3 PRICE TRENDS IN INDIA

Each plan documents in India has sought to ensure that there is no accentuation of inflationary pressures in the course of the plan and that the levels of living of the more vulnerable classes in society are safeguarded. However, even as overall price stability has been an avowed objective of economic planning, the goal has eluded us almost persistently, as would be clear from a review below.

The whole period 1951-99 can conveniently be broken into three phases, viz., (i) 1951-66, (ii) 1966-1990, and (iii) 1990 onwards.

4.3.1 Phase of 1951-66

Inflation, although moderate had its beginning in India with the onset of the heavy investment programme during the mid-fifties.

The WPI, which had gone down by about 22 per cent during the First Plan, went up by about 30 per cent during the five years of the Second Plan. The WPI went up by another 35 per cent during the Third Plan period.

The rising trend of the WPI during this period could be attributed both to inflationary financing of the developmental programmes and shortfall in output, specially of agricultural products. Diversion of resources from development to defence in wake of external aggressions in sixties also contributed to the build-up of the inflationary pressures.

4.3.2 Phase of 1966-90

During this period, price variations cut across the plan periods and had shown considerable volatility. In all, seven sub-phases of price movements can be observed during the period 1966-90.

High rates of inflation were witnessed during the years 1966-67 (13.9 per cent) and 1967-68 (11.6 per cent) followed by four years of declining or gently rising price levels up to 1971-72.

A sudden spurt in the general price level was noticed in 1972-73 to 1974-75 (25.2 per cent). This was followed by a distinct phase of four years (1975-76 to 1978-79) experiencing relative price stability. In 1979-80, again prices shot up by 17.1 per cent and then by 18.2 per cent in 1980-81. The rate of increase though still high, decelerated to 9.3 per cent in 1981-82.

Thereafter, for the years, from 1982-83 to 1986-87, price increases were moderate,

The foregoing review brings out an interesting aspect of the nature of inflation in India. The periods of high inflation are soon followed by periods of relative price stability. This seems to be the logical consequence of India's economic structure and fairly sensitive policy responses by the authorities to specific disturbances which give rise to macro economic and sectoral imbalances.

4.3.3 Phase of 1990 onwards

Inflation has shown a dogged persistence in the post reforms period. In 1990-91, the year of macro economic chaos, there was a 12.1 per cent rise in the WPI. In the following fiscal year, there was a two-step devaluation of the rupee, which stipulated expectations; WPI went up by 13.6 per cent during the year 1991-92. In 1992-93 where there was a 6.9 per cent rise in foodgrains output and a 3.9 per cent rise in overall agricultural production, the inflation rate did come down to 7 per cent. During the two subsequent years, the inflation rate averaged 10.6 per cent.

As mentioned above the WPI has three parts- primary articles (weightage of 32.29 per cent), fuel group (weightage of 10.66 per cent) and manufactured articles (weightage of 57.04 per cent). Primary articles - meaning unprocessed crops of food items and fibres plus livestock - are vulnerable to the vagaries of nature. The fuel group comprises mineral oils, electricity and coal. Inflation in this segment always tends to be high. In fact, in six of the last 10 years, inflation rate in the fuel group has averaged more than 10 per cent. However, over the last two years it has dropped. In '98-99, inflation rate averaged 4.3 per cent and in '99-00, it hovered at 8 per cent.

The largest contributor to the low inflation rate, as measured by the WPI, has been the 'manufactured products' group, where prices rose just 0.4 per cent, during 1999-2000 compared to 4.6 per cent in '98-99. This represents a dramatic drop in inflation rate. Manufactured products are also the area that is most significant among the three components of inflation. There are two reasons for this - the high weightage and the fact that this group is vulnerable to structural changes in the economy. That is, the group is more influenced by policy than the primary articles group. What is driving low inflation in the manufactured product items? As such, drawing generalised conclusions is hazardous. If inflation rate in this group is low it's because of certain definitive factors - low input prices, producers' effort to boost demand or even competitive pressures.

The last factor is the most important because it has long term implications about the behaviour of inflation. Evidence suggests that competitive pressures, both internal and external, could have played an important role in keeping manufacturing inflation low. If so, manufacturing inflation is not likely to rise in a hurry in the near future.

Overall, the Indian manufacturing sector is under more competitive pressures, both domestic and external. Categories contributing about 35 per cent of the WPI could be exposed to international competition. And, if one includes domestic competition in sectors like cement, consumer durables and automobiles too, the pricing power of a substantial part of the manufacturing basket could be affected by competitive pressures. Which direction will inflation take in the future? It is not possible to make an accurate forecast for the primary goods category because this section is unpredictable. In four of the last 10 years, inflation in this category exceeded 10 per cent and only in the last two years has it stabilised at less than 5 per cent. So, if one goes by the law of probabilities, inflation in this category is likely to rise.

Prices in the fuels category tend to rise religiously, and so inflation could hover at 8-10 per cent. That leaves the manufacturing sector, the big bogey. A large part of this section is now aligned with global cycles. Therefore, while demand revival should create conditions for manufacturing inflation to rise, it is likely that it may remain at 4-5 per cent levels in 2000-2001, where it has been for the last four years. Overall, therefore, the WPI should stay at 5-6 per cent for the next year. This will be a low for India.

The mid-nineties have witnessed a slowing down the rate of inflation. Although, the WPI has continued to move upwards, the rate of increase has been moderate, 7.7 per cent in 1995-96, 6.4 per cent in 1996-97, 4.8 per cent in 1997-98 and 6.9 per cent in 1998-99.

It would be seen from the above review that India entered the age of rising prices in the mid-fifties. The price level has since been continuously rising. What has differed, however, is the rate at which prices have gone up at different stages. While during the fifties and the sixties, inflation used to be moderate and phases of stable prices intermingled with those of rising prices. The rate of inflation picked up fast during the mid-seventies, and accelerated further during the eighties and the first half of the nineties. The price line has been little smoother in the second half of the nineties.

Check Your Progress 1

1) Is inflation good or bad for economic growth?

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2) How do we measure inflation in India?

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3) Trace the course of inflation in India during the decade of nineties.

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4.4 CAUSES OF INFLATION IN INDIA

Inflation in India has been a mixture of both demand-pull and cost-push factors.

4.4.1 Factors on the Demand Side

Main Features of Indian Economy

- 1) ***Inflationary financing of government deficits:*** The rising expenditure of the government, ever since the beginning of the First Five-year plan, has resulted in fiscal deficits. A substantially large part of these deficits could be met by taking resort to easy and soft borrowings, both external and internal. But an equally substantial part had to be funded by printing new currency notes. The inflow of new currency, at times out of proportion with increase in output, fuelled demand for goods and services, resulting in an upward movement on the general price level.
- 2) ***Large supply to bank credit:*** The credit had been required to meet the growing needs of the production sector in the growth process. Likewise, in wake of globalisation and deepening and disintermediation of the financial system, new financial instruments outside the banking system are appearing at a fast pace. All these we add to monetary expansion in the economy .
- 3) ***Large inflow of non-debt foreign capital:*** Large inflows of foreign capital by way of factor incomes from abroad, direct and portfolio investment add to the available liquidity in the economy. This generates new demand for goods and services.
- 4) ***Black money:*** The term is used to refer to that money which is acquired after evading taxes. Black money is used to finance largely the non-productive activities like deals in real estate, gold smuggling, hoarding, luxury living etc. These types of transactions divert resources from productive uses to unproductive uses, and hence are responsible for not getting the supply of goods and services increase to their maximum.

4.4.2 Factors on the Supply Side

The important factors on the supply side are as follows:

- 1) ***Rise in administered prices.*** In our economy a large part of the market is influenced and regulated by government action. This is true both of the agricultural and industrial sector. In the agricultural sector the government regulates the market forces through such measures as minimum guaranteed support price, procurement price, etc. Similarly, the prices of a number of important basic industrial intermediates and raw materials are fixed by the governments. A large part of the inflation in India is explained by a periodical rise in the administered prices.
- 2) ***Dislocation of infrastructural facilities.*** Notwithstanding the fact that substantial efforts have gone into building up the infrastructural support to the economy and reasonable progress has been recorded a gap between demand and supply continues to exist, having dampening effects on overall production and supply of goods, resulting in higher unemployment and a lower rate of real output.
- 3) ***Rising import prices of essential commodities.*** In the increasingly globalising economy domestic price level cannot remain insulated from the international price levels whenever the import prices go up. These leave an inflationary impact on domestic cost and price structure.
- 4) ***Faulty and ineffective management.*** The private entrepreneurs in their zeal for higher profits have never shirked from indulging in such practices as hoarding,

only interfere with the free operation of the market forces. These only lead to the creation of artificial scarcities, from which nobody gains except the private entrepreneurs. The working of the public distribution system, wherever it operates has also been marked by inefficient and corrupt administration.

Check Your Progress 2

1) Inflation in India is a joint result of demand and supply forces. Comment

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2) Mention three factors on demand side that are responsible for inflation in India.

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3) Mention three factors on supply side that are responsible for inflation in India.

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4.5 CONSEQUENCES OF INFLATION IN INDIA

The major consequences of inflation in India can be examined as follows:

One, the effects of rising prices on general consumption standard are usually serious enough on fixed income groups, including the large class of landless agricultural labourers who are remunerated in cash. The rich can always insulate themselves against inflation - through various asset deals and by buying things whose prices rise along with inflation.

Two, inflation generates demand for positional goods. The adverse fallout of this trend would be on articles of consumption of the poor strata as the middle classes in the urban and rural sectors may put greater pressure for diversion of resources towards the production and availability of the articles of their own consumption. In a resource-starved economy of India, the poor may have to tighten their belts further in a situation of rising prices.

Three for a country like India, with the large mass of the people being net debtors, a gradual rise in prices should in part alleviate the burden of debt. Given the structure of production and marketing, however, only a small proportion of the benefit of higher prices accrues to the agriculturist or artisan owing to interception by middlemen and moneylenders.

Four the extent of stimulus to output as a result of high prices is limited by

Five, inflation by distorting the relative price and wage structure has made it difficult for tax authorities to track down money incomes of the various sectors of the economy and helped in the consolidation and expansion of a parallel economy .

Six, the rising levels of non-plan expenditure by the government may also largely be due to inflation. This compels the government to resort to deficit funding by way of printing new currency. This in turn further fuels inflation.

Seven, inflation results in creation of a high-cost economy, which is sapping our competitive capacity in the world market.

Eight, inflation discourages exports and builds up measure for enlarged imports. Overall, weakening export-competitiveness, unproductive activities of business preoccupied with inflationary gains, and the growing frustration of workers confronting a widening disparity in the distribution of income and wealth, all these trends indicate that growth potential of a developing economy like India is being desirously undermined by chronic inflation.

Check Your Progress 3

- 1) Explain how inflation affects the poor section of the society.

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- 2) Explain how inflation adversely affects our competitiveness in the export markets.

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- 3) What is the effect of inflation on self-employed persons?

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4.6 REMEDIES

As we have seen above many factors contribute to inflation. Corrective measures, thus, necessarily have to have a broad sweep.

4.6.1 Monetary Policy

The basic task of monetary policy in a developing economy is to meet the credit needs of the growth sectors on the one hand, and to curb the supply of money to be used in non-productive activities like speculative dealings and hoarding, on the other. Monetary policy in India has been designed on the same principles and hence is

The Reserve Bank has been manipulating various quantitative and qualitative controls to make this policy effective. But in the circumstances prevailing presently in the economy, the monetary policy is subject to the number of limitations.

The proportion of total credit provided by non-banking institutions and agencies is much higher and the linkages between banks and these institutions are not so well developed. The impulses generated by the Reserve Bank have thus limited impact in relation to the totality of transaction that need to be effected.

Credit restraints whenever they are imposed hit most adversely the priority sectors of the economy. Given these considerations, it is almost certain that we cannot depend upon monetary policy alone to contain inflation.

4.6.2 Fiscal Policy

There is a need to curb fiscal deficits. Recent experience has shown that a reduction in fiscal deficit by axing development expenditure can lead to recession and lower revenue yields. In fact, public expenditure on development, particularly on infrastructure, will need to be raised appreciably to revive industrial activity. On the other hand, there is limited scope to slack non-development expenditure. Any saving on this count may be offset by increased requirements of funds for defence.

What is required is that either or both of the following must happen:

- a) Government sharply reduces its expenditure by reorganising itself, improving its efficiency, reducing subsidies and other infructuous expenditures; and
- b) Government is able to get much higher returns on its investments in the public enterprise system and other parts of the public sector, like railways, posts and telegraphs etc.

4.6.3 Production and Distribution Policy

No scheme worth its name can be successful if it does not aim at increased production and productivity both in the agricultural and industrial sectors of the economy.

Alongwith this there is need for a well conceived distribution policy, We have already experimented with two extreme forms of distribution system, viz., total dependence on private entrepreneurs to undertake the distribution of goods throughout the length and breadth of the country, and total nationalisation of wholesale trade in foodgrains. Our experience has been that both of these systems are fraught with dangers. We would suggest that the distribution system should be left to private enterprise, but at the same time its working should be closely monitored and supervised by the state agencies to prevent malpractices.

4.6.4 Administered Price Policy

In the context of administered price policy it is pertinent to note that the objectives of fiscal stability and price stability do not always coincide. Though the increases in administered prices by the PSUs relieve the exchequer of its obligation to provide budgetary support to them, price hike in key inputs like petroleum products have a cascading effect on the general price situation. Therefore, the price policy to be followed by the government is to be such as to break the tendency to move the administered prices upwards at regular intervals.

4.6.5 Commercial Policy

The export orientation of commercial policy and encouragement to inward inflow of foreign exchange in any forms has come to be clearly established in more recent years. This concern for exports arises largely out of balance of payments considerations. This is as it should be in the prevailing economic scenario.

But in our zeal to earn foreign exchange we cannot afford to let the price situation go out of hand. Given the present level of foreign exchange reserves the domestic supplies of at least essential goods would have to be maintained at levels that do not fuel inflationary expectations. This will require in turn (a) liberal imports of commodities, and (b) export-controls on commodities in short supply domestically.

4.6.6 Income Policy

For maintaining price stability it is important that a proper relationship between different prices, between different incomes and between price structure and income structure be evolved. Given a proper price-income structure, any rise in the income of any factor should be consistent with the rise in productivity. It is also necessary that the rise in money supply should not be more than that required for the genuine needs of the community such as the rise in the volume of transactions associated with an increase in production and increase in the monetisation of existing transactions.

Check Your Progress 4

- 1) What type of monetary policy would you recommend for price stability?
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- 2) Outline the components of fiscal policy for price stability.
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- 3) What type of administered price policy would you recommend for price stability?
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4.7 A NOTE ON NEW WHOLESALE PRICE INDEX (WPI) SERIES

The introduction of the revised series of Index numbers of wholesale prices, with 1993-94 as the base year, is expected to provide a more realistic picture of inflation. The new base year has been chosen based on the well-known criteria, the desired

properties being: (i) a normal year for level of production and trade as also for price variations; (ii) a year for which reliable price and other data are available; and (iii) a year as recent as possible.

With a view to reflecting adequately the changes that have taken place in the structure of the economy since 1981-82 (the base year of the old series), almost all the important items being transacted in the economy have been included in the revised index. The new series with 1993-94 as the base has as many as 435 items in the commodity basket. Thus, the number of items included in the new series is, in fact, smaller than the 447 items in the 1981-82 series. However, the composition of the new series has been rationalised by incorporating newly emerging and important items, deletion of unimportant ones, amalgamation of less important items with similar ones and splitting of certain items.

In all, 136 distinctly new items have been added in the revised series. Besides, a number of varieties/grades, which are merely quotations of some items in the 1981-82 series without having any weight, have been upgraded to the level of commodities in the series. Again, a few items of the earlier series have been amalgamated because of their similarity in characteristics and for making their description more purposeful. As many as 150 items figuring in the 1981-82 series have been dropped due to their insignificant contribution in terms of their relative value of production in the economy. Only 68 per cent of the items/commodities are common in the old and new series. Some of the important items that have entered the WPI commodities basket for the first time are electricity for railway traction, purified terephthalic acid (PTA), injection moulded plastic items, oxygen gas cylinder, railway sleepers (cement), thinner ms/ss ingots, cold rolled sheets, LPG cylinder, jelly filled telephone cables, colour TV sets, computer and computer based systems. Some of the dropped items are mica, imported petroleum crude, indigenous petroleum crude, khadi handloom cloth, broad gauge open wagons, and wrist watches.

The weight of 'primary articles' has significantly declined while that of 'manufactured products' has gone up considerably in the revised series. This situation has arisen as a consequence of the relatively slower growth in the agricultural sector particularly 'food articles' and 'non-food articles' in the major group, 'primary articles.' The weight of primary articles group has declined to 22.02 per cent in the new series from 32.29 in the 1981-82 series. On the other hand, the weight of 'fuel power, light & lubricants' group has gone up to 14.23 per cent from 10.66 per cent and that of 'manufactured products' group has gone up to 63.75 per cent from 57.04 per cent. The new weights are in conformity with the structural changes that have taken place in the economy since the introduction of 1981-82 series.

A comparative analysis of the general wholesale price index of the revised series and the earlier 1981-82 series shifted to 1993-94 base shows that the revised series starts off from a level higher than the old series for the year 1994-95 and thereafter, the two series are more in consonance with each other. In fact, the rate of change in the revised series after 1994-95 is slightly lower than the old series as the commodity composition of the revised series reflects better quality products sometimes a little higher in absolute price level.

The Working Group under the Chairmanship of Prof. S. R. Hashim, which finalised the composition of the new WPI series, has stressed the need for more frequent revisions in the wholesale price index because of the greater integration of our

Working Group has also suggested that a serious attempt be made to incorporate services in the index, which occupies nearly one half of income generated in the economy. It has suggested that initially the effort should begin with a restricted number relatively important service industries for which the data are available and eventually a new series of WPI combining the commodities and services may be brought out. (Source : Economy Diary by S.D. Naik , Business Line, and April 25, 2000)

4.8 LET US SUM UP

A major objective of economic planning in India has been to promote economic growth in an environment of price stability. But this goal has largely eluded us. The price level began to rise after the First Five Year Plan and has since been continuously rising. What has differed, however, is the rate at which prices have gone up at different stages. While during the fifties and the sixties, inflation used to be moderate and phases of stable prices intermingled with those of rising prices, the rate of inflation picked up fast during the mid-seventies, and accelerated further during the eighties and the early nineties. Inflation in India has been the mixture of demand-pull and cost - push factors. Therefore, a set of measures need to be taken to restore price stability in the economy.

4.9 KEY WORDS

Inflation: A sustained rise in the general price level

Cost-Push Inflation: A sustained rise in the general price level arising from an autonomous rise in costs.

Demand-pull inflation: A sustained rise in aggregated demand, which results in sustained rise in the general price level.

Real Income: The value of total output measured in 'constant prices' i.e., with the general rate of inflation deducted so as to record the real command over resources.

Administered Prices: Prices, which are established by the conscious decision of some individual or agency rather than by the impersonal play of market forces. Administered pricing is generally possible where a good is sold by a public authority.

4.10 SOME USEFUL BOOKS

Dhingra I.C. (2000). *The Indian Economy: Environment and Policy* (Chapter-10), Sultan Chand & Sons, New Delhi,

Government of India (2000). *Economic Survey; 1999-2000 (Annual)*, New Delhi

Jindal, Ajay (2000). *A caged tiger called inflation, the Economic Times*, April 18.

Naik, S.D. (2000). New WPI Series: A more realistic picture of inflation, *Business Line*, April 25.

Planning Commission (1997). *Ninth Five-Year Plan 1997-2002*, New Delhi

Reserve Bank of India (2000). *Report on Currency and Finance, 1999* Mumbai

4.11 ANSWERS / HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) See Section 4.1
- 2) See Section 4.2
- 3) See Sub-Section 4.3.3

Check Your Progress 2

- 1) See Section 4.4
- 2) See Sub-Section 4.4.1
- 3) See Sub-Section 4.4.2

Check Your Progress 3

- 1) See Section 4.5
- 2) See Section 4.5
- 3) See Section 4.5

Check Your Progress 4

- 1) See Sub-Section 4.6.1
- 2) See Sub-Section 4.6.2
- 3) See Sub-Section 4.6.4

UNIT 5 DETERMINANTS OF GROWTH AND DEVELOPMENT

Structure

- 5.0 Objectives
- 5.1 Introduction
- 5.2 Economic Growth
- 5.3 Economic Development
- 5.4 Determinants of Economic Development
 - 5.4.1 Capital Formation
 - 5.4.2 Capital-Output Ratio
 - 5.4.3 Occupational Structure
 - 5.4.4 Growth of Population
- 5.5 The Indian Experience
- 5.6 Let Us Sum Up
- 5.7 Key Words
- 5.8 Some Useful Books
- 5.9 Answers or Hints to Check Your Progress Exercises

5.0 OBJECTIVES

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

- Learn the concepts of economic growth and economic development;
- Know what is the difference between the two;
- Identify the determinants of economic development; and
- Evaluate the Indian performance in terms of growth and development.

5.1 INTRODUCTION

Rapid economic growth has been the buzzword these days. The situation in the early fifties was no different. However, from the sixties till about the mid-eighties the concept of development came into prominence. This was the time when it was increasingly being felt that majority of the population in most of the developing world did not benefit much from the growth process. Since then, however, the clock seems to have gone full circle in terms of the thrust of development strategy and the priority again is on economic growth rather than on economic development.

5.2 ECONOMIC GROWTH

In Unit 2, you were made familiar with the meaning of growth as well as development. Meaning of economic growth was also explained in that Unit. **Economic growth** occurs whenever people take resources and rearrange them in ways that are more valuable. A useful metaphor for production in an economy comes from the kitchen. To create useful final products (or dishes), we mix ingredients together according to the recipe. The cooking one can do, is limited by the supply of ingredients and by recipes available. Similarly, production of goods and services is limited by the availability of resources/materials and available technology for combining them. From here it follows that the level of production in any economy would expand (or grow) both with increase in available resources and changing technology. This *process of increase in level of production is referred to as economic growth. In brief, economic growth could be referred to as growth in national output (or income) or per capita national income in a period of time, say a year.*

5.3 ECONOMIC DEVELOPMENT

Economic development, in contrast to economic growth, is a wider concept. It is a complex term. To give it a precise definition is not easy. **Development**, as we know, is defined as economic development plus social change. Social change consists of better living standards for people, equitable distribution of income and wealth, productive employment facilities for all, adequate facilities for health and sanitation, education for everyone etc. These are reflected in social indicators like life expectancy at birth, literacy rate, birth rate and death rate per 1,000 population, hospitals per 100,000 population, schools per 100,000 population, share of labour force employed in agriculture sector etc.

Attempts to define development have led to some general definitions. Many of them differ from one another, particularly in respect of substance and the index of development. *The key element of development is that people are the major participants in the process of change in the economy as well as in the enjoyment of benefits flowing from these changes. This process of change in the economy is what is referred to as economic development. These factors enhance growth of the economy though in an indirect way. The enjoyment of benefits by all could be referred to as development.*

Basically, economic development implies the process of securing higher and higher levels of production in all sectors of the economy and this, in turn, is a function of the level of technology. For obtaining a higher level of technology, the economy is required to forge the physical apparatus in the form of machines, equipment, tools and instruments of production on the one hand (*i.e. physical capital formation*) and on the other, to train labour force of the country by providing better education, sanitation and health facilities to the population of the country (*i.e. human capital formation*) to make use of the physical apparatus thus created. In nutshell, economic development is a process of stepping up the rate of capital formation in an economy, human as well as non-human, to enhance the standard of living of its population. *The process of economic development can be seen as a process of expanding the capabilities of people as well as their access to opportunities.*

Indices of economic development attach more importance to the quality of life and give a composite yardstick based on changes in the following three indicators: life expectancy, infant mortality, and literacy. A brief discussion of each one, and an assessment of the three, should help us in understanding these issues. The next Unit discusses various indicators of social change in detail, which gives us some idea about quantifying social change. On the basis of these measures the performance of an economy could be evaluated over time as well as across countries.

Check Your Progress 1

1) Define economic growth? (Answer in three lines)

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2) What is economic development? (Answer in three lines)

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3) What is the difference between economic growth and economic development?
(Answer in five lines)

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5.4 THE DETERMINANTS OF ECONOMIC DEVELOPMENT

Economic growth is an essential part of the process of economic development. Providing a continuously rising level of living to population of a country crucially depends on the growth of income. The factors, which are important determinants of economic growth, are also referred to as economic factors.

The rate of growth of national income in an economy depends upon the rate of investment and the capital-output ratio:

$$\begin{aligned} \text{i.e., Rate of Growth of National Income} &= \frac{\text{Investment - Income Ratio (I/Y)}}{\text{Capital - Output Ratio (K/Y)}} \\ &= (I/Y) \cdot (Y/K) \end{aligned}$$

Where I = investment;

Y = National income or output;

K = National Stock of Capital;

In other words, to achieve faster rate of growth of national output, economy has to operate on two variables, viz.,

- a) to step up the rate of investment (*i.e. investment-income ratio*). Other things being the same a higher rate of investment (or capital formation) would ensure higher rate of growth of national income. Higher the resources out of its income (or resources) an economy is able to put aside for investment the higher would be the growth of income in future; and
- b) to generate forces which reduce the capital-output ratio (COR) through more efficient utilisation of capital resources. Higher efficiency reduces the capital-output ratio and the economy is able to produce a higher level of output with lower doses of capital;

5.4.1 Capital Formation

Capital refers to the stock of machines, tools and equipment (which produce consumer goods as well as machines) and improvements in skill formation of its work force, which has enhancing effect on the process of growth. Any additions to this stock in a time period are called Capital Formation. Investment is also another name given to this concept.

Capital formation is of crucial importance in the process of economic growth and development. It is necessary to step up the rate of capital formation so that the community accumulates a large capital stock of machines, tools and equipment, which can be geared into production. Not only that, capital formation requires the creation of skill formation so that the machines and equipment created can be utilized efficiently to achieve a rising level of production.

"The level of production and the material well-being a community can attain depends, in the main, on the stock of capital at its disposal, i.e. on the amount of land per capita and of productive equipment in the shape of machinery, buildings, tools and implements, factories, locomotives, engines, irrigation facilities, power installations and communications. The larger the stock of capital, the greater tends to be the productivity of labour and, therefore, the volume of commodities and services that can be turned out with same effort." (Planning Commission "First Five Year Plan" p 13.)

Experience of other countries suggests that a high rate of capital formation was achieved to trigger rapid economic growth. In Japan, investment rate between 1913 and 1939 averaged 16 to 20 percent. The First Five Year Plan of the erstwhile Soviet Union had a target of net investment amounting "between a quarter and a third of national income" though in the subsequent plans the rate of investment was lowered and stabilised at about 20 percent of national income. In some of the East European countries like former Czechoslovakia and Poland, gross investment rates ranged between 20 and 25 percent. In view of the experience of other countries, which experienced a faster growth, it is essential for India also to step up the rate of investment to 20-25 percent.

5.4.2 Capital-Output Ratio

Another determinant of economic development is the capital-output ratio. The term 'capital-output ratio' refers to the number of units of capital that are required in order to produce one unit of output. In other words, capital-output ratio reflects the productivity of capital in the various sectors of the economy at a point of time. Also in a developing country like India where there is a shortage of capital, it becomes all the more important to conserve its use by utilizing it efficiently. The capital-output ratio for the economy as a whole is only a shorthand description of the productivity of capital.

The capital-output ratio is different for different industries and across different economies and it varies over a period of time.

"There is no unique capital-output ratio applicable to all countries at all times. Much depends on the stage of economic development reached but also on the precise form of further expansion." (First Five-Year Plan).

For instance in the early phase of economic development, when a country is making heavy investment in economic infrastructure, i.e. on building irrigation works, hydro-electric projects, roads, railways, etc. the corresponding additions to output will be small. The problem of these industries is referred to as *the problem of indivisibilities*. This means that the size of the plant has to be of a specific size even if the need (or demand) for it to start with, is only a small fraction of the total size. Constructing a smaller plant is either costlier or not possible. But with passage of time as the power potential and transport equipment are utilized to the full, there shall be a favourable shift in the capital-output ratio.

On the other hand, basic industries like iron and steel, machine tools, engineering and metallurgy are more capital-intensive than consumer goods industries. Consequently, in the initial years of development when the economic foundations are being laid, capital-output ratio tends to be unfavourable. But as development gathers momentum, and the emphasis is shifted to the production of consumer goods, relatively smaller increases in investment bring about large increments to output. In other words, *the stage of economic development and the mix of various types of investment determine the capital-output ratio.*

Besides, in certain sectors (e.g. agriculture, small-scale industries etc.) of the economy output can be increased with comparatively small additions to capital (these are also called the *labour-intensive* industries or sectors), while in other sectors, comparatively large additions to capital are called for. For instance, in Japan, between 1885 and 1915, labour productivity in agriculture was doubled by a comparatively small quantum of investment in the form of better seeds, improvements in water supply, control of crop diseases and use of fertilizers.

In addition to this, capital-output ratio depends upon the efficiency with which the new types of capital equipment are handled and *the quality of managerial and organisational skill* available at a particular stage of economic development. Co-ordination of the programme of investment so as to develop complementary economic activity simultaneously has a favourable effect on capital-output ratio. In other words, *the capacity of the economy to more effectively use the investment at a particular time also affects the capital-output ratio.*

5.4.3 Occupational Structure

Another factor, which determines and is determined in due course by economic development is the occupational structure of the working population. Experience from all over the world suggests that in the process of development, transfer of work force from primary to secondary and then secondary to tertiary sector of the economy has invariably taken place. For instance between 1870 and 1930, the proportion of work force engaged in agriculture declined from 54 to 23 percent in U.S.A., from 43 to 25 percent in France, and from 80 to 48 percent in Japan. The process of shift in the occupational structure implies the shift of work force from low productivity primary sector to high productivity secondary and tertiary sectors. Therefore, it is essential that as economic development proceeds there is an optimum distribution of the work force in different occupations. This will not only improve the utilisation of labour but will also boost the overall level of productivity of the economy.

5.4.4 Growth of Population

Rapid growth of population is considered to be an important hindrance to rapid economic growth. This happens due to the fact that faster growth of population means less resources per capita. Since economic growth is measured in terms of an increase in per capita income, a part of the increase in national income is utilised to maintain the additional population. In other words, in terms of per capita income, on account of a rise in population, the country is left with small potential of spreading of the benefits of growth across its population. This highlights the need for a large and active programme of family planning so that the benefits of the massive developmental efforts do not get dissipated.

But it may be emphasized that it would not be proper to isolate the population factor because history has shown that birth rate only falls significantly when the standard of living rises significantly for the majority of the population. Hence economic development and population are interconnected. Whereas population hinders economic development, the latter as it gathers momentum, leads to the creation of more appropriate conditions to control population.

Check Your Progress 2

- 1) What factors affect the capital-output ratio and how? Discuss any three factors? Answer in 100 words.

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.....

2) Mark the correct among the following:

As the economy develops the work force (or the occupational structure) moves in favour of:

- a) primary sector
 - b) secondary sector
 - c) tertiary sector
 - d) secondary and tertiary sectors
 - e) primary and secondary sectors
- 3) Which of following is a better indicator of standard of living ?
- a) National income
 - b) Capital formation
 - c) Capital-output ratio
 - d) Expectations of life at birth
 - e) None of the above
- 4) Indicate which of the following statement is "TRUE" or "FALSE".
- a) Higher investment rate is not good for the faster growth of an economy. TRUE/FALSE
 - b) Increase in population is good for faster growth of per capita income. TRUE/FALSE
 - c) Growth in national income is the best indicator of economic development. TRUE/FALSE
 - d) Per capita income is calculated by dividing the National Income by Population. TRUE/FALSE

5.5 THE INDIAN EXPERIENCE

In this section we will discuss and evaluate the Indian performance so far as growth and development are concerned. One of the important targets of India's development has been to accelerate the growth in national income. Besides the growth in national income, we are also interested to examine the trend in per capita income. Let us first study the trend in India's national income since the fifties. We use the estimates of Net National Product (NNP) at factor cost. The following table depicts this:

Table 1: Trends in National Income (NNP at factor cost)
(at Current and Constant Prices)

Year	AT CURRENT PRICES	(Rs. Crore) at constant prices (1980-81 prices)
1950-51	8574	40454
1960-61	14242	58602
1970-71	36503	82211
1980-81	110685	110685
1990-91	418074	186446
1995-96	857570	267330
1999-2000	1590301	1011224*
2000-2001	1765238	1063479*

Source: National Accounts Statistics, Central Statistical Organization, 1997, Revised Revised Estimates of Gross National Income, 2000-01, National Accounts statistics, CSO
Note : * at 1993-94 prices.

From the above table it can be seen that national income (at current prices) has increased from Rs. 8574 Crore to Rs. 857570 Crore i.e., an increase of 100 times over a forty five year period and then to 1765238 crores in 2000-2001. However, the increase was not that pronounced during the First Five Year Plan period (1950-51 to 1955-56). Subsequently, substantial increases have been noticed over the successive Five Year Plans.

The increase in national income at current prices, however, does not really depict a true picture of the economic growth of the nation, because a substantial part of this increase may be the result of the rise in the prices of goods and services in the economy. In order to have a better idea of economic growth we need to consider the above at constant prices (i.e. keeping prices fixed and then looking at by how much has the income in real terms increased), which is also given, in the above table. From the above table we can infer that the increase in real national income is much less than nominal national income. While the former increased about six times, the latter increased more than 100 times during 1950-51 to 1995-96. The much greater increase in nominal income is due to the inflation (or rise in prices) over this period.

**Table 2: Trends in Per Capita National Income (NNP at Factor Cost)
(at Current and Constant Prices)**

Year	At current prices (Rs.)	At constant prices (Rs.) (at 1980-81 prices)
1950-51	238	1126
1960-61	328	1350
1970-71	674	1519
1980-81	1630	1630
1990-91	4983	2222
1995-96	9321	2573
1999-2000	16047	10204*
2000-2001	17530	1056*

Source: Same as in Table 1

Note : * at 1993-94 prices

The above table depicts the per capita income series both at current and constant prices. Just as real income series is used to eliminate the effect of price increase from the nominal income to give a true picture of the changes in total production, so also per capita income series is designed to eliminate the impact of population increase. Increase in per capita income at constant prices also indicates potential increase in the standard of living, if the total population is distributed equitably over different income slabs. Though at current prices per capita net national product increased about 38 times during the forty five year period, at constant prices it showed an increase of only 2.3 times. The much greater increase in nominal per capita income is due to the rise in prices over this period.

The pattern of growth of national income over the different five-year periods also differs when we consider real, rather than nominal income. This highlights the erratic growth in a planned economy in the fifty years of Independence (Graph 3).

The following table demonstrates this feature:

Table 3: Annual Compound Growth Rate of NNP in India (at Constant (1980-81) Prices)

Plan	NNP (percentage)	Per Capita (percentage)
First Plan (1951-56)	3.6	1.7
Second Plan (1956-61)	4.0	1.9
Third Plan (1961-66)	2.4	0.1
Three Annual Plans (1966-69)	3.7	1.4
Fourth Plan (1969-74)	3.3	0.9
Fifth Plan (1974-79)	5.0	2.6
Annual Plan (1979-80)	-6.0	-8.2
Sixth Plan (1980-85)	5.4	3.2
Seventh Plan (1985-90)	5.9	3.6
Annual Plan (1990-91)	5.1	3.0
Annual Plan (1991-92)	-0.1	-2.1
Annual Plan (1992-93)	5.1	3.1
Annual Plan (1993-94)	5.9	4.1
Annual Plan (1994-95)	6.8	4.9
Annual Plan (1995-96)	6.9	5.1
Annual Plan (1999-2000)	6.6*	4.8*
Annual Plan (2000-2001)	5.2*	3.5*

Source: Same as in Table 1
 Note : * at 1993 - 94 prices

As is clear from the above table, the growth has fluctuated a lot over the last 50 years. Seventh Plan achieved the highest growth (of NNP as well as per capita NNP). Till Fourth Plan growth has been well below 5 percent but since the Fifth Plan onwards the growth has accelerated.

Table 4: The Gross Capital Formation in the Indian Economy

Year	Investment Rate (%)	ICOR	GDP growth
1951/2-55/6	10.66	2.95	3.61
1956/7-60/1	14.52	3.40	4.27
1960/1-65/6	15.45	5.44	2.84
1966/7-70/1	15.99	3.43	4.66
1971/2-75/6	17.87	5.80	3.08
1976/7-80/1	21.47	6.63	3.24
1981/2-85/6	20.98	4.15	5.06
1986/7-89/90	22.70	3.91	5.81
1986/7-91/2	23.17	4.36	5.31
1991/2-1996/7	24.9	3.7	6.8
1999-2000	28.2	4.3	6.5

where Investment Rate = (I/Y) , GDP growth = growth rate of Y (or gross domestic product)

ICOR = $((K/Y)$ = Incremental Capital-Output ratio

Source: Eighth Plan Document: 1992-97 and Ninth Plan Document: 1997-2002

It is clear from the Table 4 that the capital formation (i.e. the investment rate) in the Indian economy has been rising continuously since Independence. It was around 10 percent in 1951/2-1955/6 and has risen to over 23 percent in 1986/7-91/2 period and then to 28 percent during 1997-2000, an increase of about 18 percent. This has been a remarkable achievement. However, the growth of the economy has not shown the corresponding rise in growth of income.

The above table shows incremental capital output ratio rather than capital-output ratio because of two reasons: i) it is very difficult to measure capital and ii) the incremental capital (or investment) is what matters for immediate increase in growth of national income. In the economic analysis also, therefore, the stress is on ICOR rather than on COR. The reason for this has been mainly the fluctuations in the incremental capital-output ratio(ICOR) over this period. This reflects the fluctuation in the level of efficiency in the use of capital stock in the economy.

From the above discussion it is clear that the growth in national income or even in the per capita income does not throw light on the development process. Ultimately the process of economic development has to be concerned with living standards of people i.e. whether they live longer, escape morbidity, be well nourished, be able to read and write and communicate with each other, take part in scientific pursuits, and so forth. The process of economic development can be seen as a process of expanding the capabilities of people and their access to opportunities along with an improvement in their quality of life.

With the above in mind, we focus on some social (or development) indicators. The following Table depicts some basic indicators of Human Development:

Table 5: Basic Indicators of Human Development

Year	Expectation of Life at Birth (years)	Literacy Rate (%)	Birth Rate (per	Death Rate (thousand)	Infant Mortality Rate
1951	32.1	18.3	39.9	27.4	146
1961	41.3	28.3	41.7	22.8	146
1971	45.6	34.5	36.9	14.9	129
1981	50.4	43.6	33.9	12.5	110
1991	59.4	52.2	29.5	9.8	80

Source: Government of India, Economic Survey 1996-97, Ministry of Finance.

As can be seen from the above table, there has been significant improvement in almost all indicators of economic development. For instance, life expectancy at birth in last 45 years period rose from 32.1 to 59.4 years, literacy rate has almost tripled from 18.3 percent to 52.2 percent over the same period, birth rate and death rate came down. Death rate has fallen at a faster pace than birth rate resulting in rapid growth of population. Infant mortality rate has also come down significantly in this period (146 to 80).

In India, in 1991 the occupational structure absorbed 65 percent of the work force in the agriculture (or primary) sector, about 15 percent in industry (or secondary) and rest (20 per cent) in the services (or tertiary) sector indicating that agriculture is still the main employer of the work force in the economy. The secondary and tertiary sector of the economy are supporting relatively a much smaller proportion of the labour force and that there is an unduly high proportion of population drawing its livelihood from agriculture. This is against the background that the share of agriculture

in the GDP has declined from more than 50 percent at the time of independence to around 33 percent in 1991.

The experience of the Indian economy in terms of occupational structure has been very depressing. This, obviously, means that the per capita income in agriculture sector in India is much lower compared to the rest of the population depending on industrial and services sector. On average income of the population in non-agriculture sector was around 2.3 times that of the ones depending on agriculture sector. This difference has risen to more than 4 times in the last fifty years of Independence. This indicates the urgent need to raise the level of productivity of agriculture sector as well as absorption of larger proportion of the work force in non-agriculture sector for faster growth and development of the Indian economy.

Check Your Progress 3

1) What has been the Indian experience of growth and development since Independence? Discuss in about 100 words and point-wise.

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2) Fill in the blanks:

- a) Share of agriculture in GNP has dropped from 50 percent in 1950 to about _____ percent in 1991.
- b) Capital formation is also known as _____.
- c) Faster growth in national income at current prices is due to _____.

3) The literacy rate in India has increased to

- a) 99.1 percent
- b) 52.4 percent
- c) 45.7 percent
- d) 23.5 percent
- e) None of the above

4) The expectation of life at birth in India has increased to

- a) 99.1 years
- b) 23.5 years
- c) 45.7 years
- d) 59.4 years
- e) None of the above

5) The infant mortality rate has fallen to

- a) 80
- b) 90
- c) 150
- d) 108
- e) None of the above

- 6) The proportion of the work force in India dependent on Agriculture sector is
- one-third
 - two-third
 - one-half
 - three-fourth
- 7) The national income at current prices is higher than that of national income at constant prices, because of:
- population growth
 - inflation (or rise in prices)
 - slowing down of growth rate
 - deflation (fall in prices)
- 8) The growth of national income is higher than that of per capita national income, because of
- positive population growth
 - inflation (or rise in prices)
 - slowing down of growth rate
 - negative growth of population
- 9) Rate of capital formation has risen to
- 12 percent
 - 15 percent
 - 19 percent
 - 23 percent
 - 35 percent

5.6 LET US SUM UP

Objective of this Unit was to familiarise the reader with the concept of economic growth and economic development and with the difference between the concept of economic growth and economic development. Many a time people use these two concepts interchangeably which is not appropriate. The concept of economic development is much wider than the concept of economic growth.

Later part of the Unit looked at the Indian performance in terms of growth and development in the period since Independence.

In short, it is quite possible that mere emphasis on gross national product or growth approach to development may result in increase of national income by the manipulation of capital-output ratio but in the process, the economy may be faced with the problem of massive unemployment. It is, therefore, of vital importance that the pattern of investment should be so designed that certain areas such as defence equipment, engineering and metallurgical industries, heavy industries, railways, shipping etc may be permitted to use sophisticated capital-intensive technology but bulk of the consumer goods industries and various programmes of agricultural development should emphasise on labour-absorbing technologies with lower doses of capital. Such a course is vitally necessary in the early phases of development in which population pressure is heavy on account of a fast decline in the death rate, The harmonisation of the objective of expanding production with that of securing full employment is a logical necessity in developing economies like that of India.

Over the last fifty years since independence, Indian economy has made only limited progress towards self-sustained economic growth. After five decades of effort, a substantial number of Indians, which can be counted in millions, remain desperately poor and can look forward to more abject poverty. A complete re-orientation of development policy is required to benefit the bottom half of the population from the growth process.

5.7 KEY WORDS

Economic Growth : Economic growth refers to a rise in national or per capita income (or product).

Economic Development : The process of improving the quality of life.

Income per capita : Total national income of a country divided by total population.

Morbidity : death or deathlike position.

National income : Total money value of all final goods and services produced in an economy during a year.

Primary sector : Consists of agriculture and allied activities like forestry, fishing etc.

Secondary sector : consists of industries of all types, manufacturing and construction related activities, also referred to as industrial sector.

Tertiary sector : services related activities fall in the purview of this sector. These include banking, transport, insurance, administration, trade etc.

Vicious circle: A self-reinforcing situation in which factors tend to perpetuate a certain undesirable phenomenon

5.8 SOME USEFUL BOOKS

Central Statistical Organisation (1997 and 2001). "*National Accounts Statistics*" Department of Statistics, Ministry of Planning, Government of India, New Delhi.

Eswaran, Mukesh & Kotwal, Ashok (1994). "*Why Poverty Persists in India*", Oxford University Press, New Delhi, Chapter 1 p 1-25.

Kapila, U.(1996). "*Indian Economy since Independence*", 7th Edition, Academic Foundation, Delhi, Chapters 1-3 p 25-45.

Meier, G.M.(1994). "*Leading Issues in Economic Development*", Oxford University Press, Oxford, Fourth Edition, chapters 1,2,3.

Todaro, Michael P.(1994). "*Economic Development*", Longman Group UK Limited, New York, Chapters. 1,3,4, Fifth Edition.

World Bank(1991). "*World Development Report - Challenge of Development*" Oxford University Press, New York.

5.9 ANSWERS OR HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) Economic growth refers to rise in national income or per capita income. For the details see Section 5.2

- 2) Economic development is the process of economic growth and social change. For details of concept of economic growth and economic development go through section 5.3 carefully.
- 3) See Section 5.2 and 5.3

Check Your Progress 2

- 1) a) indivisibilities; b) capital-intensity; c) labour-intensity; d) quality of managerial and organisational skills; and e) complementary economic activities (Section 5.4.3 for details).

These factors affect ICOR in different ways some positively and some negatively. This is discussed in Section 5.4.3 elaborately

- 2) d).
- 3) d)
- 4) a) False; b) False; c) False; d) True;

Check Your Progress 3

- 1) For this answer you should go through the Section 5.5 and 5.6 and study all the tables and discussions about them in the Unit thoroughly. Discussion should be based on performance in terms of growth of national income and per capita income, capital formation, investment rate and the social indicators.
- 2) a) 33 b) investment c) inflation (or price rise)
- 3) b) 4) d) 5) a) 6) b) 7) b) 8) a) 9) d).

UNIT 6 SOCIAL INDICATORS OF DEVELOPMENT

Structure

- 6.1 Objectives
- 6.2 Introduction
- 6.3 Types of Social Indicators
 - 6.3.1 The Physical Quality of Life Index (PQLI)
 - 6.3.2 The Human Development Index (HDI)
 - 6.3.3 The Capability Poverty Measure (CPM)
- 6.4 Key Words
- 6.5 Some Useful Books
- 6.6 Answers or Hints to Check Your Progress Exercises

6.1 OBJECTIVES

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

- Identify the various indicators of social development;
- Explain their historical origins and purpose for their development; and
- Attempt a comparative study of the experiences of India's vis-a-vis some other developing countries' of Africa and Asia over time.

6.2 INTRODUCTION

Being students of economics, we would like to know how to assess the economic performance of a country. Here, one of the first indicators that comes to mind is the growth rate of the country. Rapid growth somehow seems to suggest that the people of that country would benefit through improvement in the standards of living. Historical experience does not establish that this relationship holds invariably and automatically. Rapid growth implies an increase in average per capita income. There is, however, no automatic mechanism by which the actual incomes of everyone in the economy increase. In other words, there could be problems of possible increase in inequality in new distribution of income, for instance, which prevents the translation of economic growth into general improvements in the standard of living of the people. Therefore, in order to assess the performance of any country, one needs to go beyond the performance in terms of growth rates.

One of the broad concepts that evolved so as to capture changes in the economy beyond economic growth is that of 'development'. While this is a very broad concept, the key element of economic development is that people of the country being major participants in the process of changes in the economy as well as in the enjoyment of benefits flowing from the changes. For instance, Indian economy has made rapid strides in the area of industrial development in the past few decades. The production of steel ingots has increased from less than 1.5 million tons to more than 15.5 million tons between 1950-51 and 1995-96. During the same period the production of machine tools, cotton textile machinery, cotton cloth, sugar, tea, vanaspati have all shown a sharp increase. At the same time it is also known that nearly 36 per cent of the population in 1993-94 lived below even the minimum norm of income called poverty line. The benefits of economic growth thus seem to have bypassed a significant proportion of the population. In order to evaluate a country's development performance, therefore, one can use measures of the extent to which people in the country receive the benefits of the development process.

The first step in this direction is to look at indicators of poverty and inequality. These, in a sense, seek to measure/capture the access of people to the basic necessities of life, from the purchasing power side. An alternative approach is to look at the country's performance in terms of various social indicators - the main indicators usually relate to health and education sectors. The idea here is to measure the actual access to these services. Indicators such as Physical Quality of Life Index (PQLI) and Human Development Index (HDI) fall in this category.

The above characterisation of the process of development provides an alternative way of assessing the development performance. This is derived from the first part of the characterisation, which is people being the major participants in the process of change. For this to be realised, they should have minimum "capability". This is the basis for the third approach - which takes the form of Capability Poverty Index (first introduced in Human Development Report, 1996). Capability is sought to be captured in terms of three major indicators - avoidable morbidity, education, and health in the form of nourishment. The indicators here differ from the ones used in the earlier indices in that the former measure availability of or access to the service, while the latter seek to capture the proportion of the population that is actually deprived of these services. In this sense this index is an alternative way of measuring poverty, a fact that is amply captured in its name.

This unit presents a discussion of these various indicators of human development, and comparative picture of how India performs on these indicators, when compared to other developing economies.

6.3 TYPES OF SOCIAL INDICATORS

To begin with, it would be useful to get familiar with the problems associated with using per capita GNP as a measure of development. The inability of this indicator to capture the problems arising from inequality in distribution of income is not the only drawback. One of the major criticisms arises from the fact that the figures for GNP do not include non-marketed and/or non-priced activities. This includes, among other things, a significant part of the homemakers' work. This has two implications: first and more obvious implication is that this would result in the underestimation of the level of GNP. Over time, however, the activities, which were formerly not marketed, enter the market. To give an example, consider nursing. Attending to the sick was at one time an activity of the household itself. But today, this service is a part of the market. Not only does one pay for the service in hospitals and nursing homes, one can even obtain the service for an invalid at home. Such changes imply that comparison of the levels of per capita GNP over time could yield misleading information on the underlying standards of living. This problem also implies that using per capita GNP for inter-country comparisons too could be misleading if the countries have differences in the extent of marketed services and goods.

As a result, there have been numerous efforts both to remedy these defects in the use of per capita GNP as a measure of the level of development, and to create other composite indicators that could serve as compliments or alternatives to this traditional measure. Basically, such indicators fall into two groups: those that seek to measure development in terms of a "normal" or "optimal" pattern of interaction among social, economic, and political factors and those that measure development in terms of quality of life. In all of these studies, the approach has been to assess the performance of the country in some key sectors : sectors, which are considered an integral part of any analysis of standards of living. Two of the key sectors used are education and health.

One of the early studies on the first group of composite indicators was carried out by the United Nations Research Institute on Social Development (UNRISD) in 1970. The study was concerned with the selection of the most appropriate indicators of development and an analysis of the relationship between these indicators at different levels of development. The result was the construction of a composite social development index. Originally 73 indicators were examined. However, only 16 indicators (9 social indicators and 7 economic indicators) were ultimately chosen (see Table 1).

Table 1: List of Core Indicators of Socioeconomic Development United Nations Research Institute on Social Development (UNRISD)

Expectations of Life at Birth
Percentage of Population in localities of 20,000 and over
Consumption of animal protein, per capita, per day
Combined primary and secondary enrolment
Vocational enrolment ratio
Average number of persons per room
Newspaper circulation per 1,000 population
Percentage of economically active population with electricity, gas, water etc.
Agricultural production per male agricultural worker
Percentage of adult male labour in agriculture
Electricity consumption, kilowatt per capita
Steel consumption, kg per capita
Energy consumption, kg of coal equivalent per capita
Percentage GDP derived from manufacturing
Foreign trade per capita, in 1960 U.S. dollars
Percentage of salaried and wage earners to total economically active population

These indicators were selected on the basis of their high inter-correlation to form a development index using weights derived from the various degrees of correlation. The development index was found to correlate more highly with individual social and economic indicators than per capita GNP correlated with the same indicators. Rankings of some countries under the development index differed from per capita GNP rankings. It was also found that the development index was more highly correlated with per capita GNP for developed countries than for the developing countries. The study concluded that social development occurred at a more rapid pace than economic development up to a level of \$500 per capita income (1960 prices).

Another study that sought to measure development in terms of a pattern of interaction among social, economic, and political factor was conducted by Irma Adelman and Cynthia Morris, who classified 74 countries according to 40 different variables relating to these aspects. Factor analysis was used to examine the interdependence between social and political variables and the level of economic development to arrive at a measuring yardstick. The researchers found numerous correlations between key variables and economic development.

This approach of factor analysis is based on an underlying normative assumption that there is a unique path of development. The performance of the developing countries is, therefore, sought to be judged in terms of the path traced by the developed countries. There seems to be no logical or historical justification for this assumption. Furthermore, there is usually an emphasis on measuring inputs, such as the number of doctors or hospital beds per 1000 population or enrolment rates in primary schools to measure health and education, when outputs, such as life expectancy and literacy, are the actual objectives of development. This would not be a fallacy if the underlying "production function" transforms all 'inputs' into 'outputs'. But this is rarely the

case. The figures of number of doctors per 100 population, for instance, would normally be concealing the differences in the levels between rural and urban areas, or between backward and advanced pockets of the same country. In response to these criticisms, several studies have sought to develop composite indicators that measure development in terms of meeting the basic needs of the majority of the population or in terms of quality of life.

Check Your Progress 1

- 1) Why is per capita GNP an inadequate measure of standards of living, i.e., of welfare of the people of a country? (Answer in five sentences)

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6.3.1 The Physical Quality of Life Index (PQLI)

One well-known endeavour in this area was Morris D. Morris's development of the *Physical Quality of Life Index (PQLI)*. Three indicators were used to form a simple composite index:

- 1) Life expectancy at age 1;
- 2) Infant mortality rate; and
- 3) Literacy rate.

For each indicator, the performance for individual countries is rated on a scale of 1 and 100, where 1 represents the worst performance by any country and 100 the best performance. For life expectancy, the upper limit of 100 was assigned to 77 years (achieved by Sweden in 1973) and the lower limit of 1 was assigned to 28 years (the life expectancy of Guinea-Bissau in 1950). Within these limits, each country's life expectancy figure is ranked from 1 to 100. For example, a life expectancy of 52, midway between the upper and lower limits of 77 and 28, would be assigned a rating of 50. Similarly for infant mortality, the upper limit was set at 9 per 1,000 (achieved by Sweden in 1973) and the lower limit at 229 per 1,000 (Gabon, 1950). Literacy rates, measured as percentages from 1 to 100, provide their own direct scale. Once a country's performance in life expectancy, infant mortality, and literacy has been rated on the scale of 1 to 100, the composite index for the country is calculated by averaging the three ratings, giving equal weights to each.

Although the study found that countries with low per capita GNP tended to have low PQLIs and countries with high per capita GNP tended to have high PQLIs, the correlations between GNP and PQLI were not substantially close. Some countries with high per capita GNP had very low PQLIs - even below the average of the poorest countries. Other countries with very low per capita GNP had PQLIs that were higher than the average for the upper-middle-income countries.

Table 2: Per capita GNP and PQLI (1981)

Country	Per Capita GNP (\$)	PQLI
Gambia	348	20
Angola	790	21
Sudan	380	34
Tanzania	299	58
Zimbabwe	815	63
China	304	75
Pakistan	349	40
India	253	42
Sri Lanka	302	82
Singapore	5220	86
Taiwan	2503	87
Saudi Arabia	12720	40
Iraq	3020	48
Brazil	2214	72

Source : Todaro, M.P.(1994): Economic Development, 5th Edition.

Table 2 provides a sample of the Third World countries ranked both by per capita incomes and PQLIs in the early 1980s. The data seem to indicate that significant improvements in the basic quality of life can be achieved before there is any great rise in the per capita GNP or, conversely, that a higher level of per capita GNP is not a guarantee of a better quality of life. Note in particular the wide PQLI variations for countries with similar levels of per capita income such as Angola and Zimbabwe, China and India, Tanzania and Gambia, Taiwan and Iraq. Most striking contrast is that between Saudi Arabia and Sri Lanka.

Check Your Progress 2

- 1) What are the three indicators used to form a composite index for PQLI?
 a) _____; b) _____; and c) _____

- 2) Best performance of a country is represented with a score of
 a) 100; b) 10; c) 1; d) 20.

- 3) The GNP and PQLI are highly correlated for all the countries. Is it TRUE or FALSE ?

- 4) Discuss in about five sentences the experience of high GNP countries and low GNP countries with regard to PQLI.

6.3.2 The Human Development Index (HDI)

The latest and most ambitious attempt to analyse the comparative status of socioeconomic development in both developing and developed nations systematically and comprehensively undertaken by the United Nations Development Program (UNDP) in its annual series of Human Development Reports. The centre-piece of these reports, which were initiated in 1990, is the construction and refinement of a Human Development Index (HDI). Like the PQLI, the HDI attempts to rank all countries on a scale of 0 (the lowest human development) to 1 (highest human development) based on three goals or end products of development.

- 1) *longevity* is measured by life expectancy at birth;
- 2) *knowledge* as measured by a weighted average of adult literacy (two-thirds) and mean years of schooling (one-third weights); and
- 3) *income* as measured by adjusted real per capita income (i.e. adjusted for the differing purchasing power of each country's currency and for the assumption of rapidly diminishing marginal utility of income).

Using these three measures of development and applying a complex formula to 1990 data for 160 countries, the HDI ranks all countries into three groups: low human development (0.00 to 0.49), medium human development (0.50 to 0.79) and high human development (0.80 to 1.00). It should be noted that HDI measures relative, and not absolute, levels of human development and that its focus is on the ends of development (longevity, knowledge, material choice) rather than the means (as with per capita GNP alone). Further, while PQLI focuses only on the physical indicators of health and education, HDI assigns a role to income as well, by including adjusted real per capita income as one of the indicators. In this sense, HDI could be considered a refinement of PQLI as well as of per capita GNP as indicators of development.

Table-3: Comparison of HDI and CPR with the real per capita GDP (1993)

	Real GDP (PPPS) Per Capita	HDI	CRM
USA	24680	0.940	
Sweden	17900	0.933	
Japan	20660	0.938	
South Korea	9710	0.886	8.6
Sri Lanka	3030	0.698	19.3
Pakistan	2160	0.442	60.8
India	1240	0.436	61.5
Bangladesh	1290	0.365	76.5
China	2330	0.609	17.5
UK	17230	0.924	
Germany	18840	0.920	
Brazil	5500	0.796	10.0
Tanzania	630	0.364	39.4
Iraq	3413	0.599	39.9
Algeria	5570	0.746	49.5
Kuwait	21630	0.836	10.8

Source: Human Development Report, 1996.

Table 3 shows that the Human Development Index, along with the figures for real per capita GDP (PPP\$) for a sample of developed and developing nations. A comparison of these two figures is done by a comparison of the ranks of the countries by these two measures - by taking the difference. A positive number shows by how much a country's relative ranking rises when HDI is used instead of GDP per capita, and a negative number shows the opposite. Clearly, this is the critical issue for HDI as well as any other composite social indicator such as the PQLI. If country rankings did not vary much when HDI is used instead of GDP or GNP per capita, the latter would (as some economists claim) serve as a reliable proxy for socio-economic development, and there would be no need to worry about such things as health and education indicators.

We see from Table 3 that there is no direct correspondence between the ranking by the HDI measure and that by the per capita real GDP (PPP\$). It is interesting to note that even though countries with high HDI tend to have higher adjusted real per capita GDP. Within and occasionally across the three subgroups we find some countries whose HDI is considerably higher than others even though the latter have substantially lower per capita incomes. Thus, for example, we see that Tanzania's HDI is slightly higher than Guinea's (0.364 and 0.306 respectively) even though Guinea's real per capita GNP is almost 3-times higher than Tanzania's. There are many other such cases, which make it clear that complete stress on GNP growth may not be enough to solve the problem of poverty or deprivation in the under-developed countries.

Although the HDI gives us a broader perspective on progress towards development, it should be pointed out that

- 1) its creation was in part motivated by a political strategy designed to focus attention on health and education aspects of development;
- 2) the three indicators used are good but not ideal (e.g. the U.N. team wanted to use nutrition status of children under age 5 as their ideal health indicators, but the data were not available;
- 3) the national HDI may have the unfortunate effect of shifting focus away from the substantial inequality within countries;
- 4) the alternative approach of looking at GNP per capita rankings and then supplementing this with other social indicators is still a respectable one; and
- 5) one must always remember that the index is one of relative rather than absolute development, so that if all countries improve at the weighted rate, the poorest countries will not get credit for their progress.

6.3.3 The Capability Poverty Measure (CPM)

Turning to the capability side of the story, with the help from Amartya Sen, "Human Development Report (1996)" has invented a multi-dimensional measurement, calling it an index of Capability Poverty Index. The objective behind construction of this index is to focus on deprivation rather than on availability. Participation of the people in the development process would be conditional on their capability, captured in terms of the health and educational status: basic here being survival, and access to education and various public and private resources. The index, it is believed, represents a truer picture of those who are so deprived that they no longer have the chance or choice to improve their lives.

The report measures human poverty in terms of deprivations:

- a) *deprivations of life* (nearly one-third of the people in the least-developed countries are not expected to survive to 40);

- b) *deprivation of basic education* (particularly of girls); and
- c) *deprivation of access to public and private resources*, including safe water.

The corresponding indicators are percentage of children under five who are underweight, percentage of women over the age of 15 years who are illiterate and percentage of births unattended by trained health personnel. *The CPM therefore focuses on people's lack of capabilities in the country rather than on the average capabilities in the country.*

While this constitutes the basis for the construction of this new index, it also alters the focus of recommendations for governmental intervention in these sectors. The goals of governmental intervention get suitably modified. In terms of per capita GNP (U.S. dollars) India is still one of the poorest countries of the world, even many of the poorer African countries have done better in their performance. Table 2 clearly shows that countries like Sri Lanka, Pakistan, Iraq, Gambia, Angola, Tanzania, Zimbabwe, even Sudan have a higher per capita GNP than India. But in terms of PQLI, Pakistan, Gambia, Angola, Sudan have a much lower ranking than India. So, it is vividly clear *that Indian experience has been mixed in achieving growth as well as improvements in the standards of living of its population.*

The figures for CPM for the less developed countries too are presented in *Table 3*. It should be noted that the performance of the countries as per the CPM does not correspond directly with the ranking according to HDI.

Looking more closely at Table 3, it can be noticed that South Korea and Kuwait have more or less same HDI (0.886 and 0.836 respectively) but the per capita GNP of South Korea is only about 40 percent of that of Kuwait. This indicates that *higher level of per capita income is necessary but not sufficient condition for better human development.* The case is similar for the pair of China and Iraq. Both have more or less equal HDI but China's per capita income is about 35 percent lower than Iraq's. Further, whatever be the measure that is being considered, the Table 3 also indicates that India has a long way to go to achieve rapid growth and betterment of quality of life of its population in comparison to most other countries of the globe.

Check Your Progress 3

- 1) What is the difference between the indices developed by UNRISD on the one hand and HDI or PQLI on the other? Briefly describe these indices.

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- 2) What is the significance of the Capability Poverty Index? How does it differ from HDI or PQLI? (Answer in four lines)

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- 3) Consider HDI and PQLI and discuss what is the difference in the policy implications in the use of these two development indicators? (Answer in five lines)

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4) How would the policy implications of indices based on UNRISD differ from those based on HDI/PQLI?

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6.4 KEY WORDS

Human Development Index: An index measuring national socio-economic development, based on measures of life expectancy at birth, educational attainment, and adjusted real per capita income.

Income per capita: National income of a country divided by total population.

Infant mortality rate: Deaths among children between birth and 1 year of age per 1,000 live births.

Levels of living: The extent to which a person, family, or a group of people can satisfy their material and spiritual wants. If they are able to afford only a minimum quantity of food, shelter, and clothing, their levels of living are said to be very low. If they enjoy a great variety of food, shelter, clothing, and other things, such as good health, education, and leisure, they are enjoying relatively high levels of living.

Literacy: Ability to read and write.

Literacy rate: The percentage of population aged 15 and above that are able to read and write.

Malnutrition: A state of ill health resulting from an inadequate or improper diet, usually measured in terms of average daily protein consumption.

National income: Total money value of all final goods and services produced in an economy during a period of time, usually a year.

Physical Quality of Life (Index (PQLI): A composite social indicator reflecting the average of three indices: life expectancy at birth, literacy rate, and infant mortality rate.

Social indicators: Non economic factors of development, such as life expectancy at birth, literacy rate, infant mortality rate, and doctors per 1,000 population.

Vicious circle: A self-reinforcing situation in which factors tend to perpetuate a certain undesirable phenomenon.

Factor analysis: refers to the analysis in which weights is given to various variables (or indicators) according to the importance accorded to it.

6.5 SOME USEFUL BOOKS

EPW Research Foundation (1994). "*Social indicators of Development - II*", *Economic & Political Weekly*, May 21, pp 1300-1308.

Eswaran, Mukesh & Kotwal, Ashok (1994). "*Why Poverty Persists in India*", Oxford University Press, New Delhi, Chapter 1 pp 1-25.

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6.6 ANSWERS OR HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) Refer to Section 6.3 to answer this question.

Check Your Progress 2

- 1) a) Life expectancy at age 1; b) Infant mortality; and c) Literacy.
- 2) a) 100
- 3) FALSE.
- 4) Read Section 6.4.1 for the experience of developed and developing countries with regard to the correlation between GNP and PQLI.

Check Your Progress 3

- 1) The former are based on a normative assumption of a unique path of development, while the latter make no such assumption. Both these kinds of indices seek to focus on the extent to which benefits of development accrue to the people. For details of these indices look up section 6.3.
- 2) Section 6.4 may be referred to for answering this question.
- 3) Since the basic difference between these two indicators is the inclusion of per capita income in HDI and its exclusion in PQLI, emphasis on HDI would suggest the need for income redistribution, while this would not figure in PQLI based analysis.
- 4) The former would advocate increases in the inputs to the basic services like doctors per 100 population, while the latter would focus on achieving goals such as increase in life expectancy at birth. The latter therefore, is more likely to explore the reasons for failure of the availability of the service to translate itself into final 'outputs' like life expectancy and address the underlying problems.

UNIT 7 PLANNING IN INDIA

Structure

- 7.0 Objectives
- 7.1 Introduction
- 7.2 Role of Planning in Economic Development
- 7.3 India on the Eve of Independence
- 7.4 Evolution of Planning in India
 - 7.4.1 Brief History of Planning
 - 7.4.2 Role of State as Visualised in the Planning Process
 - 7.4.3 Planning in Independent India
 - 7.4.4 Plans, Planning Models and their Priorities
- 7.5 Planning Experience in India
- 7.6 Achievements and Failures of Planning in India
 - 7.6.1 Achievements of Planning
 - 7.6.2 Failures of Planning
- 7.7 Changing Perspective of Planning
- 7.8 Let Us Sum Up
- 7.9 Key Words
- 7.10 Some Useful Books
- 7.11 Answers or Hints to Check Your Progress Exercises

7.0 OBJECTIVES

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

- Understand the importance of planning;
- Appreciate its need;
- Explain the limitations of planning;
- Describe achievements and failures of Indian Planning; and
- Analyse the changing perspective on planning.

7.1 INTRODUCTION

The debate between planning and the market mechanism is age-old. This Unit addresses this debate. The conflict is superficial in nature. There are plenty of ways in which the two can be combined to achieve the desired goals of social and economic development. The latter part of the Unit discusses the Indian experience of planning in the post-independence period. The limitations of the planning by direction in the light of Indian experience are discussed in the last part of the Unit.

7.2 ROLE OF PLANNING IN ECONOMIC DEVELOPMENT

A free and unimpeded market system is expected to lead to maximising the national product. This maximum is also optimum from the point of view of efficiency if certain conditions are satisfied in the functioning of an economy. These are as follows:

- 1) *Poverty and inequalities in income distribution of all kinds are tolerated:* The market system tends to create inequalities of income and wealth. It also does not provide equal opportunities to all, especially to poorer sections in an unequal

society. In the real world, therefore, there are some constraints sought to be placed on inequalities in the distribution of income and wealth.

- 2) *There are no public goods.* That is there are no goods and services produced for the community as a whole and all are only for the market. However, in real world, there are always some goods and services which do not meet these criteria. These include national defence, roads, bridges, prevention of pollution etc. If left to the market these products are unlikely to be provided for.
- 3) *There are no externalities associated in the process of production.* In other words, there are some costs and benefits in provision of certain goods and services, which cannot be taken into account by the market system. These are goods and services like primary education, basic health facilities, drinking water and sanitation etc. These services involve large positive externalities. Similarly, costs of certain harmful drugs (involving negative externalities), though profitable, are unlikely to be accounted for by a market system. So, the market system cannot be relied upon to provide for these; and
- 4) *Production is not subject to increasing returns to scale.* These are those industries in which the cost of producing a good or service keeps falling as the production is expanded due to the economies of scale of production. These industries include telecommunications, power distribution, broadcasting, railways, waterways, irrigation projects etc. Therefore, if these are left to the market then they may be provided in very small quantities or may not be provided at all as losses would be incurred in producing these goods or services at the point of efficient level of operation.

Similarly, in most developing countries, increase in food production required to stave off hunger and famines may be much more than what the farmers may desire to produce at the prevailing market prices. So we see that the possibilities of such distortions, which the market system may create, indicate that the system may not always deliver the optimum result.

This raises the need for rational, deliberate, consistent and coordinated economic policy, which is what is referred to as **Planning**. The aim of planning is to assure maximum national income through time by *optimising* the composition of national income with minimising the distributional inequalities.

The means employed may be either **indirect** (through **monetary, fiscal and commercial** policy) also sometimes referred to as indicative planning or **direct** (through public investment). In the indirect approach, government strives to achieve objectives of planning through changes in its policies and regulatory framework in economic activity. France is the best example of this. In India also Government has used this approach successfully in steering agricultural development in the desired direction. Direct approach, on the other hand, is based on direct state intervention in economic activity. This is done through state-owned public sector enterprises to achieve the desired goals of planning. This approach has been extensively used for the rapid development of the industrial sector in India.

Check Your Progress 1

- 1) What, in your view, are the three important limitations of market system?

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2) Discuss in brief the difference between direct and indirect approach to planning?

3) Why is planning important for the developing economies?

7.3 INDIA ON THE EVE OF INDEPENDENCE

What did India look like at the time of Independence in 1947? It was poor, obviously, but more strikingly, almost completely stagnant. The average expectation of life was a mere 33 years. India also experienced a gigantic famine in 1943, shortly before Independence; this took a toll of nearly 30 lakh people. However, this devastating famine was not directly related to the decline in the amount of food availability since it took place at a time when there was a comparatively good aggregate food crop.

Indian economy at the time of independence was overwhelmingly rural in character with nearly 85 percent of the population living in villages and deriving their livelihood from agricultural and related pursuits using traditional, low productivity techniques. The backwardness of Indian economy gets reflected in its unbalanced occupational structure with 75 percent of working population engaged in agriculture. Even with this large proportion of population engaged in agriculture, the country was not self-sufficient in food and raw materials for industry. The average availability of food was not only deficient in quantity and quality but also precarious as exhibited by recurrent famines. Illiteracy was as high as 84 percent; majority of children (60 percent) in the age group 6-11 did not attend school. Mass communicable diseases were rampant and in the absence of a good public health system, mortality rates were high (27 per thousand). Thus, the economy was faced with the problem of mass poverty, ignorance and disease, which were aggravated by the unequal distribution of resources between groups and regions.

7.4 EVOLUTION OF PLANNING IN INDIA

Policy makers in India initiated the process of planning in order to attain certain objectives within a time frame. These were particularly aiming at:

- i) to speedily raise the levels of living;
- ii) to catch-up with the living standards of the industrially advanced countries;
- iii) to produce product-mix which could sustain growth over a longer period of time; and
- iv) reducing the extent of the existing inequalities and levels of poverty in the country.

To achieve these objectives, acceleration in the rate of growth in the economy was emphasised because in a rapidly growing economy it becomes easier to tackle various problems.

The role of state in the process of planning as a tool for accelerating growth and structural break was well accepted even before independence.

7.4.1 Brief History of Planning

I) *The National Planning Committee*

Jawaharlal Nehru was the architect of planning in India. Under his Chairmanship the *National Planning Committee (NPC)* was set up towards the end of 1938. The Committee considered all aspects of planning and produced a series of studies on different subjects concerned with economic development. The Committee laid down following recommendations:

- i) the state should own or control all key industries and services, mineral resources, railways, waterways, shipping and other public utilities and all those large-scale industries, which were likely to become monopolistic in character;
- ii) agriculture is crucial to draw up a scheme of national planning;
- iii) the planning should aim at doubling the standard of living of the people in 10 years.

II) *The Gandhian Plan*

Mahatma Gandhi was not a professional economist and did not develop a formal model of economic growth. But he advocated certain policies with regard to the development of Indian *agriculture, small-scale industries* etc. A Gandhian Plan incorporating these policies was prepared by Shriman Narayan and Acharya S.N. Agarwala in 1944. This model forms the basis of Gandhian planning, sometimes also referred to as '*the Gandhian model of development*'.

Besides the NPC eight industrialists conceived "A Plan of Economic Development" which was popularly known as *the Bombay Plan*. The famous revolutionary M.N. Roy also formulated a plan generally referred to as the *People's Plan*.

All these plans were of historical importance as there was no opportunity to implement them. Therefore, they remained on paper only. However, all these plans do indicate broad consensus about the importance of the role of state in the development process of the Indian economy.

7.4.2 Role of State as Visualised in the Planning Process

In the early 1950s it was believed that the state could play a significant role in a developing economy both in raising the domestic rate of savings and in putting it to more productive use. Indian economy was predominantly rural in character. It had land tenure system in which a substantial part of the surplus over subsistence needs of the cultivators and farm labourers got appropriated by a small class of non-cultivating land owners and intermediaries (especially under zamindari system and other feudal forms of tenure) and used for non-essential consumption. Abolition of such exploitative and socially wasteful land tenure systems could release surplus for productive investment through *land reforms* (*Land reforms* also refers to redistribution of land from the big farmers to the landless agricultural labourers). This increases land productivity as well as improves the economic conditions of rural poor as they are mainly landless labourers. Land reforms combined with taxation of agriculture are means of exploiting this potential. Both require strong State intervention.

The state has to take the primary responsibility for providing elementary education, basic health care, safe drinking water and other facilities. These are the basic needs in any civilised society and in the Indian economy all these things were at very low level as discussed above. These also have substantial beneficial effects on the general level of productivity. Direct state intervention is necessary and justified due to the strong positive *external economies* (or externalities) associated with these basic services for the community as a whole (point 3 in Section 7.2).

Projects such as road networks, major irrigation works, steel plants, railways etc. call for investments on a scale far beyond the capacity of individual investors. They are in the nature of natural monopolies (also known as the public utilities) and form a category where direct involvement of the State is deemed justifiable (point 2, Section 7.2). In most cases even if the private sector is allowed to operate, the need for effective mechanism to define and enforce standards, norms of efficiency, “fair” rate of return on investment and the like is universally accepted. All of this call for state regulation, though not necessarily direct ownership and operation.

The government can also help development by creating conditions, which induce people to invest more. Low rates of savings are a reflection of low levels of income. A relatively stagnant, slow growing economy implies that profitable opportunities for investments are limited. State intervention can help expand such opportunities in several ways by creating environment conducive for faster growth. *State did this job very effectively in the Indian economy till about mid-sixties but in the later period it got into whole lot of economic activities and at the cost of ignoring its essential roles like education, health and sanitation etc.*

Public mobilisation of idle or underemployed labour for creating productive assets especially roads, irrigation canals, land improvement, schools, rural hospitals etc. increase the potential productivity of private resources and thereby creating profitable private investment opportunities. Under certain conditions, increased public expenditure can enlarge the scope for profitable investment by creating additional demand for goods and services. Both these effects are likely to be considerably strengthened if there is a coordinated programme of investments for ‘balanced development’ ensuring that supplies of key inputs and services grow in step with the demand for them. This aspect is particularly important in the case of activities, which are closely inter-related. With a coordinated programme, the risks of shortages or excesses of particular goods or services will substantially reduce. Reduced risks induce business to invest more.

Check Your Progress 2

1) What is the role of state in the planning process? Give two examples.

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7.4.3 Planning in Independent India

The Planning process formally started in India after the attainment of Independence when Government of India set up the Planning Commission in March, 1950. The responsibility for overall planning was vested with the Planning Commission. The Commission’s mandate was quite wide:

- a) to assess the country’s need of material capital and human resources and to formulate plan for their more balanced and effective utilisation;

- b) to review all important programmes and projects before they are approved for implementation;
- c) to determine the pool of resources to be devoted to development and the allocation of this pool between various uses and users; and
- d) the monitoring and evaluation of their progress.

Though formally an advisory body, it was expected that the Commission would be consulted on all major matters of development policy. Its composition was such that expert professional opinion could be brought to bear on all important matters and at the same time ensure that its counsel will carry sufficient weight in the councils of Government.

Successive Five Year Plans have sought to concretise the development strategy, programme and priorities to realise the general vision of 'growth with social justice' within the framework of a democratic polity and mixed economy. The shape and content of successive plans show a certain evolutionary process reflecting changing ideas and perceptions on the potentials and constraints on development, the relative emphasis on different objectives, and the compulsions of political and economic exigencies at various points in time.

The basic objectives and issues of economic development in India have been **growth, modernisation of the economy, self-reliance and social justice (mainly reduction in economic inequalities and removal of poverty).**

7.4.4 Plans, Planning Models and their priorities

The launching of the First Five Year Plan in April 1951 initiated a process of development aimed not merely at raising the standards of living of the people but also opening out to them new opportunities for a richer and more varied life. This was sought to be achieved by planning for growth and social justice.

The First Five Year Plan contains one of the clearest early formulations of the need for planning and of the state's role in it. Planning, it pointed out, involves "acceptance of a clearly defined set of objectives in terms of which to frame overall policies..., formulation of a strategy for promoting the realisation of the ends defined..., and working out a rational solution to problems - an attempt to coordinate means and ends". According to A. Vaidyanathan (1995), three features of this formulation are noteworthy:

- 1) It viewed planning as a means of utilising available resources more effectively to initiate the development process;
- 2) It emphasised that elimination of poverty cannot be achieved exclusively through redistribution of existing wealth or through raising output. "Purposive intervention would be required to channel economic activity within the existing social and economic order and so remodel the framework as to accommodate progressively the fundamental urges reflected in the demand for right to work, education and adequate income, protection of the aged, the sick and the disabled and ensuring that society's natural resources are used to sub serve the common good" and do not result in concentration of wealth and power in the hands of a few; and
- 3) It recognised that planners are not omniscient; that there are vast gaps in our knowledge of facts and that considerable amount of judgement is inevitable in making policy. The implication is that one has to keep learning from experience.

The First Five Year Plan commenced with the financial year 1950-51. It was followed by a series of Five Year Plans.

Planning process in India has had strong theoretical foundations. All the Five Year Plans have been based on different planning models. The First Plan (1951-56) was based on **Harrod-Domar growth model**. The result of this model can be set up in a simple equation:

$$I \times (1/\alpha) = I \times \sigma$$

where I represents level of investment

α = marginal savings rate

σ = marginal output-capital ratio

These concepts have been explained in detail in the previous Unit.

The Second Plan (1956-61) was based on a modified Soviet model. It was developed by **P.C.Mahalanobis**. This model was a two sector model - consumer goods and capital goods were the two sectors. This model stressed on capital goods sector. The Mahalanobis model of Second Plan stands as the centre of India's planning frame.

The *Third Plan (1961-66)* was based on the work of **Pant and Little** in **Perspective Planning Division (PPD)** of **Planning Commission**. **Manne and Rudra (1965)** prepared a consistency model for India's Fourth Five Year Plan. Unlike all the previously presented models, The Fifth Plan model incorporated a novel feature, which was ignored in earlier models. The implication of redistribution of consumption from the richer to poorer sections of the community were explicitly introduced into the planning model. The model structure behind the Sixth Plan was an extension of the model behind the Fifth Plan. The Sixth Plan attempted to integrate both the Harrod-Domar and input-output approaches of the earlier plans in a demand-supply frame. In order to impart to planning a futuristic outlook and then to make the vision a reality, the Seventh Plan (1985-90) was set within a 15-year perspective. The Plan was set out to stabilise the growth of the economy at an average annual rate of five percent. The model for Eighth Plan was also based on Seventh Plan though in this Plan the role of state for directly intervening in the economy has been considerably curtailed. The Ninth Plan follows the same path.

The following table shows the details of all the plans, their priorities and reasons for delays.

Plan	Period	Priorities	Reasons for delays
First Five Year Plan	1951-56	Agriculture	Plan holiday because of two Wars and two successive droughts
Second Five Year Plan	1956-61	Heavy industry	
Third Five Year Plan	1961-66	Agriculture and heavy industry	
Annual Plans (three)	1966-69	Consolidation	
Fourth Five Year Plan	1969-74	Removal of poverty	Did not complete its period because of change in Government in 1977.
Fifth Five Year Plan	1974-79	Removal of poverty and self-reliance	
Sixth Five Year Plan was converted to Annual Plan	1979-80	Employment	
			Did not complete its period because of change in Government in 1980

Plan	Period	Priorities	Reasons for delays
Sixth Five Year Plan	1980-85	Employment, food grains production and direct attack on poverty	
Seventh Five Year Plan	1985-90	Energy, employment, food grain production and raising productivity	
Annual Plans	1990-92	Infrastructure	Reformulated as the plan could not be finalised due to changes in two Government
Eighth Five Year Plan	1992-97	Economic growth, employment and liberalisation	
Ninth Five Year Plan	1997-2002	Economic Growth, Infrastructure, Agriculture, rural development, environment sustainability	

Check Your Progress 3

- 1) What was the period of First Five Year Plan ?
 - a) 1947-52
 - b) 1951-56
 - c) 1950-51
 - d) 1948-53
- 2) What was the period of Eighth Five Year Plan ?
 - a) 1980-85
 - b) 1985-90
 - c) 1992-97
 - d) 1970-83
- 3) How many five year plans have been completed in India?
 - a) 5
 - b) 7
 - c) 8
 - d) 10
- 4) When was Planning Commission set up?
 - a) 1938
 - b) 1947
 - c) 1950
 - d) 1951
- 5) What are the broad objectives of planning in India? Describe them in brief?

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7.5 PLANNING EXPERIENCE IN INDIA

While India adopted planning under a strong interventionist State its approach to planning differed in several crucial respects from that of the socialist (former as well as present ones) economies. The latter, as is well known, had virtually abolished

private property; all means of production were nationalised; the production and exchange activities of individual enterprises were supposed to conform to targets set by the planning authority. In India, much of the means of production have been and continue to be privately owned. Despite the significant expansion of the public sector, the private sector owns more than half of the stock of capital and accounts for nearly three-fourths of the annual output. The market mechanism is active over most of the economy, even if it is imperfect and distorted.

Private property rights in India are protected by legal rights against State take-over without compensation. Except for a modest programme of land reforms and the State control over some sectors like railways, coal mines and financial institutions, the State has, as a matter of policy, avoided nationalisation of property on any large scale. Instead it has relied on a mixture of direct and indirect controls to regulate the private sector activity. Attempts to promote equitable distribution of income and removal of poverty have operated largely through fiscal policy - especially public expenditure and pricing of goods and services provided by the public sector besides some direct programmes especially designed to eliminate poverty amongst target groups.

Planning in India has brought about major structural breaks, although not to the extent desired by planners. Planning was viewed as a way of avoiding the unnecessary rigours of an industrial transition in so far as it affected the masses. During the fifties, India's development prospects were rated rather high, domestically as well as internationally. It had a stable Government, an educated elite of sizeable dimensions, a commitment to planned development, and very low defence spending. Indeed, Nehru's vision of a mixed economy moving towards a socialistic pattern of society appeared to theorists of reformed capitalism as an answer to the challenge posed by the model of growth presented by Mao's Communist China.

During the sixties the atmosphere changed drastically. Two successive droughts, wars with China and Pakistan, followed by the declaration of 'plan holidays' for three years and large scale imports of food grains brought about a great change in the international perception. Internally also there was initially great uncertainty. The savings rate dropped. Excess capacity emerged in basic sectors such as steel and capital goods. Above all there was fear that maintaining food availability per capita was going to be a great problem in years to come.

But the system did not break down. With some adjustments in policy, production revived in agriculture, especially for food grains. Within ten years of droughts, all economic indicators pointed upwards. This happened when the world was passing through the Great Recession, and many of the success cases of sixties and seventies were experiencing negative growth or only mildly positive growth. However, in the nineties with the collapse of USSR and many of the East European socialist economies the centralised planning as a tool of economic development has come under severe attack. There is a move towards decentralised and indicative planning world over. The spectacular development experience of the East Asian economies (South Korea, Hong Kong, Taiwan, Singapore, Thailand, Malaysia) also point to the strong role of indirect state intervention through manipulating market mechanism in the development process (another example of indicative planning).

The role of planning is, as a result, undergoing changes where the private sector is being encouraged much more to achieve the socially desirable outcome. France is another successful example of this kind of planning strategy.

7.6 ACHIEVEMENTS AND FAILURES OF PLANNING IN INDIA

India has completed five decades of planning. It is, therefore, important to review this entire period so as to understand the accomplishment and deficiencies of the planning experience in India in achieving various objectives of social and economic development.

7.6.1 Achievements of Planning

Reviewing the performance of five decades of planning it can be said that it is a cause of legitimate national pride that over this period a stagnant and dependent economy has been modernised and made self-reliant. Moderate rate of growth of per capita income has been maintained despite the growth of population.

The following could be included in the list of achievements of planning in India (Table 2 for details):

Table 2 : Selected Indicators of Development

	1950-51	1960-61	1970-71	1980-81	1990-91	1995-96	1999-2000
Economic Indicators							
Index of Industrial production (1993-94)	7.9	15.6	28.1	43.1	91.6	123.3	154.7
Index of Agricultural Production (1980-81 base)	46.2	68.8	85.9	102.1	148.4	160.7	178.6(P*)
Food grains (million tons)	50.8	82.0	108.4	129.6	176.4	180.4	208.9
Finished Steel (million tons)	1.0	2.4	4.6	6.8	13.5	21.4	27.2
Cement (million tons)	2.7	8.0	14.3	18.6	48.3	69.5	100.2
Coal (Million tons)	32.3	55.2	76.3	119.0	225.5	292.3	322.1
Crude Oil (million tons)	0.3	0.5	6.8	10.5	33.0	35.1	31.9
Electricity generated (TWH) (Billion kilowatts)	5.1	16.9	55.8	110.8	264.3	379.9	480.7(P*)
Wholesale Price Index 1993-94 base	6.8	7.9	14.3	36.8	73.7	121.6	145.3
Consumer Price Index (1982 base)	17	21	38	81	193	313	428
Social Indicators							
Population (Million)	361.1	439.2	548.2	683.3	846.3	915.9	
Birth Rate (per 1000)	39.9	41.7	41.2	37.2	29.5	28.3	
Death Rate (per 1000)	27.4	22.8	19.0	15.0	9.8	9.0	
Life Expectancy at birth	32.1	41.3	45.6	50.4	-	60.8	
Literacy Rate (Percent)	18.33	28.31	34.45	43.56	52.2	-	

* Provisional

Source: Ministry of Finance, Economic Survey, Various issues

I) Indicators of economic progress:

- a) During 1950-51 to 1999-2000, our gross domestic product at factor cost (or the GDPfc) at constant prices has experienced an average growth rate of 4.1 percent

per annum. This average increased to 5.5 percent per annum in the decade of nineties;

- b) Savings as a proportion of GDP have risen from 10.4 percent in 1950-51 to 25.6 percent in 1995-96.
- c) As a consequence of sharp decline in death rate in this period the population grew at more than 2 percent per annum, and the net consumption grew at a modest rate of 1.4 percent per annum;
- d) The process of industrialisation in India has been impressive. A major achievement has been the diversification and expansion of India's industrial capacity with the public sector playing a leading role. The country is self-sufficient in consumer goods and in basic commodities like steel and cement, while the capacity of other industries like fertilizers, telecommunications etc., is rapidly expanding. The growth of capital goods production has been particularly impressive, and India is in a position to sustain the growth of most of its industries, whether textiles, food processing, or chemical or sugar, power or transport through domestic production.

Index of Industrial Production (1993-94 = 100) increased from 7.9 in 1950-51 to 154.7 in 1999-2000 indicating a growth of more than 6 percent per annum. The production of finished steel increased from 1.04 million tonnes in 1950-51 to 27.2 million tonnes in 1999-00. Similarly during 1950-51 and 1999-2000 the production of cement increased from 2.7 million tonnes to 100.2 million tonnes. Likewise, the production of coal rose from 32.3 million tonnes to 322 million tonnes in the same period. There was a tremendous increase in electricity generation from 5.1 to 480.7 billion kilowatts. In 1999-00, the crude oil production increased to 31.9 million tonnes from a mere 0.26 million tonnes in 1950-51;

The per capita cereal consumption increased from 334.2 grams in 1951 to 468.5 grams in 1995, but availability of pulses declined from 61 grams to 38.1 grams per day. However, the overall availability of food grains has improved from 395 to 498 during the same period;

- 1) The per capita availability of edible oils and vanaspati increased from 3.2 kilograms in 1950-51 to 9.2 kilograms in 1999-00. The per capita consumption of cloth increased from 11 metres in 1951 to 30.6 metres in 1999-00. Availability of other amenities of life has also increased significantly. There has been increased use of bicycles, scooters, cars, trucks, telephones, computers, televisions, refrigerators etc., which are pointers to the progress of the society.
- 2) Development of economic infrastructure, energy, transport, and irrigation: Another achievement of significance is the creation of economic infrastructure, which provides the base for the programme of industrialisation. The expansion of roads, road transport, railway network and telecommunications network has made it possible to connect people and transfer goods from one part to the other part of the country and linking India with the whole world. It has considerably enlarged the market size. Irrigation and hydro-electric projects have given a big boost to agriculture and also provided energy for industries. The infrastructure has helped in modernising semi-urban and rural areas.
- 3) Diversification of export and import substitution: As a consequence of the policy of industrialisation and the policy of import substitution, India's dependence on foreign countries for the import of capital goods has declined. Similarly, quite a good number of consumer goods imported earlier are now being produced

indigenously. Also, the commodity composition of its exports has changed in favour of manufactures, mineral ores and engineering goods.

II Indicators of Social Progress:

- 1) **Rise in the life expectancy of the Indian people:** Whereas the life expectancy of an average Indian was 33 years in 1951 it has risen to 61 years in 1995. This is largely due to the virtual elimination of dreaded diseases like small-pox, plague, reduction of incidence of the malaria and cholera. Besides this, better health facilities have also led to a marked fall in infant mortality. Although under-nourishment accounts for poor health of a large proportion of the population, even then an increase in life expectancy is a creditable achievement.

The other social indicators also points towards significant progress. Birth rate in India, which was 39.9 per thousand in 1950-51, declined to 28.3 in 1995-96. As against it, the death rate dropped sharply from 27.4 per thousand to 9.0 in 1995-96. Infant mortality fell from 146 to 74 per thousand in the same period.

- 2) **Development of a good educational system contributing to significant advances in science and technology** One of the greatest achievements of planning has been the development of the third largest pool of trained manpower with high educational qualifications. This has been crucial in the significant growth of science and technology in the country. This has considerably reduced our dependence on the foreign technology and experts. Being relatively more advanced than many other developing countries in this respect, India has started extending technical expertise to many of the Middle-East, Asian and African countries. This is a matter of legitimate pride.

7.6.2 Failures of Planning

From the credit side of the planning, now we turn to the debit side of the account and focus attention on the deficiencies of planning in India.

For over four-and-a-half decades of planning, the Government has been constantly impressing upon the people of India that development planning in India aims to build up a *socialistic pattern of society*. *The crucial question, therefore, is: Whether the lot of the underdog, the weak and the under-privileged has improved?* In other words, have benefits of the development percolated down to the lower layers of the Indian society? This has happened only to limited extent and evidence of that is the following:

- 1) *Failure to provide a basic minimum level of living to the whole population:* The basic objective of planning has been the provision of a basic needs minimum to all. But little has been achieved on this front by India.
- 2) *Failure to reduce inequalities of income and wealth:* There is no evidence that during the last 50 years of planned economic development, any redistribution of income in favour of the less privileged classes has taken place. Between 1950-51 and 1995-96 the per capita income has risen by 1.7 percent per annum. But even this small increase is unequally distributed. Studies indicate that the small gains of development over the years have not been equally distributed among all sections of the society. The condition of the bottom 20 percent of the population had definitely deteriorated and for another 20 percent of the population, it remained more or less stagnant. Thus, while the character of rural poverty has deepened further, there is evidence of increased concentration of income and wealth in the hands of propertied class.

- 3) *Failure to provide productive employment to all able-bodied persons:* With the progress of planning, the problem of unemployment as well as underemployment is also on the increase. Backlog of unemployed persons has been rising since the end of the First Plan. Development Plans in India were unable to absorb even the natural increase in labour force during each plan period, not to speak of alleviating the huge backlog of unemployed.
- 4) *Inadequate infrastructure availability:* Another failure of the Planning process has been the prevalence of large scale inefficiencies in construction, running and maintenance of the infrastructure projects in the public sector constraining the growth of the economy from its maximum potential. Situation has reached alarming proportions since the mid-eighties especially in case of power, railways and roads. Most of the power plants operate much below capacity (around 50%), transport infrastructure are heavily congested. The failure of the planners has been that they have been unable to foresee these bottlenecks and as a result the economy has not been able to grow at its full possible potential.
- 5) *Neglect of small and marginal farmers and redistribution of land:* One of the basic policy decisions to transfer ownership of land to the peasantry (i.e. the land reforms) has not been properly implemented. Though, there have been some efforts made in some states like West Bengal, Karnataka, Tamilnadu etc. It has been now admitted by the Government that progress of land reforms has been rather slow and that the state governments were not eager to implement them with a speed sufficient for quicker transition to progressive agriculture and equitable distribution of resources.
- 6) *The relative neglect of regionally balanced agriculture sector* has been another major failure of the planning process in India. The average land productivity of India is very low compared to most of the fast growing developing economies of East Asia and China. The average land productivity in China, for example, is more than 4 times that of India. This is due to the policy of encouraging agriculture in selected regions of the country only and leaving rest of the country-side dependent on rains for irrigation.

In conclusion, it may be pointed out that so far there has been great divergence between plan targets and their implementation. The philosophical and academic quality of the plan documents may have been fine but there has been a major crisis of implementation due to the existence of wide gap between theory and practice. It is this aspect of economic planning, which provides the Achilles' heel to our social set-up.

7.7 CHANGING PERSPECTIVE OF PLANNING

Complete planning by direction is just as much ruled out as is complete laissez-faire due to:

- i) the central planner, who issues the direction, cannot hope to see and provide all the consequences of his actions. The economic system is exceedingly complex. It is because of this complexity that fulfillment of *plans by direction* is so unsatisfactory. In planning by direction the result is always a shortage of certain things, and a surplus of others. Planning by market handles all this better because, in any sphere that is affected by the decision to have more of anything, the flow of money and the adjustment of prices acts as a 'governor', turning on and off automatically.

- ii) for the same reason, **planning by direction is inflexible**. The plan once made must be adhered to simply because you cannot alter any part of it without altering the whole, and altering the whole is too elaborate a job to be done frequently. The price mechanism can adjust itself from day to day, and demand and production respond; but the economy planned by direction is inflexible.
- iii) the follows from these two. As the plan proceeds fulfillment is bound to be imperfect - even if the plan was perfect when it was made, conditions change. There could be a strike, an accident in a sector, which will affect the production of other sectors of the economy as well.
- iv) Central planners tend to excessive standardization, not because it is good for public, but because it simplifies their job. It kills competition among the companies and discourages them to improve the quality of the product in question. So, the process of technological change also gets stifled.
- v) the more one tries to overcome the difficulties of planning by direction, the more costly planning becomes in terms of resources. We cannot plan without knowledge, for which elaborate censuses, numerous forms and array of clerks are needed. The better we try to plan, the more planners are needed. The market mechanism does the same job without an array of planners who are thus released for useful work in the economy.

On account of complexity, planning by direction does not increase, but on the contrary diminishes democratic control. A plan cannot be made 'by people' or by parliament; it has to be made by officials, because it consists of thousands of details fitted together. The more we direct from the centre the less the control that is possible. When government is doing only a few things we can keep an eye on it, but when it is doing everything it cannot even keep an eye on itself.

The obvious moral of this is that the aim should be to preserve free markets wherever feasible. For the state can achieve most of its planning goals by controlling in its turn the market which controls the entrepreneur. The state can achieve plan targets in an effective manner not by direction but by manipulating the market. An appropriate policy of tax and subsidy can be used more effectively to encourage or discourage the production or consumption of any good and service.

The central issue in the discussion of planning in India has been not whether there shall be planning but what form it shall take, and in particular the state operate through the market mechanism (indicative planning) or supersession of it (centralized planning or planning by direction). Suppose for example, the government decides that, to promote industrial growth in a sustained manner, the production decisions need to be regulated. Now state could do this in various ways:

for example,

- i) it could decide to set up government corporations, call public sector enterprises to directly control the production decisions;
- ii) it could regulate production by making laws which ensure that anyone wanting to produce any industrial product has to take a license from the government; and
- iii) it could also use the fiscal, monetary and tax-policies to encourage or discourage the production of various industry groups by adopting appropriate policies.

In the Indian context, the state used first two options more often than the last one. The system of industrial licensing and large scale investment in publicly owned

industries created a strong industrial base for the Indian economy. But around mid-sixties the inflexibilities and unnecessary bureaucratic interference started creating problems. This resulted in slow-down in the industrial growth in the 1965-1980 period. In the eighties and nineties, planners started loosening the grip of direct approach and started stressing more on the fiscal and monetary planning to achieve plan targets.

Agricultural sector, on the other hand, is an example of indicative planning. The state used pricing policy, credit policy and institutional mechanisms to promote agricultural growth and achieved the plan targets quite successfully.

Since the late seventies the planning process has been undergoing drastic changes world over due mainly to the above mentioned reasons. This is further reinforced by the collapsing centrally planned economies of former USSR and the East European economies on the one hand and the spectacular performance of the East and South East Asian economies on the other which stressed on planning by manipulating the market.

In India also, since July 1991 there is move in the same direction. The role of state in the economy is being reformulated and the private sector is being given more and more freedom to operate in almost all areas of economic activity. The **industrial licensing** has almost been completely done away with. The list of sectors reserved exclusively for the public sector has been substantially pruned. The state is withdrawing from many sectors of the economy where it had no business to be there in the first place. The only problem seems to be that it is also withdrawing from those activities like primary education, basic health etc. which require strong state intervention. This is a disturbing trend being observed of late in India.

Check Your Progress 4

- 1) What, in your view, have been the three major failures of the planning process in the Indian economy?
.....
.....
.....
- 2) What have been the three major successes, in your opinion, of the planning process in the Indian economy?
.....
.....
.....
- 3) Why is there a need to shift the focus of planning process in India? Do you think since the last few years the shift has been in the right direction?
.....
.....
.....
- 4) In India, direct and indirect approach to planning has been used for different sectors at the same time. Which sector was largely guided by direct and which by indirect approach? Discuss in brief.
.....
.....

7.8 LET US SUM UP

A critical review of the Indian development plans takes us to the following conclusions:

First of all, India's macro-economic performance has been only moderately good in terms of GDP growth rates. Allowing for the fact that for the better part of the entire plan period, population has increased by more than 2 percent per annum, the growth of per capita income on an annual basis has been somewhat less than 2 per cent per annum.

Secondly, while India has had to reckon with a fair measure of inflation from time to time (1965-67, 1972-74, 1979-80 and 1991-94), the average rate of inflation has been a very modest one by international standards. There have been two major reasons for this success. One is the ability to maintain a rate of growth of food grains of around 3 percent per annum over the period as a whole. The other is the financial deepening that was experienced by the country over the last 25 years, which allowed domestic saving to go up in a monetized form. The rise in domestic saving rate from around 10% of GDP in the fifties to around 24% currently is generally judged as impressive.

Thirdly, there has been considerable capital formation in human terms. India today has a very wide base of skilled workers to draw upon, even if the level of efficiency varies a great deal across sectors.

Therefore, it would be as rash to draw a conclusion as to dismiss Indian development planning as an 'essay in failure', as to describe it on the whole as a 'great success'.

Among the major weaknesses, the following can be listed:

First, there are many areas of production where inefficiency is fairly widespread, as in generation of power, transport, steel, fertilizers let alone high-cost of consumer durables. There is no inherent reason why plant load factor (or capacity utilization level) in thermal power stations have to be around 50%. There is much greater scope for improving the efficiency of the integrated steel plants, as well as the thermal power plants.

Second, Indian planning has left a large number of people below the poverty line and poverty figures "indicate that gross poverty exists in the country, as the norm used for these purpose is based principally on calorie intake." Chakravarty, S.(1987), p 85.

Thirdly, India has not been able to employ proportionately larger population in the industry. The occupational structure has remained more or less unchanged. This has mainly been the result of higher population growth and also the industrialisation strategy followed which has been heavily biased in favour of capital-intensive industrialisation.

Lastly, the failure of the Mahalanobis strategy to the lack of comprehension on the part of the planners regarding the full set of logical implications of the accelerated growth in the context of a mixed economy. "This showed that the process of industrialization had ignored certain important issues relating to the phasing of

investment outlay. But probably more importantly, the ability to carry out effective land reforms in the early fifties when conditions had been reasonably opportune, along with maintenance of largely unchanged input base of traditional agriculture, meant that the agrarian transition was left largely incomplete." Chakravarty, S. (1987) p 8.

Hence, whereas the planning process has been able to *create social and economic infrastructure, provide an industrial base by fostering the development of heavy and basic industries, it failed employment to every able-bodied person, eliminate poverty and bring about institutional reform leading to reduction of concentration of income and wealth.* Moreover, the benefits from the economic infrastructure have largely confined to the relatively affluent and those in urban areas. These fundamental failures of the Indian planning process emphasize the need for a re-appraisal of the overall development strategy of planning. We must face the facts that the most important objective of planning has not been achieved, the most cherished goals seem to be almost as distant today as when the planning process was initiated in the country. These aims of planning - implicit in all our plans more explicitly stated in the formulation of our development strategy - are universally accepted by the Indian people; they are the removal of poverty, enough opportunities of productive employment for all, and creation of more egalitarian society.

7.9 KEY WORDS

Balanced Development: Strategy of development in which effort is made to develop all the sectors of the economy simultaneously so that the growth of the economy does not get constrained due to inadequate development of a particular sector/s.

Capital-intensive: Refers to the technique of production, which requires higher input of capital per unit of output relative to labour input.

Fiscal Year: Fiscal year refers to the year beginning April 1 to March 31 of the next year.

Fiscal Policy: Policy relating to control of government expenditure or taxation according to the requirements of the economy whereby in the periods of slowdown government expenditure is raised and economy is boosted up. Reverse is done in case of overheating case.

Increasing Returns to Scale: This is the situation when if you double all inputs for producing some product its output expands more than twice. That is cost per unit of output keeps falling as output is expanded. The Decreasing Returns to scale is just the reverse of this.

Laissez Faire: Refers to the policy of no state intervention in the economic activity in an economy.

Monetary Policy: Policy relating to control of money supply according to the needs of the economy whereby in the periods of recession extra money is injected into the system to tackle slowdown in the economy. Reverse is done in case of inflation (or overheating) case.

Public Utility: An enterprise, which is the sole supplier of some essential good or services and is, in consequence, subject to some form of government control

Public Goods: The common characteristic of public goods is non-excludability and non-rival consumption. That is it is not feasible to exclude other consumer from

consuming it and consumption by one person does not reduce its availability to others, e.g. national defence, clean air, TV or radio broadcast.

7.10 SOME USEFUL BOOKS

Chakravarty, Sukhamoy(1987). *“Development Planning: The Indian Experience”* Oxford University Press, New Delhi.

Dutt, R. and Sundaram, K.P.M.(2000). *“Indian Economy”*, S.Chand & Company Ltd., New Delhi, Chapters 8,9,16.

Eswaran, Mukesh & Kotwal, Ashok (1994). *“Why Poverty Persists in India”* Oxford University Press, New Delhi, Chapter 1, pp 1-25.

Kapila, U.(1996). *“Indian Economy since Independence”*, 7th Edition, edited, Academic Foundation - TRP, Delhi, Chapter 1-3 p 25-45.

Vaidyanathan, A.(1995). *“The Indian Economy, Crisis, Response and Prospects”*, Orient Longman, New Delhi.

7.11 ANSWERS OR HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

1) Limitations of the market system:

- a) equity considerations
- b) public goods
- c) externalities
- d) natural monopoly

for further details look at the Section 7.2.

2) Direct approach refers to ownership of economic activity through public sector whereas the indirect approach is based on manipulating the market system. For details see the Section 7.2.

3) Refer to Section 7.2.

Check Your Progress 2

1) Role of state derives its importance from failures of the market and achieving of some crucial social objectives like primary education, basic health facilities etc. Refer to Section 7.4 and 7.2 for details.

Check Your Progress 3

- 1) b)
- 2) c)
- 3) c)
- 4) c)

5) The basic objectives and self-reliance of economic development in India have been growth, modernisation of the economy, and social justice (mainly reduction in economic inequalities and removal of poverty). You should also have a serious look at the Section 7.4 and its subsections.

Check Your Progress 4

- 1) Refer to the Section 7.6.2, which discusses the failures of planning in India in detail.
- 2) Refer to the Section 7.6.1, which discusses the successes of Indian planning in detail.
- 3) It has amply been demonstrated that there are severe limitations to centralised planning, which stress the need for decentralised and indicative planning. The Indian planners also have made an attempt in that direction. For limitations of planning by direction see the Section 7.7 on Changing Perspective of Planning.
- 4) As discussed in this Section, agriculture sector in India was guided by indirect approach and industrial sector was guided by direct approach to planning. For elaborate details read Section 7.3 and 7.7.

UNIT 8 NATURAL RESOURCES

Structure

- 8.0 Objectives
- 8.1 Introduction
- 8.2 Knowledge of Natural Resources
 - 8.2.1 Classification of Natural Resources
- 8.3 Land and Soils
 - 8.3.1 Land Utilisation in India
 - 8.3.2 Trends in Land Utilisation
 - 8.3.3 Soils
 - 8.3.4 Problem of Soil Erosion
- 8.4 Water Resources
 - 8.4.1 Rivers
 - 8.4.2 Problems of Inadequate Availability
- 8.5 Forest Resources
 - 8.5.1 Present Position
 - 8.5.2 Problem of Deforestation
 - 8.5.3 National Forest Policy, 1952
 - 8.5.4 New Forest Policy, 1988
- 8.6 Mineral Resources
 - 8.6.1 New Mineral Policy, 1993
 - 8.6.2 New Economic Policy and Privatisation
- 8.7 Energy Resources
 - 8.7.1 Sources of Commercial Energy
 - 8.7.2 Sources of Non-commercial Energy
- 8.8 Let Us Sum Up
- 8.9 Key Words
- 8.10 Some Useful Books
- 8.11 Answers or Hints to Check Your Progress Exercises

8.0 OBJECTIVES

After going through this unit you should be able to:

- Identify the physical dimensions of our country, such as land area, its utilisation, available soils, water, minerals, etc;
- Discuss how these factors influence the production of resources;
- Enumerate the steps taken and need to be taken to increase the productivity of these resources;
- Identify the economic role of minerals and forests in the Indian economy; and
- Explain the different sources of energy in the Indian economy and their relative importance.

8.1 INTRODUCTION

As in most other developing countries, a large proportion of population of India is dependent upon agriculture and other primary activities which consist in direct exploitation of natural resources. The natural resources of India, as the following survey indicates, are varied and provide an adequate basis for building a diversified modern economy.

8.2 KNOWLEDGE OF NATURAL RESOURCES

Information on stock of natural resources is much better in case of India than in most developing countries. Basic resource survey agencies have been in existence for a century or more and systematic surveys and investigations of resources have been undertaken by them.

Work on mapping and surveys of natural resources has expanded greatly under the Five Year Plans. The older agencies, such as the Survey of India and the Geological Survey, have been expanded in order to enable them to undertake larger programmes of work. New agencies have been created to undertake specialised tasks or surveys in field which had not been covered earlier. The **Indian Bureau of Mines** was established in 1950 to undertake an economic assessment of natural resources and to formulate programmes of development. The **Oil and Natural Gas Commission (ONGC)** was established in the late 1950's to undertake exploration and development of petroleum resources. It has been responsible for major discoveries of oil and natural gas in Assam, Gujarat and Bombay High. The **Central Water and Power Commission** (now bifurcated into two), established in 1945 has the responsibility for the coordination of hydrological investigations and assessment of natural resources. A **Soil Land Use Survey** has been established under the Indian council of Agricultural Research. Systematic soil surveys are being undertaken by it in cooperation with the Departments of Agriculture in various states. The national laboratories and institutes of scientific research also undertake studies relating to evaluation and utilisation of natural resources.

But experience under the plans has demonstrated the need for further expansion or acceleration of work in some directions, a greater use of modern survey and mapping techniques and a more adequate economic assessment of natural resources. Investigations of soil fertility and for ground water will need to be expanded and improved further in order to provide data for an intensive use of chemical fertilisers and efficient water management, which are essential for the successful use of the new high-yielding varieties or other programmes of intensive cultivation.

Modern survey techniques, such as aerial photography, aero-magnetic survey and remote sensing, which have advanced very rapidly in recent years but which are not used adequately by the Indian survey agencies will need to be used much more. The use of these techniques reduces the time requirements of surveys and preparation of maps; makes possible surveys of inaccessible areas and aids location of estimation or reserves of minerals and other natural resources.

8.2.1 Classification of Natural Resources

Natural resources can be classified in two groups, viz. (i) reproducible resources, and (ii) non-reproducible resources.

- 1) **Reproducible resources** consist of those objects that are available to us from nature and whose quantity keeps on getting replenished. For example, the availability of both ground and surface water gets replenished by rainfall. Similarly, new trees keep on growing. Replenishment may be a natural process, although it may be helped by a little action on the part of the user. For example, if suitable provisions are made for proper channeling and storage of water, wasteful run-away of water can be prevented.

- 2) **Non-reproducible resources** are available to us in the form of fixed stocks. As we consume more of these resources, our stocks get depleted. Therefore, a suitable policy about the use of these resources is to be formulated. Such a policy should be based on the considerations of a balance between the present consumption and future requirements of these resources. Similarly, there may exist unidentified stock of these resources. Sustained efforts would be required to discover such resources and make them utilisable.

8.3 LAND AND SOILS

India measures 3,214 km. from north to south and 2,933 km. from east to west with a total land area of 32,87,782 sq. k.m. It is the seventh largest landowner in the world after Russia, Canada, China, the USA, Brazil and Australia in that order. In brief, India is a vast country and has a considerable strategic significance on account of its location, size and economic resources. Standing at the heart of the Indian Ocean, the country is in a much better position than any other in the area to control the Indian Ocean routes, most of which touch the Indian ports. Most of the air routes between Europe, West Asia and Africa and East Asia, South-East Asia and Japan also pass through India. It gives India an advantage in terms of international mobility of persons and commodities.

8.3.1 Land Utilisation in India

The total available land area in a country sets definite limits within which the land-base can be stretched horizontally during the process of economic development. As this process advances, the demand for land increases; new uses for land are found, land gets diverted from its existing use to the newfound uses. More generally, the shift is from the agricultural use to the non-agricultural uses, viz., industrial construction and trading purposes. In the case of a developing, labour-surplus, agriculture crop-based economy, this intrusion on agriculture land assumes serious postures. Any diversion of land from agricultural use to non-agricultural uses may disrupt agricultural supplies and this adversely affects the whole process of growth. Therefore, in the face of increasing requirements of land, what is generally stressed is that the inaccessible, waste and fallow lands and the lands, which have hitherto been lying unutilised, should be commissioned and made serviceable for agricultural and non-agricultural uses. It is in this context that statistics relating to the land utilisation pattern become significant. These are given in Table-1 below.

Table 1: Land Utilisation in India

(Million Hectare)

1. Area under non-agricultural uses	21.2
2. Barren and uncultivable land	19.7
3. New Sown Area	142.2
4. Forest Lands under good tree cover	38.6
5. Miscellaneous tree crops and groves	3.7
6. Forest lands under poor tree cover	29.3
7. Cultivable waste lands	15.0
8. Current Fallows	13.8
9. Old Fallows	9.6
10. Permanent pastures and grazing ground	11.8
* Total	304.9

* Total geographical area for which land utilisation statistics are available.

These help to determine the contours of future economic development as far as the availability of land resources is concerned. The available land, on the basis of its use, can be classified into two parts, viz., (i) Agricultural land, and (ii) Non-agricultural land.

- 1) **Agricultural land:** It includes net sown area, current fallows and land under miscellaneous tree crops and groves. Agricultural land in India totals a little over 50 percent of the total geographical area in the country. This is the highest among the large or medium-sized countries of the world, indicating: (i) the influence of favourable physical factors such as large area, the extent of plains and plateaus and a very small extent of arid areas, and (ii) the extension of cultivation to a large proportion of the cultivable land. But, because of the large population the **per capita availability is not high; the figure of 0.20 hectares is lower than the average for the world** and is only one-fourth of the U.S. figure. About 15 per cent of the sown area is multi-cropped (sown more than once in a year), while one-fourth of the gross cropped area is irrigated. Most of the multi-cropped area is irrigated and the security provided by irrigation facilities is a major factor in intensive application of labour and inputs to obtain high yields.
- 2) **Non-agricultural Land:** This includes land under forest, permanent pastures, other non-agricultural uses (towns, villages, roads, railways, etc.) and land classified as cultivable waste as well as barren and uncultivated land of mountain and desert areas.

8.3.2 Trends in Land Utilisation

Two important changes in the land utilisation witnessed during the last five decades are : (a) **reclamation of waste and fallow lands**, and (b) **a significant increase in the 'area sown more than once'**. Reclamation of waste and fallow lands was relatively rapid during the 1950s, following land reforms, such as the abolition of **Zamindari and Jagirdari system**. The dispossessed Zamindars reclaimed land, which had been left to them for 'personal cultivation' while their former tenants reclaimed waste, and fallow lands to which they had acquired rights. The process was aided by loans and subsidies from the Government.

The **'area sown more than once'** has also shown a significant rise during the last five decades. In view of the fact that (a) demand for land in non-agricultural uses is constantly increasing, and (b) a further increase in the net sown area may not be an easy task, it is imperative that attention is paid towards an improvement in agricultural technology, so that it should be possible to raise three to four crops a year as some countries are doing. With the new agricultural strategy having very much come to stay, the objective should be within an easy reach.

Futurologists have put the estimated requirements of land in the country in the year 2000 A.D. at approximately 46.2 crore hectares on the higher side, and about 42.7 crore hectares on the lower side. It is clear that the total supply of land is a fixed factor. Therefore, what is required is that an effective rationing of land among the varied uses be made. As far as possible, no further encroachments on cultivable land should be allowed. Priority should be given to non-cultivable land for non-agricultural uses. This will not only save cultivable land for agriculture, but will also promote a balanced regional development.

8.3.3 Soils

The cropping pattern of the country is greatly influenced by the soils and the elements of the physical environment. **The Indian Council of Agricultural Research (ICAR)** divides the soils found in the country into eight major groups which are; (i) alluvial soils including the coastal and deltaic alluvium; (ii) black soils of varying types; (iii) red soils including red loams; (iv) laterite and laterising soils; (v) forest soils; (vi) arid and desert soils; (vii) saline and alkaline soils; and (viii) peaty and organic soils. Keeping in view their extent and agricultural importance, the first four, viz., alluvial, black, red and laterite soils in that order, form the most important soil groups in the country. Almost the entire cultivated area in the country is covered by these soils. Alluvial soils are suitable for the cultivation of almost all kinds of cereals, pulses, oilseeds, cotton, sugarcane and vegetables. Black soils are known for their fertility. They give good yields despite continued cultivation and without proper manuring. Cotton, cereals, oilseeds and many kinds of vegetables and citrus fruits are some of the crops suited to black soils. Similarly, almost all kinds of crops can be grown on red soil, although it seems to be more suitable for the cultivation of rice, ragi, tobacco and vegetables. Laterite soils are suitable, among others, for rice and sugarcane.

Different types of soils distributed evenly throughout the country, abounding in fertility and higher yields, and highly responsive to improved inputs are found in the country. For example, we find the desert-like region of Rajasthan on the one hand and the rich cultivable land of Gujarat on the other. The variety of soils coupled with the fact that we have in the east the world's highest rainfall zone and in the west one of the driest regions along with every shade of climate throughout the country makes possible the production of almost every kind of crop starting from those of the temperate zone to tropical production.

8.3.4 Problem of Soil Erosion

Through constant use, the quality of the available soils in India has deteriorated slightly. Moreover, large tracts of land have been eroded. It has been estimated that about 80 million hectares is suffering from varying degrees of soil degradation. Localised soil water logging and salinity are most severe in India (27 per cent of irrigated land), Pakistan (20 per cent) and China (15 per cent).

Although our plans have given priority to soil conservation and land stock improvement, we can identify the following difficulties in containing the degradation of land resources and bringing them back to productive uses: (a) management of community land; (b) lack of infrastructural development; (c) high investment and long gestation; and (d) non-availability of institutional finance due to low credit worthiness of the beneficiaries having marginal and sub-marginal lands.

Check Your Progress 1

1) What is the use of statistics relating to land utilisation ?

.....

2) What do you mean by "area sown more than once" ?

.....

.....
.....
3) Mention different types of soils available in India.

.....
.....
.....
4) Discuss the importance of the availability of different types of soils in India.

8.4 WATER RESOURCES

Water is the most important source of energy in the Indian economy. About 25 per cent of electricity generated in the economy is from the hydel sources. The other important use of water is in irrigation. In a country where agriculture gives twists and turn to the whole economy, provision of water can make all the difference; it can either stimulate the economic activity or depress it altogether.

The important sources of water can be classified into two parts: (i) **surface water**, and (ii) **ground water**. Surface water is available from such sources as rivers, lakes etc. Ground water is available from wells, springs, etc. Other sources of water, which have not yet been tapped in the country, but nevertheless represent potential sources are: saline lakes, saline springs, snow and ice fields. Surface water sources are replenished by rainfall.

Of the two sources, surface water is more important and possess potential of growth in future. Surface water is available in the form of vast network of rivers available in the country.

8.4.1 Rivers

The rivers in India may be classified as (i) The Himalayan rivers, (ii) Deccan rivers, (iii) Coastal streams, and (iv) Rivers of the inland drainage system. The **Himalayan rivers** are generally snowed and have, therefore, a continuous flow throughout the year. During the monsoon months, the Himalayas receive a very heavy rainfall and the rivers discharge the maximum amount of water causing frequent floods. The **Deccan rivers** are generally rain-fed and, therefore, fluctuate in volume. The **coastal streams** specially of the West coast are short in length and have limited catchment areas. Most of them are non-perennial. The streams of the inland drainage basin of Western Rajasthan are few and far between. Most of them are of seasonal character.

The **Ganga basin** is the largest river in India, receiving water from an area, which comprises about one-quarter of the total area of the country. The second largest river basin is that of the Godavari. It covers an area, which comprises about 10 per cent of the total area of India. Two other, although small, yet, important from the agricultural point of view, are those of **Tawi** in the North and the **Panner** in the south.

8.4.2 Problem of Inadequate Availability

It would be seen that India possesses large reservoirs of water, but these are inadequate as compared to their requirements. For instance, taking a long-term projection, the total cropped area is expected to go up from 165 million hectares in 1970-71 to 210 million hectares in 2025 A.D. The total irrigation potential, on the other hand, is expected to go up to only 113 million hectares in 2025 A.D. i.e., only 52 per cent of the cultivable area will get the supply of water. In view of complete inadequacy of resources to meet the agricultural and other requirements, it becomes a matter of great national importance that the available resources are conserved and utilised most judiciously and economically.

8.5 FOREST RESOURCES

Forests produce the requisite raw materials for industries, defence, communications, domestic use and other public purposes. They contribute to the country's exports and create a large volume of employment in the primary, secondary and tertiary sectors. They also provide materials like fuel wood, small timber, fodder etc., for direct use by the agriculturists. The benefits from forests in the matter of soil conservation, recreation, wildlife, etc., have been well recognised. Forests have multifarious uses, some of which can be identified as follows:

- i) Trees and forests have many uses, and are, therefore, considered as one of the important natural resources of a country. Plants through photosynthesis convert the solar energy into various forms of energy like food, fuel, oil products, raw materials for industries, and other indirect sources of renewable energy, which can be directly used by us.
- ii) The thick foliage-mix prevents soil erosion, and holds moisture content in both the soil and the atmosphere. This prevents an area turning into desert. As 1980 FAO (Food Agricultural Organisation) report on Forest Resources of Tropical Area clearly states, **forests harbour wildlife, stabilise soil, water and climatic regiments.**
- iii) Forests meet the basic needs of the poor people of the country in many ways. A large section of the country's population depends on forests for firewood, which is basic for human survival. Failure to meet the basic needs of rural people may compel them to depend on the firewood in the near future also. But, the scarcity of firewood is being felt already in various parts of the country especially in Indo-Gangetic plain and Himalayan-Assam region. It is estimated that at current rates of increase in firewood consumption and depletion of forestland, the country may require 182 million cubic metres of firewood by 2000 A.D. Obviously, this may put millions of women - who go out to collect the firewood everyday to forests - into serious difficulties.
- iv) Forests offer good employment opportunities too, mainly to the rural population. It is believed that forests have much more capacity to give gainful employment, provided we spare enough funds and efforts for their development. **The National Commission on Agriculture (NCA)** in 1976 estimated that if the programmes recommended by it were implemented by the government, our forests would provide direct employment of 15 million man-days or 2.5 lakh man-years in addition to the present one. In addition, indirect employment would be created. What is still more important, the new employment would be created where it is exactly wanted, in rural areas, backward regions and hilly tracts. The importance of this social gain cannot be over-emphasised.

- v) It is easy to justify huge investment in development of forests on purely economic grounds. Returns on such investments have been found to be quite substantial in comparison to the returns on similar types of investments in agriculture, etc.
- vi) Among other things, forests supply pure oxygen, prevent environmental and sound pollutions, maintain ecological balance by providing shelter both to wildlife and birds, and finally add to the aesthetic beauty of the country.
- vii) Calling tropical forests the “**great chemical factory of the natural world**”, the Washington based **World-Watch Institute**, in a recent report, noted that 40 per cent of the prescription drugs have active ingredients derived from wild plants, animals, or microorganisms, many of them from forests.

Above all, to the “silent majority” among whom number the conservation minded, the forest is a treasure house of knowledge as well as a place that provides the peace and quite which is so absent in the artificial world of man’s other jungle - “the concrete jungle”.

8.5.1 Present Position

Forests occupy about 752.9 lakh hectares or about 19 per cent of the total geographical area. Of these about 389 lakh hectares or about 52.0 per cent are exploitable; another 160 lakh hectares or about 12 per cent are potentially exploitable. A variety of major and minor products are obtained from forests. **Industrial wood and fuel wood are two major products.** Among the **minor products** we may include **all other products obtainable from forests other than wood.** In these we may include **bamboos, canes, Tendu leaves, grasses, essential oils, medicinal plants, lac, resins, gums, tanning materials, dyes, animal products,** etc. The total production of major forest product during 1997-98 amounted to 157 lakh cubic metres (M³) from which the State Forest Departments received Rs.353 crore as royalty. Another sum of Rs.113.2 crore was received by the State Forest Departments as royalty from the minor products. Net contribution of forest revenue was estimated at Rs.1,853 crore during 1997-98.

8.5.2 Problem of Deforestation

The area under forests in India is low not only as compared to the forest area in countries like Japan (67%), Sweden (68%), Canada (49%), Brazil (65%), and USA (32%), but is also much less than the norm of 33 per cent of the total reporting area recommended in the National Forest Policy of 1952. The per capita forestland in India is 0.08 hectares as against the world average of 2.08 hectares. What is of critical concern is the fact that in the wake of rising population and economic growth the pressures on forest wealth have been building up. Over the years trees have been recklessly cut down both for their own sake as also for vacating the land, and thereby diverting the land to non-forest uses. This process is known as deforestation. Deforestation is the result of man’s need and greed both. The net result is that in spite of concerted efforts in our plans, it has not been possible to increase the area under cultivation. Further, the productivity of Indian forests is very low i.e. 1.2 cubic metre per hectare per year as against the world average of 2.1 cubic metre. In future, the demand for forest products is likely to increase fast. The domestic requirements of industrial wood and fuel wood in 1985 was 35.18 lakh M³ and 202 lakh M³ respectively. As per the estimates available from the National Commission on Agriculture, the aggregate requirements of industrial wood are projected to go up to 64.45 lakh M by the year 2000. It is necessary, therefore, that we review comprehensively the National Forest Policy.

8.5.3 National Forest Policy, 1952

The National forest policy was first enunciated in 1952 and subsequently revised in 1988. In 1952 the policy was formulated on the basis of six paramount needs of the country. The **first** necessity was evolving a system of balanced and complementary land use. The **second** was checking the denudation of mountain regions, the erosion of space along the treeless banks of the great rivers leading to ravine formation, and the invasion of sea and coastal tracts. The **third** was establishment of tree lands, wherever possible. The **fourth** was the need for ensuring progressively increasing supplies of grazing fields, small wood for agricultural implements and in particular firewood to release cattle-dung for manure. The **fifth** was the need for sustained supply of timber and other forest produce required for defence, communication and industry. And, **finally**, there was the need for the realisation of the maximum annual revenue in perpetuity consistent with the fulfillment of the other needs enumerated above.

Since then developments of far-reaching importance have taken place in the economic, social and political fields. The increase in population has given rise to diversified demands for a large variety of products on the one hand, and built up a heavy pressure on land on the other. The concept of saving trees is foreign to the Indian psyche. Foresters tend to see forests as wood factories.

8.5.4 New Forest Policy, 1988

In response to the changing requirements of the economy, the national forest policy has been revised and a new policy announced in December, 1988. Two important distinguishing features of this policy, which make it different from the 1952 policy, are as follows:

First, the policy lays emphasis on the conservation of forests, and meeting the requirements of the tribal and rural people. The 1952 policy had stressed the production objective and consequently the stipulation of bringing one-third of the geographical area under forest cover. This objective could not be achieved for various reasons including lacunae in the law. These have been sought to be corrected in the new policy.

Similarly, the earlier policy had given priority to the national needs and had categorically stressed that where conflict occurred between the local requirements and the national needs, the latter would get priority. It has been realised by now that conservation objective could be met only if bonafide requirements of the local people were met. This aspect has been emphasised in the 1988 policy. The policy pays due attention to what may be called **social forestry**. The policy lays down that tribals and other local people can get their basic domestic requirements of fuel wood, fodder, minor forest produce and construction timber from forests. Tribals will also be associated with the protection, regeneration and development of forests, and cooperatives run by them or by the Government will replace the present contractor system, which has resulted in unchecked devastation of reserved forests.

Second, major departure in the revised forest policy is with regard to meeting the demand for industrial materials. Realising the fact the uncontrolled expansion of forest-based industries would adversely affect the conservation objective, the revised policy has made the following stipulations (i) No forest-based industry, except in the small-scale and cottage sectors, would be permitted unless sustained availability of raw material was ensured; (ii) As far as possible, a forest-based industry should

produce its own raw material requirements; (iii) Natural forests would not be made available to industries for undertaking plantations and for other objectives; and (iv) Forest produce would not be supplied to industries at concessional rates.

The **Central Forestry Board's** decision made earlier in 1988, to stop all clear felling of forests will greatly strengthen the efforts to regenerate the forest wealth. However, it is not entirely clear how the Government will meet the needs of the existing wood-based industries without endangering reserved forest or depriving the poor of their rights over common lands by diverting them for monoculture plantations for industry as has been done in some States.

The initial results of the new policy have been quite encouraging. The fourth biennial review of the forest cover has shown that the forest cover has increased, although marginally.

Check Your Progress 2

- 1) Identify the different sources of water in India.
.....
.....
.....
- 2) What are the main river systems in India ?
.....
.....
.....
- 3) Mention four major advantages of forests in an economy.
.....
.....
.....
- 4) What are the basic differences in the National Forest Policy of 1952 and that of 1988?
.....
.....
.....
.....

8.6 MINERAL RESOURCES

The mineral resources of India encompass a wide range of products that are necessary for a modern developed economy. There are according to the **Geological Survey of India, 50 important minerals and 400 major sites where these minerals occur.** These can be divided into four categories as follows:

- i) minerals of which India's exportable surplus can dominate the world market; to this category belong iron-ore and mica;
- ii) minerals of which the exportable surplus forms an important factor; these include manganese ore, bauxite, gypsum and others;

iii) minerals in which it appears that the country is self-sufficient, like coal, sodium salts, glass sand, phosphates, bauxite, etc.; and

iv) minerals for which India has to depend largely or entirely on foreign markets like copper, nickel, petroleum, lead, zinc, tin, mercury, platinum, graphite, etc.

The various minerals can also be classified into three categories on the basis of their nature and end use. These three categories are:

- a) Fuels like coal, lignite, natural gas and petroleum;
- b) Metallic minerals like bauxite, iron-ore, manganese, etc.; and
- c) Non-metallic minerals like phosphorite, graphite, gypsum, limestone, mica etc.

The value of minerals production in India has increased considerably over the last five decades as can be seen from Table-2 below:

**Table 2: Value of Mineral Production
(Rs. Crore)**

Year	Value
1951	83.3
1961	81.2
1971	502.91
1975	227.4
1980	2310
1985	9122
1990	16456
1992-93	20180
1993-94	24554
1994-95	27940
1995-96	28350
1996-97	31,185

Source: India: Annual Reference Year Book.

As would be seen from Table-2, there has been a manifold increase in the production of minerals in the country. More important, in terms of value, among these are fuels, which group accounts for about 85 per cent of the total value of mineral production in the country. Next in importance are Metallic and Non-metallic minerals, each of which group accounts for about 6 to 7 per cent of the value of minerals production. Among the fuels, the more important are Coal and Petroleum; Coal alone accounting for more than 55 per cent of the total value of fuel minerals.

Minerals provide a base for the rapid industrialisation of the economy. The changeover to an open market economy has opened up further avenues for faster industrial growth and greater requirement of minerals. It is imperative, therefore, that proper attention is paid to their development. There are a few essential aspects that need to be worked into a proper mineral policy. **First**, the mineral resources are very unevenly distributed. The Great Plains of Northern Indian are almost entirely devoid of any known deposits of economic minerals. On the other hand, south Bihar and Orissa and areas on the north-eastern parts of peninsular India possess large concentration of mineral deposits accounting for nearly three-fourths of the country's coal deposits

and containing highly rich deposits of iron-ore, manganese, mica, bauxite, and radioactive minerals. Minerals deposits are also scattered over the rest of the peninsular India and in parts of Assam and Rajasthan. **Secondly**, the country is deficient in certain minerals like crude oil or petroleum; a large part of the present demand is being met by imports. In view of the rising prices of these minerals in international markets, it would be necessary, on the one hand, to curb their growing use in the economy, and, on the other hand, sustained efforts should be made to explore the domestic sources of supply of these minerals. **Thirdly**, there are minerals, which are lucrative foreign exchange earners. Efforts should be made to devise a suitable policy to have a proper utilisation of these minerals keeping in view the national interest. **Finally**, due to paucity of funds, the mining industry is mired in obsolete technology, now for decades.

8.6.1 New Mineral Policy

The National Mineral Policy was announced on August 9, 1990, and was further modified on March 5, 1993. The major objectives of the New policy are as follows: (i) to strike a balance between conservation and development ; (ii) to promote necessary linkages for smooth and uninterrupted development of the mineral industry to meet the needs of the country ; (iii) to minimise the adverse effects of mineral development on forests, environment and ecology through appropriate protective measures and ensure conduct of mining operations with due regard to the safety and health of all concerned; (iv) while planning development of mineral resources, to take into account national and strategic considerations and ensure their adequate supply and best use keeping in view present needs and future requirements; and (v) to ensure establishment of appropriate educational and training facilities for human resource development to meet the manpower requirements of the mineral industry.

Features: The major features of the New Policy are as follows:

- 1) The Government has thrown open the entire mining industry for private sector participation, barring uranium and mineral oil. The de-reserved areas now include the 13 minerals that had earlier been reserved for exclusive exploitation by the public sector. These are: iron ore, manganese, chrome, sulphur, gold, diamond, copper, lead zinc, molybdenum, tungsten, nickel and platinum.
- 2) The ceiling on foreign equity in the mining industry has been raised by providing for up to 50 per cent foreign equity participation in Indian companies engaged in mining activities.
- 3) The policy also permits minerals and metal processing units that wish to develop captive mines to secure assured supplies of raw materials to invite foreign equity to the extent already permitted to such processing units.
- 4) The Government would not allow strip mining in forest areas unless the companies undertook time-bound reclamation programmes.
- 5) No mining lease would be given to anyone without a proper mining plan including the environmental management plan approved and enforced by the statutory authorities.
- 6) Exploitation of sea bed mining in the Indian Ocean is not permitted.

8.6.2 New Economic Policy and Privatisation

With the onset of liberalization, the pressure to permit the private and foreign sector into all areas of mining has risen sharply. **The Mines and Minerals Regulation and**

Development Act (MMRD) specially debarred foreign nationals and companies from virtually all minerals. But this restriction came under fire because a number of foreign companies interested in setting up power plants want to develop coal mines merely to ensure regular supply. In response, the Government has amended the MMRD Act. It now permits entry to private capital, both domestic and foreign, in the field.

Check Your Progress 3

Tick (✓) the correct answer among the following:

- 1) India has a exportable surplus of:
 - a) Mica
 - b) Crude Oil
 - c) Gold
 - d) Copper

- 2) India is self-sufficient in following minerals:
 - a) Petroleum
 - b) Mercury
 - c) Bauxite
 - d) Tin

- 3) Tick the odd one out of the following:
 - a) bauxite
 - b) iron-ore
 - c) manganese
 - d) mica

- 4) Tick the odd one out of the following:
 - a) gypsum
 - b) copper
 - c) iron-ore
 - d) glass sand

8.7 ENERGY RESOURCES

The need for energy in a developing economy can hardly be over-emphasised. It is a basic input required to sustain economic growth and to provide basic amenities of life to the entire population of a country. It is energy, which is the dividing line between a subsistence economy and a highly developed economy. In the affluent United States, the per capita consumption of energy is nearly 40 times than in India. Empirically, it has been established that “inadequate supplies of energy can inhibit development and that assurance of an adequate supply and mix of energy inputs can be a great stimulus to development”.

Energy in India is produced from different sources. These sources can be classified into two groups: (i) **commercial sources**-like thermal power, hydel power, power from oil, gas, nuclear fuels, etc.; and (ii) **non-commercial sources** like firewood, dungcakes etc. Of the two sets of sources, commercial sources occupy a more prominent position.

8.7.1 Sources of Commercial Energy

A) Coal

Coal is the largest naturally occurring source of commercial energy in India and has been one of the principal sources of power production. Presently, coal-based **thermal power stations** contribute about 74.0 per cent of the total power generation. The energy policy of the country provides that to the extent practicable and economical, coal will be the principal source of commercial energy.

India's coal reserves are mainly clustered around belt extending over the western part of West Bengal, south Bihar, Orissa, north-eastern and central Madhya Pradesh, and the eastern fringe of Andhra Pradesh. There are also some scattered deposits in Assam. There has been a systematic attempt to assess reserves of coal. The latest estimates place the total resources at 193.8 billion tonnes and proven reserves at 64.9 billion tonnes. Of these, about 27 per cent are of **coking** variety and 73 per cent of non-coking coal, its use is being limited to metallurgical purposes. The **non-coking coal** available in the country is generally suitable for power generation.

The country has some lignite and tertiary coal deposits also. The total lignite reserves are estimated at about 21,000 million tonnes; the reserves of tertiary coal are estimated at about 900 million tonnes.

Coal production, which was around 33.9 million tonnes in 1950-51, increased to 295.9 million tonnes in 1997-98. The total requirement of coal is likely to increase to 400 million tonnes by 2000 A.D. It implies that more concerted efforts will be required to meet the increased requirement of coal a few years hence. The main problem, which is being faced by the coal industry at present, is **lack of suitable means of transportation**. Almost the entire amount of coal is being carried by the railways. Non-availability of railway wagons often leads to accumulation of stocks at pitheads and shortage in consumer areas. The transport planners will have to pay adequate attention to this aspect of the problem.

B) Oil (Petroleum)

The second half of the present century may well be called the oil-age. In 1950, the world oil consumption was only 650 million tonnes whereas by 1973 it had increased to nearly 3000 million tonnes. This trend in oil consumption was reversed in 1973 following an upward revision of crude prices by oil-producing countries. The demand for crude oil being inelastic but persistently increasing, a rise in its prices blew up what came to be known as an international oil crisis. India was no exception. Even since oil exploration work has been stepped up, an aggressive campaign has been mounted to discover oil and gas in the on-shore as well off-shore areas.

Reserves and Production: India's total proven reserves of crude oil are estimated at 993.0 million tonnes. These reserves are located in **Assam and Gujarat, Bombay High, Arunachal Pradesh and Tamil Nadu areas**. Bombay high off-shore accounting for about 70% of the country's total oil production has emerged as the leading centre. Off-shore oil is being produced at Bombay basin, Krishna-Godavari and Cauvery basins. Oil has also been discovered at a few other off-shore places. As a result of these successes, production of crude oil in India recorded a marked improvement during eighties; it slowed during early nineties but recovered much of the lost ground during 1994-95, although a clear upward trend is still far away, as would be seen from Table -3.

Table 3: Crude Oil Production
Million tonnes

Year	Output
1960-70	4517
1979-80	11770
1984-85	29000
1989-90	34090
1993-94	26400
1994-95	32200
1995-96	35200
1996-97	32900
1997-98	33900

Source: Economic Survey

C) Natural Gas

Natural gas has aptly been termed as the **Prince of Carbons**. It occurs either as **associated gas or free gas**. Associated gas is produced from underground reservoirs along with crude oil and the level of production depends entirely on the level of crude oil production. Contrary to that, free gas, though occurring in the underground reservoirs, is not associated with crude oil and can be produced as required. It has the advantage of convenience and efficiency in use and is environmentally benign.

Natural gas can be used for both domestic and industrial purposes. It finds expression in the fertiliser and petrochemical industries. While government policy in the past has favoured the reservation of natural gas for fertilisers, petrochemicals and other non-fuel uses, the picture on the supply side and in terms of the potential demand for natural gas has changed substantially in recent years.

Production and Consumption

In India, exploration for oil and gas was taken up first in 1955 after the ONGC was formed on a national scale. Substantial reserves of gas have been located in different parts of the country, more important among which identified are Cambay basin, Upper Assam, Bombay High, South basin and other areas of Indian sedimentary basin such as Krishna - Godavari, Jaisalmer, Tripura, Cachar, Bengal and the Himalayan foothills. The geological reserves of gas are being estimated at 1154 million tonnes (as oil equivalent) presently. The production of gas was somewhat slow in the past; it increased from 2.1 billion cubic metres in 1974-75 to a mere 2.8 billion metres in 1980-81, of which only 1.8 billion cubic metres was used. The rate of production and effective utilisation has, however, increased much faster since then. Total gross production increased to 24.80 billion cubic metres in 1997-98. In view of the increasing significance of gas in the energy scenario, the government has set up an organisation called the **Gas Authority of India Limited (GAIL)**, to look after the functions of processing, transportation and marketing of natural gas. The GAIL implemented the first, major high-pressure, cross country gas pipeline, called the HBJ project at an estimated cost of Rs.1700 crore. Three gas-based fertiliser plants along the pipeline have already gone on stream.

D) HYDRO-POWER

Hydro-electric power plays a major role in the field of power development in the country. Its present contribution to total electricity generation is about 20 per cent. The present knowledge of availability of hydro-electric resources in the country is based on the survey, which was conducted by the Central Water and Power Commission during the period 1953-59. These studies place the annual potential **economically utilisable hydro-power potential at 25.26 billion kwh**, corresponding to the annual energy of 221 billion kwh. The present level of hydro-electricity generation is about 72.6 billion kwh. On the basis of assessed energy potential, the scope for further development of hydro resources is considerable. This assessment would undergo a substantial upward revision if factors like advanced technology, development of high voltage transmission systems, changing economic pattern and an increase in cost of fuel generation from alternative sources are taken into consideration.

In view of the intrinsic advantages of hydro resources, they warrant development to the maximum extent possible. In areas where adequate hydel resources can not be developed, thermal generation will have to be resorted to.

E) NEW SOURCES

A few new sources of energy are **nuclear energy, gobar gas, wind power and geothermal energy**. Nuclear power generation was initiated in India in year 1969. Since then, India has acquired all the capabilities needed to pursue this vision, from basic research, plant designs, equipment manufacture, heavy water manufacture, fuel fabrication, plant construction, operation and control systems to fuel reprocessing. The energy potential available from the nuclear fuels is much more than that from the coal deposits.

Gobar gas plants were designed as early as 1962; but they acquired significance only after 1974-75. Presently, there are more than 17 lakh such plants in operation.

Solar energy is increasingly being used for varied purposes, such as water heating, distillation of water, timber seasoning, etc. Likewise, **wind pumps** and wind farm projects are being vigorously promoted in the wake of energy crisis that the country has been faced with. Efforts have been intensified to explore other supplementary sources. The more this trend catches on, the better would be India's power situation.

8.7.2 Sources of Non-Commercial Energy

Sources of non-commercial energy include fuel-wood, agricultural waste and animal dung. According to the **Working Group on Energy Policy**, the relative proportion of the three sources is 65 percent, 15 percent and 20 percent respectively. About 82 percent of non-commercial energy is used in the domestic sector. For the rural households, non-commercial energy accounts for more than 80 percent of the total energy consumption, for urban households the proportion is about 51 percent.

For the year 2000 AD, the estimates of fuel-wood demand are estimated at between 111 million tonnes and 173 million tonnes. The current annual availability is estimated to be in the range of 50 to 63 million tonnes. India is thus passing through a fuel-wood crisis. The worst affected are the poor.

1) Mention three sources of commercial energy in India.

.....

2) Mention three sources of non-commercial energy in India.

.....

3) Pick up the correct statements:

- a) India is self-sufficient in production of crude oil.
- b) India does not produce petroleum products.
- c) Natural gas has been described as “prince of Hydrocarbons”
- d) Solar energy is an important source of non-commercial energy in India

8.8. LET US SUM UP

We have reviewed above a brief profile of the major natural resources of India. Undoubtedly, India is blessed with a variety of resources. But the supply of these resources is to be viewed against their requirements on the one hand and possible utilisation within the given range of technology on the other. The potential available in the number of resources falls short of the requirements. Therefore, what is immediately required is that intensive surveys should be undertaken within the country to explore and to identify the hitherto unknown utilisable resources. This is true in the case of both renewable and non-renewable resources. This will require chalking out an integrated multi-pronged national policy. Secondly, equally important is the need to make an efficient use of available resources. This requires several interrelated steps: better technology, use of by-products, multipurpose use of resources, location of industries such that the transport cost of combining resources from different areas are minimized, etc. Thirdly, there is the need to take such conservation measures that sustain the output over a longer period. Finally, all the above considerations will call for an effective organisational set-up. In the interests of swift economic development these considerations can not be ignored.

8.9 KEY WORDS

Gross sown area: Net sown area plus the area, which is multi-cropped.

Ground water: Water available from such sources as wells, springing, etc.

Multi-cropped area: Land area where more than one crop are raised during a year.

Natural Resources: All the objects available in nature, either on soil or under the soil, for exploitation by labour to produce goods of value to mankind.

Net sown area: The size of land put under cultivation during a year.

Privatisation: A policy decision whereby private enterprise and capital can enter those areas of production which till had been reserved exclusively for the public sector.

Single-cropped area: Land area where only one crop is raised during a year.

Social Forestry: Implies rational afforestation and deforestation compatible with economic and social needs and values of community.

Surface Water: Water available from such sources as rivers, lakes, etc.

8.10 SOME USEFUL BOOKS

Bose Ashish (ed.): *Population in India's Development, 1947-2000.*

Government of India (1995): Ninth Five Year Plan 1997-2002. Planning Commission, New Delhi.

Dhingra Ishwar C.: *The Indian Economy* (Sultan Chand, New Delhi, 2000). Ch.4.
Government of India (1976): Report of the National Commission on Agriculture, Ministry of Agriculture, New Delhi.

Government of India (2000): Economic Survey (Annual), Deptt. Of Economic Affairs, Ministry of Finance, New Delhi.

World Bank (1993) : *Toward An Environmental Strategy for Asia.*

8.11 ANSWERS OR HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) See Sub-Section 8.3.1
- 2) See Sub-Section 8.3.2
- 3) See Sub-Section 8.3.3
- 4) See Sub-Section 8.3.4

Check Your Progress 2

- 1) Read introduction to Section 8.4
- 2) See Sub-Section 8.4.1
- 3) Identify the four points from those given in section 8.5
- 4) See Sub-section 8.5.3

Check Your Progress 3

- 1) a 2) c 3) d 4) d

Check Your Progress 4

- 1) a) coal, b) oil, and c) Natural gas.
- 2) i) fuel wood, ii) agricultural waste, and iii) animal dung.
- 3) c)

UNIT 9 DEMOGRAPHIC FEATURES

Structure

- 9.0 Objectives
- 9.1 Introduction
- 9.2 Vital Statistics in India
- 9.3 Role of Population in Economic Development
 - 9.3.1 Effect of Population Growth on Economic Development
 - 9.3.2 Effect of Economic Development on Population Growth
- 9.4 Trends in Population Growth
 - 9.4.1 Extent of Population Growth
 - 9.4.2 Three Phases of Demographic Transition
 - 9.4.3 Inter-State Differences
- 9.5 Rural-Urban Distribution and Growth
 - 9.5.1 Urbanisation Process
- 9.6 Sex and Age Composition
 - 9.6.1 Age Structure
 - 9.6.2 Sex Ratio
- 9.7 Dynamics of Population Growth
 - 9.7.1 Measures of Fertility
 - 9.7.2 Reasons for High Birth Rate
 - 9.7.3 Measures of Mortality
 - 9.7.4 Migration
- 9.8 Adverse Effects of High Population Growth Rate
- 9.9 India's Population Policy
 - 9.9.1 Clinical Approach
 - 9.9.2 Family Welfare Approach
 - 9.9.3 National Population Policy, 2000
 - 9.9.4 Assessment of Population Policy
- 9.10 Let Us Sum Up
- 9.11 Key Words
- 9.12 Some Useful Books
- 9.13 Answers/Hints to Check Your Progress Exercises

9.0 OBJECTIVES

After going through this unit you would be able to:

- Explain the role of population in economic development;
- Reproduce the trend of population growth in India;
- Summarise the composition of population in terms of sex and age;
- Explain the factors influencing population growth in India; and
- Describe the population policy in India.

9.1 INTRODUCTION

The development of any economy, to a significant extent, depends on the availability of natural and human resources. In the previous unit, we discussed the status of natural resources available in India. In this unit, we will focus on population or human beings as a resource or as input for the development of an economy. You might have noticed that population in a country performs two roles - first, it contributes an important input that is labour, in the production of goods and services; second, it is the ultimate consumer of goods and services produced.

The development of an economy depends upon the quality of human resource, that is the quality of population, it has. Size, growth rate and composition of population, migration, standard of living of people, etc., are some of the factors that influence the development pattern of a country.

In this unit, we will highlight some of these issues in Indian context. But before that let us look into the availability of data on vital statistics in India.

9.2 VITAL STATISTICS IN INDIA

Vital statistics means data on births and deaths. Availability of accurate data on these vital events is quite important for studying the features of population. In India, there are two important sources of vital data. One, the population census of India conducted every 10 years. The second is the vital registration system where every birth and death is recorded on a continuous basis.

The beginning of census taking in India can be traced back to 1872 when the results of censuses conducted for different parts of the country around that time were aggregated. A complete and synchronous (that means, at the same time) Census has been held in India since 1881 once in every 10 years. Thus, the 2001 census represents the 14th census of India and the 6th after Independence. The census is quite comprehensive covering the whole population of the country on a number of economic and social characteristics. The census is conducted by the census organisation, which has been functioning on a permanent basis. The results of the census are summarised in hundreds of tables published in a number of volumes. Thus, it becomes an important source of data on the Indian economy. The major limitation of the census data, however, is that it is not available for the inter-census years. Only we can have some estimates for the years between two censuses.

The other source of data is through vital registration system. As you may be aware, it is obligatory on the part of every citizen of India to report births and deaths in a family to the Registrar's office. However, many deaths and births remain unreported, as many do not realise the importance of such registrations. Thus, the data available through vital registration system in India is less than the actual (underestimate).

In order to provide reliable estimates of birth rates and death rates at state and national levels, the office of the Registrar General, India initiated the Sample Registration System (SRS) scheme in 1964-65 on pilot basis in a few states. SRS was extended to all the states from 1969-70. Under the SRS, a sample of the population (instead of the entire population, as is done in the census) is surveyed on a continuous basis. The SRS data is very helpful in forecasting future size, distribution and growth pattern of population.

9.3 ROLE OF POPULATION IN ECONOMIC DEVELOPMENT

There is close relationship between growth rate and composition of population and economic development of an economy. The relationship is two-way. It means growth rate of population affects economic development and, in turn, economic development influences growth rate of population of an economy.

9.3.1 Effect of Population Growth on Economic Development

As mentioned above population provides an important input, namely labour. Thus, we can say that greater the size of population, greater is the labour force. From

microeconomic theory we have learnt that as the level of labour input is increased in a firm, the level of output produced increases, provided marginal product of labour is positive. But law of diminishing returns operates and marginal product of labour could be negative after certain level. In such a situation application of more labour actually reduces the output. Thus a firm stops application of labour before its marginal product is zero. Now let us consider the repercussion of excess supply of labour for an economy.. Faster population growth over a limited period may help economic development by providing the necessary manpower, if the size of the population is much below the capacity based on natural resources. But, if the economy has a large size of population and is accompanied by high growth rate in population, economic development may get affected adversely.

There are two main channels through which population growth affects economic development. One, it **decreases rate of savings** and two, it **changes the composition of investment**.

A **higher rate** of growth in population reduces the rate of savings in the economy. With high birth rate and low mortality in the younger age group, the proportion of children in the economy goes up. Again, with increase in longevity, the proportion of aged people in the economy increases. The overall effect is a higher dependency ratio (that is the ratio of dependents or non-working population to working population). Since both dependents and working population must consume, a larger proportion of income is devoted towards consumption. Consequently savings rate declines.

With an increasing population, a share of investible resources has to be devoted towards basic necessities of life. For the additional people, minimum facilities like health care, education, housing, justice, law and order, etc. have to be provided. Very little is left for investment in production of goods. Thus, economic development gets slowed down.

High population growth also implies that a major part of the growth in national income is distributed over the additional population, and the growth rate in per capita income slows down. Suppose, an economy is growing at 5 percent per annum and population is increasing at 2.3 per cent per annum, then per capita income of people will increase at 2.7 percent per annum only. Had the growth rate of population been lower, say 1.5 percent, then per capita income would be growing at 3.5 percent per annum.

9.3.2 Effect of Economic Development on Population Growth

The above discussion shows that high population growth rate adversely affects economic development. However, the impact of economic development on birth rate is also not insignificant. It is observed world over that less developed economies are characterised by 'high population growth' and 'low level of economic development'. On the other hand, all developed countries are experiencing low population growth rate. In Table 9.1 you may notice that in developed countries like Japan and U. S. A. birth rate is much lower than developing economies like Uganda and Zimbabwe.

There are some evidences to show that higher level of per capita income and high literacy, particularly female literacy, are associated with low birth rate.

Table 9.1: Demographic Feature of Selected Countries (for the year 1997)

Country	Birth Rate (per 1000)	Death Rate (per 1000)	Natural Increase (percent)	Infant Mortality Rate*	Life Expectancy (in years)	Per Capita GNP** (in US \$)
1. India	29	10	1.9	75	59	340
2. Bangladesh	31	11	2.0	77	58	240
3. Pakistan	39	11	2.8	91	61	460
4. Uganda	51	22	2.9	81	41	240
5. Zimbabwe	40	14	2.7	53	51	540
6. Japan	10	7	0.2	4	80	39,640
7. U. S. A.	15	9	0.6	7.3	76	26,980
8. Germany	10	11	-0.1	5.1	77	27,510
9. Russia	9	14	-0.5	18	65	2,240
10. Australia	14	7	0.7	1.8	75	18,720

* Per thousand of live birth. ** For the year 1995 in US \$.

Source: Population Reference Bureau, 1997.

There are some other indicators of economic development, which have a negative relationship with birth rate, and size of family. It is seen, within a developing country itself, that urban areas have a lower birth rate and higher standard of living than rural areas. Also, higher income families have lesser number of children. Parents, with improved awareness, plan their family size so as to provide better education to children. These facts hint that reduction in birth rate is possible with economic development.

Empirical evidences lead to the view that economic development is a must for reduction in birth rate. Thus, a school of thought advocates that a country should concentrate on economic development. However, development of an economy is a long run process, and cannot be achieved in the short-run. Hence, a developing country must plan its population growth along with economic development. This is the reason why population policy finds an important place in the overall development process of an economy. This fact is recognised since the first Five Year Plan in India. We will discuss the approaches to the population policy pursued in India later, in Section 9.9.

9.4 TRENDS IN POPULATION GROWTH

Let us bring out the important features of population growth in India during the 20th century. We will highlight the growth in total population and factors influencing this growth pattern.

9.4.1 Extent of Population Growth

India is the second most populous country in the world and comes next only to China. The ten most populous countries in the world, in 1997, are China 1237 million, India 970 million, U.S.A. 268 million, Indonesia 204 million, Brazil 160 million, Russia 147 million, Pakistan 138 million, Japan 126 million, Bangladesh

122 million and Nigeria 111 million. According to the 1997 estimates, out of the world's total population of 5,840 million, India accounted for 970 million persons. The population of the world is distributed in an inhabited land area of 135.2 million square kilometers. While India accounts for only 2.4 per cent of this area, its share in the world's population is 16.6 per cent. Thus, the density of population in India is nearly 7 times the world's average density. On an average, there are 324 persons per square kilometer in India, according to the 2001 census.

Table 9.2: Population of India and its growth 1901-1991

Year	Total population (in million)	Total Increase during the Decade (in million)	Growth Rate (percent)	
			Decadal	Annual (Exponential)
1901	238.40	-	-	-
1911	252.09	13.69	5.75	0.56
1921	251.32	-0.77	-0.31	-0.03
1931	278.98	27.66	11.00	1.04
1941	318.66	39.68	14.22	1.33
1951	361.09	42.43	13.31	1.25
1961	439.23	78.15	21.51	1.96
1971	548.16	108.92	24.80	2.20
1981	683.33	135.17	24.66	2.22
1991	846.37	163.04	23.86	2.14
2001	1027.02	180.65	21.34	1.93

Source: Ninth Five Year Plan, 1992-97.

India's estimated population of 1027 million persons in 2001 was more than 4 times the size of the 1901 population of 238 million, and nearly 3 times the number of 1951, the year planning started in India. As you can see from Table 9.2, the population growth of India has shown three distinct phases. Up to 1921, there was a fluctuating growth. In fact, there was a decline in total population during the decade 1911-21. Widespread famine and epidemics were the main cause of such a decline. After 1921, up to 1951, there was a steady but low population growth. Population growth during the decade 1941-51 was 13.31 percent. However, beginning from 1951, there was a sudden increase in population growth. During the decade 1951-61, the population growth rate was 21.51 per cent. This went up to 24.8 per cent during 1961-71. Although there is a marginal decline in the rate of population growth since 1971, it still continues to be high. If the present rate continues, India's present population will be doubled in coming 36 years.

The increase in India's population by 181 million (from 846 million in 1991 to 1027 million in 2001) was more than the population of Brazil, the fifth most populous country in the world (see Section 9.4.1 for five most populous country in the world). Every year India adds to her a population, which is more than the total population of Australia.

There is much variation across in decadal growth rate in population. Bihar has witnessed the highest rate of population growth during the decade 1991-2001 while Kerala has experienced the lowest at 9.42%. Some of the high growth states are Bihar, Rajasthan and Haryana. On the other hand low growth states are Kerala (9.42%), Tamil Nadu (11.19%) and Andhra Pradesh (13.86%).

9.4.2 Three Phases of Demographic Transition

Historical evidence from presently developed countries indicates that an economy has to pass through three stages of demographic transition. They are:

- 1) High birth and high death rates
- 2) High birth and low death rates
- 3) Low birth and low death rates

In the first stage, which coincides with very low level of development, the birth rate is quite high. At the same time, the death rate is also quite high. As a result, the population growth rate (i.e., birth rate minus death rate) is very low. In India we see that till 1921, population growth rate was low even though both birth rate and death rate were high. Thus, the period before 1921 can be considered as the *first stage of demographic transition* in case of India.

As an economy develops, there is an improvement in the standard of living. People get better nutrition, living place, work condition and sanitation. Also, more resources are diverted towards establishment of hospitals and availability of medicines. As a consequence, quality of health improves and death rates decline. However, birth rate is not influenced as quickly as death rate. Birth rate, to some extent, depends on another set of variables such as family expectations, awareness, values and culture, which require a longer time period to change. The result is high population growth rate, which is the *second stage of demographic transition*. In fact, this is the phase of population explosion. A glance at Table 9.2 will show that India is passing through this phase at present. The death rate has declined while birth rate is still high.

The *third stage of demographic transition* is marked by low birth rate and low death rate and the growth rate of population again slows down. As an economy proceeds on its development path, there is increased standard of living, high female literacy, high mobility of people, increase in cost of rearing a child, participation of women in workforce, increase in the age of marriage, adoption of birth control devices, etc. These are some of the factors, which are supposed to bring down birth rate. Most of the developed economies have reached the third stage of demographic transition. Some parts of India, such as Kerala, can be considered to have reached this stage of demographic transition.

9.4.3 Inter-State Differences

As you know, India is a vast country. There are marked differences between states in terms of population density, birth rate, death rate, life expectancy, etc. Thus, it would be useful if we analyse the population growth patterns in various states. Table 9.3 presents data on some important population characteristics at the state level.

In the Table 9.3 given below you can see that most of the states have witnessed lower increase in population (in percentage term) during 1981-91 compared to the previous decade. However, there were some states where the decadal increase during 1981-91 was higher than that in the previous decade. These states are Andhra Pradesh in the South, Madhya Pradesh in the Central, West Bengal in the East, Maharashtra in the West, and Assam, Arunachal Pradesh, Nagaland and Tripura in the North-Eastern region. In some of the major states, the decline has been substantial, for example, Gujarat, Karnataka, Kerala and Rajasthan.

Table 9.3 : State - Wise Distribution of Population and Vital Rates

Sl. No.	State	Decadal variation 1971-81(%)	Decadal variation 1981-91(%)	Population 1991 (in million)	Crude Birth Rate (1996)	Crude Death Rate (1996)	Infant Mortality Rate (1996)	% Urban Area (1991)	Total Fertility Rate (1991)	Year by which TFR of 2.1 will be achieved	Life Expectancy in year (1992)
1.	Andhra Pradesh	23.10	23.82	66.30	22.7	8.3	66	26.84	3.00	2002	60.6
2.	Arunachal Pradesh	35.15	35.86	0.86	21.9	5.6	61	-	-	-	-
3.	Assam	23.36	23.58	22.29	27.7	9.5	75	11.08	3.50	2015	54.9
4.	Bihar	24.06	23.49	86.34	32.1	10.2	72	13.17	4.40	2039	58.5
5.	Goa	26.74	15.96	1.17	14.1	5.8	13	-	-	-	-
6.	Gujarat	27.67	20.80	41.17	25.5	7.6	62	34.40	3.10	2014	60.1
7.	Haryana	28.75	26.28	16.32	28.8	8.1	68	24.79	4.00	2025	62.9
8.	Himachal Pradesh	23.71	19.39	5.11	23.0	8.0	62	8.70	-	-	63.6
9.	Jammu & Kashmir	29.69	28.92	7.72	-	-	-	23.83	-	-	-
10.	Karnataka	26.75	20.69	44.82	23.0	7.6	53	30.91	3.10	2006	61.9
11.	Kerala	19.24	13.98	29.01	17.8	6.2	13	26.44	1.80	1988	72.0
12.	Madhya Pradesh	25.27	26.75	66.14	32.4	11.1	97	23.21	4.60	2060	54.0
13.	Maharashtra	24.54	25.36	78.71	23.2	7.4	48	38.73	3.00	2008	64.2
14.	Manipur	32.46	28.56	1.83	19.4	5.7	27	-	-	-	-
15.	Meghalaya	32.04	31.80	1.76	30.4	8.9	45	-	-	-	-
16.	Mizoram	48.55	38.98	0.67	-	-	-	-	-	-	-
17.	Nagaland	50.05	56.86	1.22	-	-	6	-	-	-	-
18.	Orissa	20.17	19.50	31.51	26.8	10.7	95	13.43	3.30	2010	55.5
19.	Punjab	23.89	2.26	2.19	23.5	7.5	52	29.73	3.10	2019	66.4
20.	Rajasthan	28.07	43.88	32.3	9.1	86	22.88	4.60	2084	58.0	-
21.	Sikkim	50.77	27.57	0.40	20.0	6.5	47	-	-	-	-
22.	Tamil Nadu	17.50	14.94	55.64	19.2	7.9	54	34.20	2.30	1993	64.2
23.	Tripura	31.92	33.69	2.74	18.3	65	45	-	-	-	-
24.	Uttar Pradesh	25.49	25.16	138.76	34.0	10.2	85	19.89	5.10	2100	55.9
25.	West Bengal	23.17	24.55	67.98	22.8	7.8	55	27.39	3.20	2009	61.5

There is wide difference in terms of birth rate among states. While birth rate continues to be as high as 34.80 per thousand of population in Madhya Pradesh and Rajasthan, it has declined to a level of 17.70 in Kerala and 20.70 in Tamil Nadu. **Infant mortality rate (IMR)** (it is the number of children who die within one year of age per thousand live births) is quite high in Orissa (95), Madhya Pradesh (97), Rajasthan (86) and Uttar Pradesh (85). **Life expectancy** (which is a measure of average life span of people) is also quite low in these three states. Note that these three are amongst the poorer states in India.

Generally it is seen that in a majority of states with high population growth rates, the performance in the social and economic sector has been poor. Illiteracy, poverty and poor development seem to co-exist and reinforce each other in these states.

9.5 RURAL-URBAN DISTRIBUTION AND GROWTH

Table 9.4 presents the rural-urban distribution of India's population from the beginning of the present century. In 1901, only 10.8 per cent people lived in urban areas. The proportion declined slightly to 10.3 per cent in 1911, after which it increased steadily, and rose to 25.7 per cent in 1991. This increase in percentage of urban population over a period of seven decades seems modest when compared with the urbanisation rates of many developing countries. However, if seen in absolute numbers, the urban population increased from 25.8 million in 1901 to 217.1 million in 1991, which is not small by any standard. As per projections, India's urban population comprises 26 percent of the total for the year 1997. Thus, in India 252 million persons (in 1997) reside in urban areas. This population is much larger than the total population of any country except China and USA.

Table 9.4: Rural-Urban Population Distribution

Year	Total Population			Percentage		Growth Rate (percent)	
	Total	Rural	Urban	Rural	Urban	Rural	Urban
1901	238.4	212.6	25.8	89.2	10.8		
1911	252.1	226.2	25.9	89.7	10.3	0.62	0.04
1921	251.3	223.2	28.1	88.8	11.2	0.13	0.82
1931	279.0	245.5	33.5	88.0	12.0	0.95	1.76
1941	318.7	274.5	44.2	86.2	13.8	1.12	2.99
1951	361.1	298.6	62.4	82.7	17.3	0.84	3.45
1961	439.2	360.3	78.9	82.0	18.0	1.88	2.35
1971	548.2	439.1	109.1	80.1	19.9	1.98	3.24
1981	683.3	523.8	159.5	76.7	23.3	1.78	3.87
1991	844.3	627.2	217.1	74.3	25.7	1.82	3.13

9.5.1 Urbanisation Process

The increase in urban population can take place in the following ways:

- i) natural increase (i. e., birth minus death) of the urban population
- ii) migration into urban areas from rural areas
- iii) establishment of new urban colonies (industrial townships, for example)
- iv) transformation of rural areas into urban areas.

While the first two reasons add to the existing population in the existing cities and towns, the latter two reasons add to the number of urban places.

It is seen that percentage of urban areas has increased over time because of the above reasons. As you see from Table 9.4, in case of India, the growth rate of the urban population has been higher than that of rural population since 1911. Secondly, the rate of growth of the urban population has increased over time.

Urbanisation is considered to be good because of higher per capita income, developed infrastructure, awareness, and overall economic development compared to its rural counterpart. If urbanisation can be considered as a contributing factor to modernisation and social change, a higher proportion of urban population should lead to somewhat greater decline in fertility.

However, there is a growing concentration of urban population in larger towns. The population in Class I cities has continued to increase at faster rate (47 percent during 1981-91 compared to 35 per cent for all urban areas). This is a matter of concern because land is a major constraint in mega and metro cities. The scarcity of land impedes development works. The key concern in urban areas is the growing gap between demand and supply of basic facilities like houses, roads, electricity, water, public transport, etc.

Looking back at Table 9.3, you can observe that there is a considerable variations in the level of urbanisation across states. Among the major states Maharashtra is the most urbanised state with 38.7 percent followed by 34.4 per cent in Gujarat and 34.2 per cent in Tamil Nadu. Urbanisation is lowest in Himachal Pradesh with 8.7 per cent population residing in urban areas. A certain degree of historical development in the pattern of establishment of industries, availability of raw materials, development of transport systems, etc., have largely contributed to the observed pattern of urbanisation of different states.

Check Your Progress 1

- 1) Tick mark (✓) the correct answer in the following statements:
 - a) The second most populous country in the world is:
 - i) China, ii) Russia, iii) India, iv) Japan
 - b) India's population increased by million between 1991 to 2001.
 - i) 210, ii) 181, iii) 112, iv) 161
 - c) At the turn of the century in 1901, India's urban population comprised per cent.
 - i) 10.8, ii) 13.8, iii) 5.0, iv) 18.0, v) 7.2
-
-
-
-
-

9.6 SEX AND AGE COMPOSITION

We need to study the sex and age composition of population because these two are basic demographic determinants of a nation's manpower supply. They also influence the pattern of goods and services demanded in the economy. For example, the age

of school going children is an important factor to plan the additional need of schools, school buildings, teachers, etc. The sizes of the school going population, school enrollment, etc., are resultants of particular sex and age structure.

The sex-age structure of a population at any time is the result of past trends in fertility, mortality and migration.

9.6.1 Age Structure

Populations are generally classified as young or old according to their age structure. A *young population* is one, which has a relatively higher proportion of children, adolescents, and young adults than aged persons. In contrast, an old population has relatively high proportion of middle aged and aged people.

Table 9.5: Age Distribution of Population in India, 1911-1996 (in percent)

Year	Sex	Age Groups			
		0-14	15-44	45-59	60+
1911	M	38.8	46.5	9.9	4.8
	F	38.1	46.9	9.4	5.6
1921	M	39.4	45.5	10.1	5.0
	F	39.0	46.0	9.5	5.5
1931	M	40.0	46.2	9.9	3.9
	F	40.1	46.4	9.4	4.1
1941	M	38.1	46.1	10.9	4.9
	F	38.4	46.1	10.6	4.9
1951	M	37.1	46.3	11.1	5.5
	F	37.9	45.7	10.6	5.8
1961	M	40.9	43.0	10.6	5.5
	F	41.2	43.3	9.7	5.8
1971	M	41.9	41.5	10.7	5.9
	F	41.9	42.4	9.7	6.0
1981	M	39.6	43.2	11.0	6.1
	F	39.8	43.5	10.4	6.3
1996	M	37.7	44.8	10.9	6.7
	F	37.8	46.2	10.4	6.7

India's population has a young age structure where nearly 38 per cent of the people are below the age of 15 and only 6 to 7 per cent are 60 years old or older

Table 9.5 gives the age distribution in India during the period 1911-96 for four broad age groups: 0-14, 15-44, 45-59 and above 60 years. It shows that the proportion of children is quite high in India.

The high proportion of children has resulted in an adverse dependency ratio. For example, the proportion of children (below the age of 15) to working population (between the age 15 and 60) comes to 73 per cent in India in 1981 and 67percent in the 1996. In developed countries this proportion is generally found between 35 to 40 per cent. In simple terms a high dependency ratio would imply relatively higher number of consumers than workers. A high dependency ratio tends to reduce saving and investment and inhibits the rate of economic and social development as a large proportion of scarce resources are diverted towards consumption. Also, an increasingly large number of persons continue to enter the working ages every year, swelling the ranks of the unemployed.

9.6.2 Sex-Ratio

Sex ratio is defined as *number of females per 1000 males*. Generally it is seen that the males outnumber females at younger ages because biologically more male babies are born than female babies (between 103 to 107 males per 100 females) in almost every society of the world. But female babies have a higher survival rate. Because of this, females outnumber the males from about the age of 20-25 onwards. But the overall effect is that the number of males and females should be equal in a population. In developed countries, the number of females is more than the number of males. In contrast to this, as Table 9.6 shows, India's sex ratio has been unfavourable to females. The number of female has gradually decreased over time.

Table 9.6: Sex Ratio in India, 1901 - 1991

Year	1901	1911	1921	1931	1941	1951	1961	1971	1981	1991	2001
Sex Ratio	972	964	955	950	945	946	941	930	9634	927	933

This picture of sex ratio of India's population is very different from that in the developed countries and a majority of the developing countries. This is, perhaps, mainly due to the neglect of female babies and young girls (both in terms of medical care and nutrition) and has been so even after general improvement in the availability of medical facilities in both rural and urban areas and improvement in living conditions.

Some of the states, particularly Kerala has more females than males. This is perhaps due to better socio-economic development of the state and high female literacy. Kerala has achieved a literacy rate of 91 per cent as per 2001 census. On the other hand, Bihar, which has registered the highest population growth rate, has literacy as low as 47 per cent. Recently concerted efforts are being made to provide equal socio-economic status to women. Empowerment of Women (through reservation in jobs, legislature, and other facilities) is stated to be one of the primary objectives of the Ninth Plan.

Check Your Progress 2

1) List out the adverse effects of a high dependency ratio.

.....

2) i) Why is the sex ratio of a population generally favourable to females?

ii) What is responsible for a high proportion of children below the age of 15?

.....

.....

.....

3) i) When do we call a population "young"?

ii) When do we consider a population "old"?

.....

.....

.....

9.7 DYNAMICS OF POPULATION GROWTH

After examining the population growth pattern, distribution, sex and age composition and economic characteristics in the earlier sections, we would like to discuss the dynamics of population growth through such factors as fertility, mortality and migration, which affect the size and composition of the population.

9.7.1 Measures of Fertility

Fertility refers to the actual performance of women in bearing children during the childbearing ages. There are various concepts to measure fertility. We will discuss some important measures below.

Crude Birth Rate

Conventionally fertility is measured by crude birth rate (CBR), which is defined as follows:

$$\text{CBR} = \frac{\text{Number of live births in a calendar year in a given geographical area}}{\text{Mid - year population of that area}} \times 1000$$

In the above definition of CBR, the numerator consists of *live births* only. This is because only live births affect the size of population of any given area. There are always certain proportions of *still births* in a population, but they are excluded from the computation of CBR.

In the denominator, total population is taken at the mid-point of the year because the population is continuously changing by births, deaths and migration. If we take the population at the beginning of the year in the denominator it will be a little less than the actual and the CBR will accordingly be high. In contrast, if we take the population at the end of the year, it will be a little more and the CBR will be lower than the actual. Hence, we divide the number of live births by the mid year population which gives the average picture.

According to the convention, we multiply the ratio by 1,000 because in any population, the maximum number of births in a year for every 1,000 persons does not exceed 60 and has generally not been less than 10. If we have the rate per 1,000 persons, we can talk in whole numbers; but if we multiply the figures by 100 instead of 1,000 the rate would become one-tenth and use of decimal point would become necessary.

The above measure of CBR gives a rough idea of fertility rate but it is inappropriate because its denominator consists of all persons of both sexes, of all ages. In practice, it is the women in childbearing ages (from 15 years to 45 years) that can produce children. Moreover, within the reproductive age child bearing capacity varies across age groups. Thus a more refined measure of fertility is, therefore, age specific fertility rate, which is explained below.

Age Specific Fertility Rate

The fertility rate computed on the basis of specifications with respect to age is called *age specific fertility rates* (age-SFR). Age-SFR is usually found out for a particular age group. Suppose, we want to find out the age-SFR for the state of Orissa for the year 1997 for the age group 19-24. What we do is to divide the total *female population* of Orissa in 1997 into different age groups, e.g., 15-19, 20-24, etc. Next, in the age

group 19-24, in Orissa, we find out the number of females. Third step is to find out the number of live births that has taken place during 1997 in this age group. Finally, we divide the total number of births by total female in 19-24 age group and multiply by 1000. In a similar manner, we can find out age-SFR for any state or for India, for any age group.

Age-SFRs point out the contributions of each age group to population growth rate in the country.

Total Fertility Rate (TFR)

TFR is a more practical measure of population growth. This is obtained by combining the age-SFRs in different age groups within the reproductive age.

One of the objectives of population policy has been to bring in stability (i.e., neither increase nor decrease in the size) to the level of population. Such a stability is possible when Net Reproduction Rate reaches unity (NRR=1). In recent years, this target has been changed and objective has been defined as a TFR of 2.1 at the state level. This is the reason why we found it important to include TFR figures for the states in Table 9.3. From the TFR, it is possible to predict the year when a TFR=2.1 will be achieved for different states. In fact, states of Kerala and Tamil Nadu have already achieved it, whereas the states of Uttar Pradesh and Madhya Pradesh are quite far from it.

Fertility Trend in India

Table 9.7 below depicts the fertility trend in India over the century. As you see, there has been a decline in birth rate in India.

Table 9.7: Average Decadal Birth and Death Rates in India, 1901-1991

Decade	Birth rate	Death Rate
1901-11	49.2	42.6
1911-21	48.1	48.6
1921-31	46.2	36.3
1931-41	45.2	31.2
1941-51	39.9	27.4
1951-61	41.7	22.8
1961-71	41.1	19.2
1971-81	37.2	15.0
1981-91	32.5	11.4

Looking back at Table 9.3 you can ascertain the state-wise variation in birth rates. It has remained high (well above the national average) in Uttar Pradesh, Bihar, Rajasthan and Madhya Pradesh. In contrast, birth rates have been comparatively low in Andhra Pradesh, Kerala, Tamil Nadu and West Bengal.

9.7.2 Reasons for High Birth Rate

The high birthrate realised in India arises out of many reasons. The prominent among these are:

- The infant mortality rate in India is quite high (see Table 9.1). As a result, the survival rate of children is comparatively low. Thus parents reproduce more children with the hope that some of them will survive.
- Traditionally parents in India have shown a preference for male child, so that the son will provide security during old age. Thus parents wait for a male child even after one or two girl children.
- Children provide an economic advantage to their parents. Some studies, however, contrast this with the view that children provide emotional advantage. It is seen that children in agricultural and business families help their parents in household activities and family farm or business at an earlier age thereby generating additional income.
- There is a lack of awareness among parents about the clinical facilities available to control or terminate birth. Some consider it a taboo.
- The age of marriage is low in India thereby providing parents a longer reproductive period.

As discussed in Section 9.3, female literacy has a positive impact on reducing birth rate. Generally females particularly working in the formal sector, have to plan the timing and number of children. The expectation of parents to bring up their children with good education and other facilities have also helped plan the number of children.

9.7.3 Measures of Mortality

As human beings are mortal, they have to die at some age or other. Death means permanent extinction of all signs of life from a human body after a live birth has taken place. The process of death keeps the population of a given area in some sort of a balance. This happens even when population may be growing in numbers. In order to measure death rates in a society demographers have come up with several measures. We discuss some of these measures below.

Crude Death Rate

The crude death rate (CDR), like the CBR, is perhaps the most commonly used measure of mortality. It is defined as:

$$\text{CDR} = \frac{\text{Total number of deaths in a calendar year in a given geographical area}}{\text{Mid - year population of that area}} \times 1000$$

The reasons for using mid-year population in the denominator and for multiplying the ratio by 1000 are the same as explained while defining CBR.

The difference between CBR and CDR is called natural rate of increase of a population. This tells us the rate at which the population of any particular area is growing in a natural manner.

Infant mortality Rate

Generally children are put to greater risk of death during the first year of life. In the absence of proper health facilities such a risk is higher. Thus the percentage death of children within one year of their life is an important indicator judging the health care in a society. Infant mortality rate (IMR) is one such measure. It is defined as:

$$\text{IMR} = \frac{\text{Number of children who die within one year of life}}{\text{Number of live births}} \times 1000$$

The implication of IMR is as follows: If 1000 children were born on a day, IMR would indicate the number of children, who are likely to die before completion of first birth day. It has been a concerted effort of the government to reduce IMR at the national and regional levels. As you can see from Table 9.3 IMR is quite high in states of Orissa, Madhya Pradesh and Rajasthan. But the states of Kerala and Goa have been quite successful to bring it down to the level of 13.

Expectation of Life

Demographers estimate *expectation of life at birth* (or Life Expectancy) to understand the mortality pattern of different countries. It gives an idea of the average life span of people. It is measured in years. Life expectancy is estimated for male and female separately and for different states. In fact, expectation of life at birth has an inverse relationship with death rate. As you can see from Table 9.3, states with higher death rate have a lower life expectancy and vice versa.

Mortality trend in India

Table 9.7 gives the crude death rate in India during 1901-91. You can see that death rate in India up to 1921 was very high. This was mainly due to large scale famines and epidemics. Health facilities and access to medicines were also not so good. The development of a better communication system after 1921 and more organised efforts to control epidemics like small pox, cholera and plague, and diseases like malaria, helped in the decline in CDR. We see an unmistakably declining trend in our CDR during the past fifty years.

We had mentioned earlier that there is much variation in death rates across states. If you look back at Table 9.3, you can point out that death rate is much higher, above the national average, in Bihar, Madhya Pradesh, Orissa and Uttar Pradesh compared to death rate in Kerala.

9.7.4 Migration

Migration can be either from one country to another (international migration) or from one state/region to another (internal migration). Migration can be ascertained through change in residence. Migration affects certain population characteristics such as sex composition, age structure and occupational structure. As migration is a continuous process like events of birth and death, it is necessary to record all permanent or semi-permanent changes in residence.

In the absence of continuous recording of the details of migration, estimates of in and out migration are obtained by asking questions in a population census about 'place of birth' and 'place of last residence' or both. However, this definition of migration comprises a substantial portion of female migration due to marriage. There are three other factors, namely, *employment, income and rapid population growth* that determine the extent and pattern of migration flows. Migrants move out of areas where employment opportunities are stagnant, where income is low and where rate of population growth is very high. Conversely, they are attracted to areas of new industrial development and higher per capita income.

The available data from censuses show that both internal and international migration has been negligible in India. However, this may not be so in the future if there is further widening of disparity between states in terms of economic growth and employment opportunities. Because of the low income, poor employment opportunities and low literacy, there may be an increasing migration from rural to urban areas and

from poorer states to richer states, particularly of unskilled labour. You might have read newspaper reports on migration of agricultural labourers from poorer states to richer states. In the short run, such migration may assist the migrants in overcoming their economic problems. But in the long run, the migrant workers may face problems in securing shelter, education and health care.

9.8 ADVERSE EFFECTS OF HIGH POPULATION GROWTH RATE

As mentioned in the beginning (Sub-section 9.3.1), a high growth rate in population has an adverse effect on economic development.

- During the first 40 years of planning (1950-90) growth rate in GDP was around 4.0 percent per annum. However, the population growth rate was about 2 percent per annum. The outcome of such a feature is that the per capita GDP increased at a rate of 2.0 percent per annum only. Had population growth rate been lower, per capita income would have increased at a higher rate.
- The food production in India has gone up from 50.8 million tonnes in 1950-51 to 198 million tonnes in 1996-97, nearly 4 times. However, the per capita availability of food grains has increased only by 46 percent, from 140 kilogram in 1950-51 to 205 kilogram, during the same period.
- There is heavy pressure on existing infrastructure like health, education, electricity, water and housing. In order to maintain these facilities at the existing level, the government has to incur huge investments. Had population growth rate been lower, this expenditure could have been diverted towards directly productive activities.

Check Your Progress 3

1) Why is the ratio in the definition of CBR or CDR multiplied by 1000?

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2) Why do demographers consider TFR as a better measure of fertility than CBR?

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3) Name two states in India, which have experienced low fertility rate, and two states, which have experienced high fertility rate.

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9.9 INDIA'S POPULATION POLICY

While discussing the influence of high growth rate of population on economic development (Section 9.3) we stressed the need for a population policy to bring down birth rate. Soon after Independence, the Government of India appointed the Planning Commission to formulate a plan for most effective and balanced utilisation

of natural resources for economic development. While formulating the First Five Year Plan, the Planning Commission recognised the need of a population policy towards restraining population growth rate in relation to economic development. The objective of such a policy was to raise the living standards of people and improvement in health, particularly of mothers and children. In that plan, a provision of Rs.65 lakh was made for the family planning programmes and to discover effective techniques of family limitation and to suggest methods by which knowledge of the techniques could be widely disseminated. Thus, India became the first country in the world to formulate and implement the National Family Planning Programme in 1952.

9.9.1 Clinical Approach

During the first four Five Year Plans, the approach to family planning was mostly clinic-based. There was sharp shortage of infrastructure and manpower for improving health and family welfare services. The government put emphasis on creation of necessary infrastructure for provision of health care.

By the year 1975, the Government recognised that in order to promote family planning at a faster pace, it would be necessary to involve itself more directly. A comprehensive "National Population Policy" was, therefore, declared in 1976. This policy statement introduced a series of fundamental measures so as to achieve the planned target of reducing the birth rate from an estimated 35 per thousand in the beginning of the Fifth Plan to 25 per thousand at the end of the Sixth Plan. These measures included i) setting aside 8 per cent of central assistance to state plans specifically against performance in family planning, ii) freezing of the representation in the central and state legislatures on the basis of the 1971 census population for the next 25 years, iii) raising the age at marriage to 18 years for girls and 21 years for boys, iv) higher grades monetary compensation against sterilisation, v) higher priority for girls' education upto the middle level and vi) child nutrition.

A population policy consists of both the formulation and articulation of population objective that maximise the public welfare and levels of living. This involves the commitment and manipulation of resources in pursuit of these population objectives. One may also say that population policies are measures and programmes designed to contribute to the achievement of economic, social, demographic, political and other collective goals. This is possible through affecting critical demographic variables, namely, the size and growth of population, its geographic distribution (national or international) and its demographic characteristics. It can be easily seen that the National Population Policy Statement of 1976 covered these aspects quite comprehensively.

Special measures were adopted by several states to make this programme a success by introducing incentives and disincentives to encourage the people and at least the state and central government employees to go in for sterilisation. There was, however, severe criticism of the compulsion aspect in the family planning programme during 1976, and the same went into disrepute, and its achievement fell down very sharply during 1977 and 1979.

The country was not prepared for harshness and compulsion. There was a change in political power at the Centre and in several states in 1977. While the new Government stressed the importance of limiting population growth for the country, it emphasised the voluntary nature of the family planning programme.

9.9.2 Family Welfare Approach

Since 1977, the earlier approach of family planning has been geared towards development based family welfare approach. In Sub-section 9.3.1 we have discussed the two-way relationship between economic development and population growth rate. To repeat, economic development (mainly through female literacy, low infant mortality, maternal health and awareness) helps in reducing birth rate. Let us look into the routes through which female literacy reduces birth rate. It is generally seen that literate women tend to marry later than illiterate women do. Attendance at school and colleges thus increases age of marriage. It is projected further that increase in age of marriage has an inverse relationship with number of children. Secondly, literate women are more likely to enroll their children in schools. You may have observed that in many families, children do not go to school or drop out of school and start earning for the family (the case of child labour). School attendance tends to reduce labour value of children. Consequently, there is a reduction in the motivation to have more children. Thirdly, literate women are more aware of health and hygiene. So, more of their children survive, thus reducing the number of births to attain a couple's desired family size. They are also more aware of family planning and therefore, are more likely to use such devices. Finally, educated women are likely to have other interests apart from family and child rearing (such as a job). These interests compete with children for time and attention. Hence, this also tends to have a depressing effect on number of children.

The government has put emphasis on these factors apart from adoption of contraceptives. Some of the premises on which the family welfare programme is based are as follows:

- i) Acceptance of family welfare is voluntary without involving any coercion.
- ii) The role of the government is supposed to be creation of a favourable environment for people to adopt small family norm. This is done by spreading awareness, information and education of people. The government has put emphasis on easy and convenient availability of family planning aids and welfare services, like infrastructure, essential drugs, vaccines and contraceptives. The government has been giving incentives to people for adopting family planning.
- iii) The family welfare programme has integrated maternal and child health (MCH) services. The MCH is being implemented through countrywide network of primary health centres and supporting institutions.

9.9.3 National Population Policy, 2000

Recently the government has announced National Population Policy, 2000 which emphasises on adequate provision of contraception facilities, health care infrastructure, health personnel and integrated service delivery. While the long-term objective of the policy is to stabilise population of the country by the year 2045, the medium-term objective is to bring down total fertility rate (TFR) to replacement level by 2001.

In order to achieve these objectives it is planned to encourage small family norm, particularly, two children per couple. It adopts a policy of rewarding Panchayats and Zila Parishads for such encouragements. On the other hand, it proposes strong action against child marriage. A National Commission on Population is to be set up with the Prime Minister as its Chairperson.

The National Population Policy 2000 extends the moderate stand taken earlier by the government. It does not spell out steps to be taken against individuals or non-fulfilment of policy guidelines.

9.9.4 Assessment of Population Policy

In spite of the massive efforts by the government, the performance of the family welfare programme has not been satisfactory. Right from the First Five Year Plan the set goals have not been realised in time. This has resulted in the re-setting of the goals again and again. For example, let us consider the targets set in Plan documents regarding crude birth rate (CBR). In 1962 the target was to achieve a CBR of 25 by the year 1973. By the year 1968 it was further revised to achieving a CBR of 23 by 1978-79. However, the actual CBR in 1973 was 34.6. In 1974 (beginning of Fifth Plan) the planners moderated the target to achieving a CBR of 30 by the year 1979 and 25 by the year 1983-84. However, the CBR in 1985 was 32.9, much higher than the target. In 1998, the target set by the government is to bring down the TFR to 2.1 by the year 2026 from the present level of 3.60.

There are quite a few reasons for the poor performance of family welfare programme.

- The programme has remained a government programme, the community's involvement and participation being marginal.
- Regional variations and diversities are not generally taken into consideration. Health infrastructure is weak in many states, which has contributed towards poor implementation of the programme.
- There is a shortage of contraceptive devices in the country, which has contributed to high birth rate. About 20 percent of the population increase is due to unwanted births in the country. Many parents do not want a child, but births take place because of lack of awareness or unavailability of contraceptive measures.
- The monitoring mechanism under the programme has been reduced to a routine target reporting by officials. As a result, identifying the loopholes in the programme and rectifying it, has not been possible.

The Ninth Plan has addressed itself to these programmes. With death rate having reached a plateau, an accelerated decline in birth rate can present a feasible solution to the growing burden of increasing numbers.

Check Your Progress 4

- 1) Why is India known to be the first country in the world to have "population growth control" programme?

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- 2) List out the major aspects of the "National Population Policy" statement of 1976.

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9.10 LET US SUM UP

In this unit we started with a discussion of the inter-relationship of population size and growth and economic development, and indicated as to when faster population growth may help economic development and when it may impede the same. After

indicating that India's current population size and growth rate impede economic development in the country, the role of urbanisation, particularly its growing pace, in economic development, was emphasised.

After a period of fluctuating growth of India's population upto 1921, the same began to increase gradually after 1921. The period since Independence has witnessed a very high population growth rate. Its impact is clearly visible in the young age structure of the country's population with nearly 40percent population below 15 years. India's urban population has also expanded at a fast pace during the past four decades. An important aspect of Indian urbanisation is the concentration of population in a few metropolitan and other cities. In addition, larger cities are growing at a higher rate than smaller towns.

The dynamics of population growth was discussed under the subheadings of fertility, mortality and migration that directly affect the size and growth rate of any population. The various measures of fertility and mortality were explained and the trend over time was discussed. Regional variations in the crude birth rate and crude death rate were also presented.

India was the first country in the world to formulate and implement the population policy in 1952. However, approach, adopted in this policy was clinic based. The population policy 1976 took series of measures to promote family planning at faster rate. These include setting aside 8 per cent of central assistance to states for family planning, raising the marriage age to 18 years for girls and 21 years for boys, higher priority for girls education etc. The performance of these measures has not been upto the mark.

9.11 KEY WORDS

Crude Birth Rate: It relates the total number of live births in a year in a given geographical area to the mid-year population of that year and area.

Crude Death Rate: It relates the total number of deaths in a calendar year in a given geographical area to the mid-year population of that year and area.

Fertility: It refers to the actual performance of women in bearing children during their childbearing ages. Conventionally, fertility is measured by crude birth rate. However, general fertility rate is a better index of measuring fertility.

General Fertility Rate: This takes into account the size of female population in the childbearing age, which effectively determines the fertility of a population of a given geographical area in a year.

Infant Mortality Rate: The number of deaths in the age group 0-1 during a calendar year per 1000 live births during the same calendar year within a geographical area.

Law of Diminishing Returns: Level of other inputs remaining constant, if level of an input is increased, a stage may arise when the marginal product of that input will decline. As a result, total output may decline after a stage.

Migration: It refers to the mobility of individual(s) from one geographical area to another. It may be in the form of, say, rural-urban migration when an individual moves from a rural to an urban area. It may also be in the form of intra-rural migration when a person moves from one village to another. If an individual migrates from, say, Bangladesh to India, it is international migration.

Old Population: A population that has a relatively high proportion of middle aged and aged people. Ours is not an old population as only 6 per cent of India's population is 60 years of age or higher.

Sex Ratio: It refers to the number of females per thousand males. In India, it was 929 in 1991. In most developed countries, however, sex ratio exceeds 1000, as female mortality rate is lower in developed countries compared to that in developing countries like India.

Urban Areas: According to the 1991 census, urban area is defined as, i) all places with a municipality, corporation, cantonment board or notified town area committees, etc.; and ii) all other places which satisfy the following criteria:

- i) a minimum population of 5,000;
- ii) at least 75 per cent of the male working population engaged in non-agricultural pursuits; and
- iii) a density of population of at least 400 persons per sq. km.

Vicious Circle of Poverty: In developing countries, the level of saving is low. As a result investment is low. Low investment gives rise to low level of capital formation. Low rate of capital per labour results in low output. Low output, in turn, gives rise to low saving.

Young Population: A population that has a relatively high proportion of children, adolescents and young adults. Ours is a young population as 40 per cent of our population is less than 15 years of age.

9.12 SOME USEFUL BOOKS

Cassen, R. H., (1978), *India: Population, Economy, Society*, Chapter 4, The Macmillan Co. of India Ltd. Delhi.

Datt, R. and KPM Sundharam, (2001), *Indian Economy*, (Chapter 4) S. Chand & Co. New Delhi

Dhingra, I.C (2001) *The Indian Economy: Environment and Policy*, (Chapter 5), Sultan Chand & Sons, New Delhi.

Government of India, (1998), *Ninth Five Year Plan 1997-2002*, Planning Commission, New Delhi.

9.13 ANSWERS/HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) a) iii b) ii c) i

Check Your Progress 2

- 1) A higher dependency ratio implies higher number of consumers than workers. This has the adverse effect of reducing the rate of savings and investment rates. Consequently, the rate of economic growth slows down.
- 2) i) Sex ratio is favourable to females as the female babies have a better survival rate.
ii) A high growth rate of population is responsible for a high proportion of children in the society.
- 3) i) A population is considered young if it has a high proportion of children and adolescents.
ii) A population is considered old if it has a high proportion of middle aged and aged.

Check Your Progress 3

- 1) In order to avoid decimal numbers, the ratio in CBR or CDR is multiplied by 1000.
- 2) TFR takes into account age specific variations in birth rate. Also it considers only female population in the reproductive age.
- 3) Low fertility: Kerala and Goa.
High fertility: Uttar Pradesh and Madhya Pradesh.

Check Your Progress 4

- 1) India was the first country in the world to formulate and implement a population policy in 1952.
- 2) The National Population Policy of 1976 suggested a number of fundamental measures to reduce birth rate. These measures included funding of state plans on the basis of performance in family planning, freezing the size of legislative representatives on the basis of 1971 census, raising the age of marriage, and incentives for female education.

UNIT 10 HUMAN RESOURCES DEVELOPMENT

Structure

- 10.0 Objectives
- 10.1 Introduction
- 10.2 The Provision of Education in India
 - 10.2.1 The Importance of Education
 - 10.2.2 India's Record in Educational Achievement
 - 10.2.3 Some Shortcomings in India's Educational Performance
 - 10.2.4 Education Policy and Strategy in India
- 10.3 Health Care in India
 - 10.3.1 Basic Health Scenario in India
 - 10.3.2 Allocation in Health Care
 - 10.3.3 Finance for Health Care Services
 - 10.3.4 Structure and Component of Spending in Developing Countries
 - 10.3.5 Health Plans and Policies in India
- 10.4 Social Security in India
 - 10.4.1 What is Social Security?
 - 10.4.2 Approaches in Providing Social Security
 - 10.4.3 Social Security in the Organised Sector in India
 - 10.4.4 Social Security in the Un-Organised Sector
- 10.5 Let Us Sum Up
- 10.6 Key Words
- 10.7 Some Useful Books
- 10.8 Answer and Hints to Check Your Progress Exercises

10.0 OBJECTIVES

You have learnt about population and demographic aspects in the previous unit. This unit talks about the quality of that population. It deals with humans as productive capital, and discusses investment in human capital by the State through education, health and social security. This investment is intended to enhance the productivity and quality of human capital. We discuss the health care scenario in India as well as the education sector. Of course, we limit our discussion mainly to economic aspects pertaining to these sectors. We also discuss how successfully the state has been able to provide social security to the deserving among the Indian populace. After going through the unit, you should be able to:

- Describe and discuss the education policy and the education situation in India;
- Explain the relation between poverty, health and development;
- Describe the health care policy of the State in India;
- Evaluate some important components of the health care policy, as well as its outcomes in terms of the health status of the Indian people; and
- Elucidate the various components of social security as relevant and pertinent to India and discuss the degree of success achieved.

10.1 INTRODUCTION

Many countries in Asia, Africa and Latin America gained independence from colonial rule in the 1940's and 1950's. India was one of them. Almost all of these countries were desperately poor after decades of foreign rule. Economic development became the primary focus of the newly independent states, and raising national income was

seen as the path to development. For this, the greatest attention was paid to accumulation of physical capital like machines and heavy industry. Later, it was found that social development was just as important and became a desired objective of policy. Initially labour, and then education was considered the quintessential human capital. Later, as research in development proceeded, health also acquired tremendous importance as human capital. Moreover, education and health are important indicators of human development and welfare in their own right. Related to this is the idea that a nation can, and must invest in human resources in the hope of future returns on investment in much the same way as investment in any physical or financial asset.

In this unit, you will be acquainted with some of these policies concerning social development. In particular, we will take up education, health and social security policies for discussion and many policy measures lend themselves to this description. Having gone through the earlier units, you would presumably have arrived at the conclusion that the ultimate objective of all development processes and activities is to improve the quality of life of the people. You would be quite correct to do so.

Along with the idea that human capital is as important as physical capital, arose the idea that the appropriate measure of development was not merely an economic indicator like Gross National Product; the view quickly gained acceptance that there ought to be indicators that measure human development. In an earlier unit, you have studied about indicators like Physical Quality of Life Index (PQLI) or the United Nations' Human Development. These indices are of direct relevance in our present discussion. Please refer to that material.

In this unit, we shall also discuss some aspects of the provision by the state of what are called welfare measures in terms of human resources. Of course, these measures can be, and are, provided by the private sector, even in India to a certain extent. However, we focus our attention chiefly on what the state has done and how successful it has been in this endeavour. The unit will attempt a description and analysis of the Indian experience but will also need to bring in some conceptual analysis as well.

10.2 THE PROVISION OF EDUCATION IN INDIA

We begin this section by looking at the reasons why education is so important in the development of a nation and its people. Education is now considered akin to capital goods that will provide human capital in the form of better-equipped workforce. As a consumer good, education also improves vastly the quality of life. So how is education important?

10.2.1 The Importance of Education

First, education has intrinsic importance. Being educated is a valuable achievement in itself. Secondly, if a person gets education, it enables him or her to do many other valuable things other than being educated. It may increase the person's chances of getting a job, for instance. This, in turn, would raise the person's earnings, which increases his or her purchasing power that increases his or her standard of living. Thirdly, being educated enables a person to discuss social needs and make it easier for the person to place demands of social groups collectively. Fourthly, education, particularly schooling, can have aims that go beyond formal education. Schooling not only widens the horizons of children by bringing them in contact with other children; by keeping children in school, it reduces child labour. Finally, education has empowering and distributive roles. Education allows deprived and disadvantaged

groups to protest against injustice, to resist oppression and to organise politically. In fact, even if one person is educated that person can help the others to get organised. Education helps also to reduce other forms of deprivation. For example, in Kerala, education has led to lowering of caste barriers and reduced gender bias.

10.2.2 India's Record in Educational Achievement

Successive five-year Plans have stressed the importance and role of education in economic development. India has managed significant gains in certain areas of education, like higher education; technical and managerial education; and research and development. People often speak of a brain drain in the form of an exodus of bright, trained scientists, engineers, doctors, computer professionals and managers (apart from brilliant students in other areas) to developed countries. But, we have to remember that India has been producing this stream of 'brains' over the years in the first place. Thus, India produces six times the number of graduates that China does. But we have to look at India's overall achievements in education.

India has managed to diversify provisions in education and increase education infrastructure in terms of institutions, enrolments and teachers.

Institutions

The number of primary schools in the country has increased from 2.1 lakhs in 1951 to 5.9 lakhs in 1995, an increase of 181 per cent. The number of upper primary schools has gone up from 13 thousand in 1951 to 1.71 lakhs in 1995, a rise of 1216 per cent. There were 72 thousand secondary schools in 1995. The number of higher secondary schools has risen from 17 thousand in 1961 to 24 thousand in 1995 (an increase of 460 per cent) according to Economic survey 2000-2001. The number of universities has climbed upwards from 27 in 1951 to 185 in 1995, an increase of 740 per cent. There are also 42 deemed universities and 5 institutions of national importance. There are about 11000 colleges.

According to the Sixth All India Educational Survey (1993), 83.4 per cent of the rural habitations had a primary school within the habitation or within a distance of 1 km. in 1993.

Teachers

The number of teachers working in elementary and secondary schools went up six times, from 7.5 lakhs in 1951 to 43.98 lakhs in 1995, with female teachers forming 34 per cent of the total in 1995.

Enrolment

Enrolments in all types of institutes have registered a substantial growth. Enrolment in the primary stage went up from 19.2 million in 1951 to 109.73 million in 1995 while that of upper primary stage went up from 3.1 million to 41.01 million. At the higher secondary stage, the enrolment went up from 1.5 million in 1951 to 24.9 million in 1995-96, an increase of 1560 per cent. The share of girls' enrolment in the total enrolment rose from 13 per cent in 1951 to 25 per cent in 1995-96.

In 1951, the gross enrolment ratio was 42.6 per cent for the 6-11 age group while it was 12.7 per cent for the age group 11-14. This went up to 104.3 per cent and 67.6 per cent respectively in 1995. Taking a perspective of gender, we find that in 1995, the gross enrolment ratio in the 6-11 age group was 93.3 per cent in the case of girls while it was 114.5 per cent in the case of boys. In the age group 11-14 in the same

year, it was 54.9 and 79.5 for girls and boys respectively. However, the National Council of Educational Research and Training has considerably lower estimates than the ministry estimates, and finds that in 1997, the overall gross enrolment ratio in the primary stage was 90 per cent, with girls' enrolment ratio being 73 per cent. For 1998-99, the All-India overall enrolment ratio at the primary level (Class I-V) was 92.14 per cent. For boys, it was 100.86 while for girls it was 82.85. However, at the upper primary level (Class VI- VIII), the gross enrolment was still low at 58 per cent overall with 65.27 per cent for boys and 49.08 per cent for girls.

Let us now consider the position concerning Scheduled Castes' and Scheduled Tribes' enrolment. In 1980-81 for classes I-V, the gross enrolment for boys was 105.4 per cent for SCs, 94.2 per cent for STs and 95.8 for All-India. For girls, the corresponding percentages were 57.8 per cent, 45.9 per cent and 64.1 per cent. For total population, the percentages were 82.2, 70.0 and 80.5 respectively. Now let us consider a more recent year, 1995-96. For boys, the percentages were 129.9 for SCs, 130.0 for STs and 114.5 for All-India. For girls, the percentages were 94.9 for both SCs and STs and 93.3 for All-India. Now think about classes VI-VIII and take 1980-81. The figures for boys were 41.4 per cent for SC, 28.2 per cent for STs and 54.3 per cent for all-India.

For girls these figures were 16.2, 10.8, and 28.6 for SCs, STs and all-India respectively. For total population, boys and girls together, the figures were 29.1, 19.5 and 41.9 for SCs, STs and all-India respectively. Come to a more recent year 1995-96 now. In the case of boys the percentages were 60.7, 60.8, and 79.5 for SC, ST and all-India respectively. For girls, the percentages were 37.1, 37.1 and 55.0 for SC ST and all-India respectively. For the total population, the enrolment percentages for SC ST and all-India were 49.2, 49.2 and 67.6 respectively.

Literacy

Let us now talk about the progress made over the years with respect to one of the most important, and perhaps the most basic, of all indicators related to education, and that is, literacy. India has made considerable progress in literacy, particularly in the 1980s and 1990s. In 1950, the literacy rate was less than 20 per cent. Even in the mid-1970s, the literacy rate was about 30 per cent. But from 1991, to 1997, the overall literacy rate climbed from 52 per cent to 64 per cent. For males, the rate rose from 64 per cent to 73 per cent while for females, it went up from 39 per cent to 50 per cent. What is somewhat heartening is that relatively poorer states like UP, Bihar and Rajasthan showed significant improvements in literacy, although from low levels. Thus, Rajasthan and Bihar, which were states right at the bottom in the ranking in terms of literacy levels in 1991, increased their literacy rates from 39 to 55 per cent, and 38 to 48 per cent between 1990 and 1996. Another state to show significant increase in literacy levels is West Bengal, which raised its literacy rate from 58 per cent in 1990 to 72 per cent in 1997.

It is estimated that currently the All-India literacy rate is growing at 2.75 per cent per year, but even then it will be more than a decade before India catches up with the literacy levels enjoyed by countries like Sri Lanka and China today. There seems to be an increased awareness as well as commitment on the part of state governments to raise literacy levels. The sustained effort made by the National Literacy Mission in the 1990s is beginning to show results. The non-Formal Education Programme was launched to meet the needs of school dropouts, working children, and those belonging to Scheduled Castes and Scheduled Tribes.

What have been the main achievements of India's educational system? First, access to education has increased for a large number of persons at the primary, secondary as well as the tertiary level. The government has sought to provide access to as well as incentives for education. Secondly, India has a huge pool of trained scientists and professionals. This is related to the third point, namely India has developed excellent institutions at every level, particularly the tertiary level. This is the reason why India is able to provide a huge corpus of talented people working in cutting-edge technology area in computer software, and have made a mark as a community even in the Silicon Valley in the USA.

10.2.3 Some Shortcomings of India's Educational Performance

First, average literacy rates are low: 64 per cent for males and 39 per cent for females at the all India level. India's literacy rates are low compared to China, lower than that of low income countries as a whole, and not higher than that of sub-Saharan Africa. Also, the percentage of people attending educational institutions is very low. Less than 3 per cent of people in the relevant age group, attend college or university. In school, the retention rate is low, and the dropout rate is very high. About 47 per cent of the children entering school make it to the end of primary level, and less than 3 per cent complete class XII.

Secondly, there is widespread inequality in educational achievement across states. For instance, female literacy rate is 20 per cent in Rajasthan and 25 per cent in Uttar Pradesh whereas it is 86 per cent in Kerala. This is a reflection of different policies, and varying efforts to raise literacy levels in the states.

Thirdly, there are large inequalities in educational achievements between different social groups and regions, between males and females, between urban and rural areas and across class and caste groups. This feature, combined with low average rates of literacy implies that disadvantaged groups in society have very low educational levels. For example, Scheduled Caste women, who comprise 16 per cent of the Indian population, have a literacy rate of only 19 per cent. Women, who belong to Scheduled Tribes, comprise 8 per cent of the total population, have a literacy rate of only 16 per cent. In many backward areas of the states such as Bihar, Madhya Pradesh, Uttar Pradesh and Rajasthan, the literacy rates for all females aged 7 and above are less than 10 per cent. Often different sources of being disadvantaged combine, such as being female, belonging to a backward caste and living in a backward region to display extremely low literacy rates.

Fourthly, illiteracy is widespread in all age groups and not only in the older age groups. For example half of all females in the age group 0-14 years in India are illiterate. The persistence of widespread illiteracy in the younger age groups is one of the disturbing features of the education scenario in India.

Fifthly, enrolment rates in India are distressingly low. Over half of the rural females in the age group 12-14 years in India have never been enrolled in any school. This proportion is two-thirds for Bihar, Madhya Pradesh and Uttar Pradesh, while it is 82 per cent for Rajasthan. For India as a whole, only 42 per cent of rural females in the age group 10-14 are attending school.

Finally, the cost of education, particularly higher education, is very high. Coupled with this is the fact that the quality of much of the education provided is very low. Also, the system is quite rigid. There also seems to be the case that the state has stressed on higher education in urban areas to the relative neglect of primary education in rural areas.

The mismatch between the economy's employment needs and the supply of trained manpower, has given rise to the increasing load of the educated unemployed, particularly of those with general arts degrees. On the other hand, there has been a sustained outflow, the brain-drain, of the best scientific and professional manpower to advanced countries—a subsidy paid by us to the developed countries. This included personnel in medicine as well as engineering. This has strengthened the argument in favour of privatisation of higher education, at least withdrawal of the public subsidies. These subsidies, it is argued, tend to widen socio-economic inequality. Withdrawal of such subsidies would, however, have to be balanced by suitable assistance to meritorious students, particularly from the relatively poorer strata. Similar arguments have been advanced in favour of privatised, expensive and high-tech medical facilities also, which have tended to proliferate over the last decade. These are the consequence of the increasingly unequal distribution of income, both in town and country, and tend, in turn, to accentuate such inequities. Private consumption expenditure on medical care and education has grown much faster than per capita consumer expenditure.

The distorted expansion of general higher education, and the rising backlog in primary/basic education, vocational education and adult literacy have led to relatively lower productivity-effects of public investment in education compared to that of such investment in, say, electricity, irrigation, or fertilisers.

There is also a high degree of complementing of the different components of human resource development, such as between education and health inputs, housing, and access to adequate nutrition etc. This has normally gone by default even in our policy-planning stages, thereby reducing the efficiency of public expenditure across these sectors.

10.2.4 Education Policy and Strategy in India

Education policy derives its focus from the Directive Principles of State Policy in the Indian Constitution. Article 45 of the constitution urges the State to provide free and compulsory education till the age of 14. This was to be done by 1960. Universalisation of Elementary Education (UEE) has been the cornerstone of education policy in India. This goal turned out to be too ambitious, and the measures taken in this regard have fallen far short of that required. Till date, no state in India has been able to implement compulsory education. Recently, the Supreme Court has declared right to education as a fundamental right.

Education was placed in the Concurrent List in the Constitution to facilitate smooth co-operation between the Centre and the states. There have been some later initiatives such as the Operation Blackboard, launched in 1986 to promote primary education. Or the District Primary Education Programme (now in operation in about 150 districts), launched to increase government efforts to provide education to children in the 6-11 age-group, with emphasis on girl children, marginalised communities and those with disabilities. Other recent changes include greater utilisation of Panchayati Raj Institutions functioning under the framework envisaged by the 73rd and 74th Amendment to the Constitution.

One shortcoming of Indian education policy has been that the government has repeatedly declared lofty goals without spelling out the practical steps that the policymakers proposed to take in order to realise those goals. In fact, there have often been inconsistencies between stated goals and actual policy. There are also sometimes conflicting objectives. Furthermore, there has been contradiction between stated goals and resource allocation. By international standards, India has spent

somewhat less on education. In 1996-97, the Central and state governments spent about 4 per cent of GDP on all levels of education, or 13.5 per cent of total government revenue expenditure. What the trend in education under liberalisation will be is not clear, but there will probably a greater role played by the private sector in the provision of education, and government spending on education may not rise very fast, due to the need to cut budget deficits as also the basic philosophy underlying reforms.

Check Your Progress 1

1) Why is education important for national development?

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2) State some of the shortcomings in the performance of education in India.

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3) Briefly mention the essential features of educational policy in India.

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10.3 HEALTH CARE IN INDIA

India does not have an enviable record in health care provision as well as the health status of the people; in fact, the performance has been quite poor.

A good health status of the people is a desirable goal in itself, apart from leading to higher productivity levels of the labour force because, other things being the same, healthier workers are more productive and efficient.

The very definition of poverty as followed in India requires that a certain minimum level of nutritional energy levels be met. A very low nutrition level for a large number of people implies that a substantial proportion of the Indian people still live below the poverty line. Moreover poor people are relatively more vulnerable to infectious diseases. Added to this is the fact that poverty in terms of poor nutrition resulting from very low purchasing power goes hand in hand with poor sanitation, inadequate access to drinking water and poor housing. Poverty, poor nutrition and low levels of health are almost always found together in India. In this section, we discuss the provision of health care by the State to raise the health standards of the Indian people.

10.3.1 Basic Health Scenario in India

After India attained Independence, health related progress has been significant in several directions. For example, the crude death rate in India declined from over 27 per thousand to less than nine, over the past 50 years. Life expectancy at birth

increased from 31-32 years in 1941-51 to an estimated 62.36 for males, and 63.99 for females. The infant mortality rate has declined from around 160 per thousand live births to 70 in 1999. Small pox has been eliminated and mortality from malaria and certain other communicable diseases has been controlled significantly. The government has launched a vigorous pulse polio programme to eliminate polio.

Considering the limited availability of health care system in the country and practically its absence in the rural areas, the Government of India had taken fairly early steps to establish a "primary health centre" (PHC) in each community development block. By the end of the Second Five-Year Plan, over 5,000 PHCs were established in the country. India became a signatory to the Alma Ata Declaration (1978) of the World Health Organisation, whereby we have been committed to achieving "Health for all by 2000 AD." Following this, the Government of India adopted a "National Health Policy" in 1982. The Ninth Five Year Plan (1997-2002) identifies health as one of the six priority areas and stresses combining various health programmes; better surveillance and control of diseases; an improved information management system; and greater use of Panchayati Raj Institutions in the delivery of primary health care.

10.3.2 Allocation in Health- Care

India and most other developing nations have had the explicit goal of providing health services to the entire populations by 2000 AD. But the fact remains that the trend in spending on basic public health facilities, in these countries, proved very much inadequate for realising this goal. Moreover, there is little private spending on low cost public services, like health education, immunisation, etc.

Per capita spending on health is very low in the low-income countries. As income rises, demand for health-care rises more than proportionately. This happens partly because the composition of diseases (or the case mix) gradually changes from more of preventable infections to green of diseases like cardio-vascular diseases. This phenomenon is called epidemiological transition. The latter types of diseases are very expensive to treat. Thus, in the developed countries, greater effect in lower morbidity and mortality can be brought about by preventive measures, which are inexpensive. For instance, much before the invention of penicillin, mortality rates significantly come down in the present day developed or rich countries, due to the provision of sanitation and basic (or primary) health-care services. In the early 19th century, even those countries had very high proportion of infectious diseases. Modern medicine played a lesser role in those societies. All this is important to remember, when one examines the amount of allocation made to preventive and to curative medical care in the developing countries today.

Another feature of health care facilities in the developing countries is that the funds for such services are still provided largely by private individuals. In countries like India and Bangladesh, about 60 to 70 per cent of the total expenditure on health services is provided by private individuals.

But in terms of the quantum of services provided, the share of the private sector is likely to be less because its services tend to be quite expensive when compared to the services provided in the government facilities. Actual service output of private and public sectors is not available, at present. No system exists to collect such statistics systematically.

10.3.3 Finances for Health Care Services

General tax revenues support health financing by most of the governments in the developing countries. Many countries have social security systems for a section of their population. For example, in India, the Central Government employees can avail of the Central Government Health Scheme (CGHS) facility and the industrial workers in the organised sector have the benefit of the Employees' State Insurance (ESI) to meet their health care needs. General cost recovery and user charges form a very small portion of the government's revenue for direct financing of health care services. Fees charges in the government hospitals, in India, covered less than two per cent of the expenditure on hospitals in 1990-91. This in fact, fell from around six per cent in the early seventies.

In the private sector, on the other hand, the physicians and other health personnel are financed completely by fees for services and other user-charges. In most developing nations, third party payments and medical insurance is rare, though in some countries, India for instance, medical insurance is gradually making an appearance. In particular, the employees of the public sector undertakings and private corporate sector are covered by a number of company-sponsored insurance schemes. The magnitude of these schemes is not known.

10.3.4 Structure and Component of Spending in Developing Countries

What is the kind of spending and its structure that is required for the developing countries? For this, it is essential to estimate the cost of a package of basic health intervention like immunisation, prenatal and post - natal care, and other primary health interventions. But these estimates can vary over time and across regions. In India, there is a general belief that, proportionately, more is spent on the curative rather than preventive services. But the funds cannot be entirely redirected from the curative to the preventive services, or from the tertiary to the primary care. Hospitals are necessary, too. What could be done is that the referral system should be improved which is almost non-existent at present.

If we take the type of the patients that are admitted to hospitals, we find that a large part consist of those suffering from diarrhoea, gastrointestinal diseases, respiratory diseases, tuberculosis, complications from malnutrition, and so on. These diseases can be prevented easily by laying greater stress on sanitation and preventive public health-care, and by strengthening the primary health centres in the rural areas, local dispensaries in the urban areas, and the secondary level hospitals (district hospital). Thus, if we do a cost effectiveness analysis for most hospitals in the developing countries, we shall find that although a necessary expenditure, the hospital system it is likely to be highly cost ineffective in comparison to the primary level facilities and preventive services.

What is the basic reason for the paucity of funds in the health sector? The main reason seems to be that in most developing countries, the health-care system is highly centralised. Moreover, the pricing mechanism is very poorly utilised as a revenue-generating process if and as a method to enforce a rational referral system. We shall touch upon this point in detail a little later. Apart from insufficient spending on health -care, the quality of services is poor, too. One reason is that health-care personnel in the government and public sector are often poorly paid and poorly equipped in terms of other support facilities. For instance, drug budgets and essential maintenance expenditure are often not fully met. This happens particularly when

there are budget cuts. Since salaries cannot be cut, any budget cut is met by reducing expenditure on support expenditure such a medicine, equipment and maintenance.

10.3.5 Health Plans and Policies in India

The overall health planning aspiration has oriented itself to being biased towards preventive public oriented services, with greater emphasis on the rural areas. At least, this is what all plan documents emphasise. The picture, in reality, is very different. The health service in India is urban-biased, elite-oriented, and curative in nature. Expenditures on health flow a lot to urban hospitals. However, some success has also been achieved in the public preventive services.

In terms of expenditure, health includes medical and public health expenditures. Health - related expenditures include family welfare, nutrition, etc. Health in India is primarily the concern of the State Governments. Family welfare, however, is looked after by the Central Government. The Ministries of Health and Family Welfare, Labour and the Department of Social Welfare are the agencies at the centre primarily concerned with health. Other specific programmers like the minimum Needs Programme, which has nutrition as a component, also have a bearing on the health policies.

In conclusion, we can make the point that the Planning Commission, which has stressed public preventive services, and the Health Ministry, which has usually emphasised curative facilities, have some times appeared to have worked at cross purposes. Another point we can make is that family welfare has assumed increasing importance, especially with respect to expenditure. Finally, the share of the government budget expenditure going to health has not seen any dramatic increase.

Check Your Progress 2

- 1) The National Health Policy was adopted in
a) 1950 (b) 1969 (c) 1982 (d) 1991
- 2) Why is there usually a shortage of funds in the health sector?
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- 3) What is epidemiological transition?
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10.4 SOCIAL SECURITY IN INDIA

Before we begin the discussion on the social security measures that have been taken in India in the years after Independence, we must have an idea of what exactly is meant by social security, what kind of services are provided, who are the beneficiaries, which are the institutions through which they are provided, and so on. Also, and very important, why social security measures need to be provided?

10.4.1 What is Social Security?

Let us begin with the last question first. For a large number of people in India, particularly for those in the rural areas and those who are poor, deprivation and vulnerability are facts. Many of the specific public actions to ameliorate deprivation and vulnerability can be considered part of the range of social security measures.

In defining or explaining what social security is, one runs the danger of being too specific or too general. In developed countries, certain instruments have been found to be important, like unemployment insurance, old age pensions and invalidity benefits. This approach may not be altogether useful and appropriate when we study developing countries. The other danger in explaining the concept of social security is to be too general. Instead of approaching the definition in terms of means, we could define social security in terms of objectives of removing deprivation and reducing vulnerability. Taking this approach, we could end up including anything that contributes towards these objectives as social security measures, that is, part of the social security system. This approach would not take us very far because human well-being is affected by many social and economic factors and not all of them are included in the definition of social security.

Experiences of the operation of markets in various countries have shown that there are certain groups in society which are vulnerable to ill-health, disease and general poverty and deprivation as the economy functions. In this regard, the state undertakes certain set of actions, which some authors put under the rubric of social security. This is a much broader idea of social security than is usually used. Usually social security is seen as measures designed to prevent hardships to members in the organized workforce, due to circumstances that cause a disruption in the earning activities. For example, a lady proceeding on maternity leave should continue to get all monetary benefits she was getting earlier. Similar is the case of provident funds or pension to provide for workers in the organized sector in their old age. However, some social scientists have argued that in poor countries where the proportion of people in the organised sector is very low, it makes sense to talk of social security as including measures for alleviating the basic vulnerability that the poor and unorganized have i.e disruption or snatching away of earning capacity or assets.

Public action is not simply action by the state. It includes actions by the public for itself. During disasters but also otherwise, the actions of NGOs, charitable and religious institutions must be mentioned here. In many traditional societies in India, the family, too, has acted as a provider of social security. Some times it can be taken to mean the checks and the pressures that, say, the print media keeps on the government. Involvement and activism by the public is necessary. The public must act as a watchdog.

10.4.2 Approaches in Providing Social Security

Governments can adopt two broad approaches to social security measures. The first way is to promote general economic growth and use the general benefits accruing from growth to help vulnerable sections of the population. The other approach is to take public action measures directly in terms of social sectors such as education and health and also promote better income distribution patterns, and generate employment. It is possible to argue that checking inflation also helps in mitigating adverse effects of prices on the vulnerable sections of the population. The first approach seems to have worked very well in East Asian countries like Hong Kong, Singapore, Japan and South Korea, as also for countries like Kuwait and United Arab Emirates. Cuba

is a classic example of the second approach as also is China. In fact, some observers argue that in China, when liberalisation led to very high growth rates in the eighties and nineties, social indicators like the infant mortality rate actually displayed a rise. Perhaps there has been a tradeoff between growth and social security.

Although we have contrasted between social security through growth and direct public action-based security measures, the relation between these approaches is somewhat more complex. First, in many cases the two go together. Second, in some cases, there is not so much the question of choosing between the two as of getting the timing and sequence right. For instance, it is possible for a country to first undertake direct public action for social security and not stress all that much on growth, and only later emphasise growth.

Second, it is not true that the former approach necessarily means relying on and encouraging the private sector while direct public action implies a big role for the government. India is a case in point. In the 1950s, India chose a path of development that emphasised economic growth but relied on the public sector as the engine of growth and let this sector occupy the 'commanding heights' of the economy. This measure assumed that growth will automatically trickle down. By the late sixties, it began to be felt that the benefits of growth had not reached every section of society. Incomes were still highly inequitable and skewed. Poverty levels were distressingly high. Policies had to include direct action. This led the way for direct anti-poverty and employment-generation programmes, as well as a programme to provide basic minimum needs including drinking water, housing etc. The wheel seems to have turned again in the nineties as, ever since 1991, faith has once again been placed on economic growth, although this time around with a much larger role of the private sector and foreign investors.

10.4.3 Social Security in the Organised Sector in India

The 1997-98 Annual Report of the Ministry of Labour has defined social security as "protection which society provides for its members through a series of public measures against the economic and social distress caused by stoppage or substantial reduction of earnings resulting from sickness, maternity, employment injury, unemployment, invalidity, old age and death and to provide for medical care and to subsidies such medical care for families with children". Social security programmes are designed to provide benefits, both in cash and kind, on occurrence of such contingencies." It is clear that this definition sees vulnerability in terms of stoppage or reduction of earnings, not as a lack of or very low levels of earnings. Also insofar as it considers situations such as ill-health. This consideration is limited to its impact on earnings and not directly as reduction of welfare.

Laws related to social security in India are mainly applicable to the organized sector and are designed to benefit workers and employees. The important laws are the following:

- The Workmen's Compensation Act, 1923
- The Employees' State Insurance (ESI) Act, 1948
- The Employees' Provident Fund & Miscellaneous Provisions, Act, 1952
- Maternity Benefit Act, 1961
- The Payment of Gratuity Act, 1972

The Workmen's Compensation Act, 1923, has as its objective the provision of compensation to workmen in cases of industrial accidents or in cases of occupational diseases resulting in disablement or death. It is given as compensation for death or temporary disablement to persons employed in factories, mines, plantations, the Railways and other sectors, which have been mentioned in the second schedule of the Act. The main beneficiaries of the Act are workers/dependants not covered by the ESI Act. The amount of compensation is 50 per cent of wages for a maximum period of five years in cases of temporary disablement; a minimum of Rs. 60,000 to a maximum of Rs. 2,74,000 in cases of permanent disablement; and a minimum amount of Rs. 50, 000 to a maximum amount of Rs.2,28,000 in cases of death.

The Employees Provident Fund Act came into force with effect from 14th March, 1952. At present, three schemes are in operation under the Act:

- The Employees' Provident Funds Scheme, 1952
- The Employees' Deposit-Linked Insurance Scheme, 1976
- The Employee' Pension Scheme,1995

Thus, the objectives of the programme are to provide compulsory provident fund, pension and deposit linked insurance. It is applicable to those factories and establishments employing 20 or more employees in scheduled industries; and such other establishments as are notified by the Central Government. Only those employees whose monthly income is not greater than Rs 5000 are eligible. This income ceiling is applicable since 1994. The earlier ceiling was Rs. 3500. Provident fund is paid at the rate of 12 per cent or 10 per cent whichever is applicable. There are monthly or family pension schemes. Other than payment at the terminal point of the working span, withdrawals can be made for life insurance or house-building purposes.

This Act is now applicable in 177 classes of factories/establishments. Each of these factories/establishments employs 20 or more workers. At the end of March 1997, 2.77 lakh establishments with 20.29 million subscribers were covered under the Employees' Pension Scheme. All persons who were members of the family pension scheme are to be compulsorily under the Employee's Pension Scheme. It is also compulsory for those who became members of the Provident Fund Scheme from 16 November 1995. The Scheme came into operation from 16 November 1995, but the employees, including those covered under the Voluntary Retirement Scheme have an option to join the scheme with effect from 1 April 1993. To be eligible under the Scheme, the person should have a minimum 10 years' contributory service. Normal pension is payable on superannuation but pension on a discounted rate is payable on attaining the age of 50 years. Under the scheme, pension is payable under the following circumstances:

- Superannuation
- Retirement
- Death during service
- Permanent total disablement
- Death during service
- Death after retirement or superannuation
- Children pension
- Orphan pension

Monthly payment is made according to the formula:

$$\text{Pension} = \text{pensionable salary} \times (\text{pensionable service} + 2) / 70$$

where pensionable salary is the average of the last twelve months' salary.

The Payment of Gratuity Act, 1972 is applicable to factories and other establishments employing not less than 10 persons. On completing 10 years of service, employees are entitled to pension @ 15 days' wages for every completed year of service or part of the year more than six months subject to a maximum of Rs. 2.5 lakh.

The Employees State Insurance Act 1948 is a typical social security measure and provides for a crude form of health insurance to workers. It provides for health care and cash benefit payment in the event of sickness, maternity benefit and employment injury. It applies to factories using power and employing 10 or more persons and factories and certain other establishments, which do not use power and employ not less than 20 persons. Till 1997, about 73 lakh employees were covered under the Act.

A statutory body called the Employees' State Insurance Corporation administers this Act. The ESIC has members representing employers, employees, the Central and state governments and the parliament, as also the medical profession. The Union Labour Minister is its chairperson. A standing Committee formed from among the members acts as the executive body for the ESI scheme and is chaired by a Secretary in the Ministry of Labour. There are now 20 regional Boards and about 310 Local Committees in operation.

The ESI scheme is financed mainly by contributions from employers and employees. The State Governments' share in the expenditure in the provision of medical benefits is 12.5 per cent. The expenditure on medical care has been enhanced from Rs. 410 to Rs. 500 per Insured Person Family Unit per annum from 1.4.97. From this per capita ceiling, an amount of Rs. 165 is earmarked for drugs and dressings.

The medical care under the ESI scheme is administered by the state governments except for the National Capital Region.

The Maternity Benefit Act 1961 is designed to provide benefits to working mothers in the organised sector. Currently a proposal to extend this Act to women employees in agricultural and construction sectors in Madhya Pradesh has been approved.

10.4.4 Social Security in the Un-Organised Sector

Land Reform Programmes

We can consider two types of policies in this context: ceiling-cum-redistribution policies and tenancy reform.

In India tenancy laws were passed in the 1950's. By the mid-1980's, about 1.5 per cent of the cultivated land had been acquired under these ceiling acts, and less than 80% of it had been actually distributed. According to the agricultural census of 1980-81, the total operated area was 163 million hectares. Of these, only 2.97 million hectares were declared surplus, but only 1.82 million hectares could actually be distributed by the mid-1980's. On an average, around 1.3 acres of land was received by nearly 3.4 million persons. The sense of security of these people was thus increased, especially as many of them belonged to the Scheduled Castes and Scheduled Tribes. However, the total amount of land distributed was itself very small, and hence a negligible proportion of the rural poor could be assisted. Implementation of ceiling laws has been very poor.

A large part in the success in tenancy reforms, where it has taken place, has been played by political imperatives and will. Two of the biggest success stories in this regard have been Kerala and West Bengal.

Employment Generation Programmes

In India, the principal self-employment programme for the rural poor has been the Integrated Rural Development Programmes. Launched in 20 blocks in 1976, this programme was first extended to 2300 blocks in 1978 and then started all over the country in 1980. The target group was the rural poor. The programme aimed at asset creation through self-employment of the poor and the objective was to raise the poor above the poverty line through a one shot intervention. There were other programmes like Development of Women and Children in Rural Areas (DWCRA) and Training of Rural Youth for Self Employment (TRYSEM).

Wage Employment Programmes include the Employment Guarantee Scheme 1972, the Food For Work Programme, 1977, National Rural Employment Programme, 1980, and Rural Landless Employment Guarantee Programme, 1983. The last two were merged to form the Jawahar Rozgar Yojana, 1989. There have been several later programmes such as Nehru Rozgar Yojana (NRY), Prime Minister's Rozgar Yojana (PMRY), Prime Minister's Integrated Urban Poverty Eradication Programme (PMIUPEP) etc. There have been some changes, too, in the operation of earlier programmes. The Jawahar Gram Samridhi Yojana is a new programme launched in April 1999, as a successor to the Jawahar Rozgar Yojana, as a centrally sponsored scheme on a cost sharing ratio of 75:25 between the Centre and the states. The Swarna Jayanti Swarozgar Yojana (SGSY) was launched in April 1999 by restructuring and combining the Integrated Rural Development Programme and the Million Wells Scheme into a single self-employment programme. To provide benefits of social assistance to poor households affected by old age, the government launched the National Social Assistance Programme (NSAP) on 15 August 1995 as a 100 per cent centrally sponsored programme. There are other programmes like the Employment Assurance Scheme (EAS) started in 1993 in 1772 backward blocks situated in drought prone, desert, hilly and tribal areas; and the Pradhan Mantri Gramodaya Yojana (PMGY) and the Swarna Jayanti Shahari Rozgar Yojana (SJSRY). These differ among each others in objectives, breadth, and coverage. We have listed these programmes only as illustration, and have not provided any description and analysis.

These programmes are sometimes studied as poverty alleviation programmes and employment generation programmes. But it is clear, and as mentioned above, some writers hold this view, that for the poor, basic needs, employment, access to assets like land, and as you will study in the next block, food security, are all components of social security.

Apart from these there are particular measures for unorganised labour, such as the Beedi Workers' Welfare Fund Act, 1976 and the Cine Workers' Welfare Fund, 1981. There is also a very elaborate Minimum Needs Programme which aims to provide necessities like clean drinking water, sanitation, and housing. A programme that aims to provide housing for the poor, Indira Awaas Yojana also is in operation.

Check Your Progress 3

1) What do you understand by social security?

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- 2) Mention some of the important social security measures in operation in the organised sector in India.

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- 3) What kind of social security can be provided to the poor and vulnerable in the unorganised sectors?

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10.5 LET US SUM UP

This unit discussed some aspects of education, health and social security in India. Economic and social development depends to a greater extent upon the quality of labour force, which in turn, can be improved through better education and health facilities.

Realising the importance of education, the framers of Indian Constitution have included the provision of free and compulsory elementary education as a Directive Principle of State Policy. Although universalisation of elementary education and eradication of illiteracy have been repeatedly stated as a plan objective, it has not yet been achieved. However, there is significant growth in educational facilities and enrolment. There are perceptible disparities in enrolment and literacy to the disadvantage of the female sex. The inter-state variation in literacy shows a positive association between literacy and level of development barring a few poor states like Kerala, Tamil Nadu, Karnataka and Himachal Pradesh having higher literacy. Keeping in view the imbalances in different faculties of higher education and the pressing unemployment situation, there is recent stress on vocationalisation of education at the ten-plus- two level.

There is considerable growth in primary health care in terms of coverage of population. The expanded medical infrastructure in both rural and urban areas and the strategies to control various diseases through immunisation, provision of safe drinking water, improved nutrition of mother and child, and maternal and child health services have reduced the morbidity and mortality in the population. This has increased life expectancy and reduced infant mortality.

There are substantial regional variations in the availability of medical infra-structure. In terms of quality and quantity, urban areas are much better-off than rural areas. Considering the limited availability of health care system in the country and practically its advance in the rural areas, the Government is committed to achieve 'Health for All by 2000 AD.' But the present patterns of both educational and health facilities do not answer to the requirements of the rural and urban poor.

The unit gave an expanded notion of social security. The unit not only discussed about social security in the organised sector but also the notion of social security applicable to the poor and vulnerable in the non-organised sector, such as measures regarding land reforms, food security, and provision of poverty alleviation and employment generation programmes.

10.6 KEY WORDS

Infant Mortality Rate: Rate of death during first year of age per thousand of live births.

Literacy Rate: Percentage of literate to total population.

Non-plan Expenditure: Non-plan expenditure is those expenditure, which do not form part of the current five-year plan. Therefore, non-plan expenditure is a kind of committed expenditure on the projects completed during earlier plans. Sometimes, non-plan expenditure is also designated as maintenance expenditure.

Plan Expenditure : All those expenditure, which are included in the current five-year plan, are known as plan expenditure. For example, expenditure on educational projects included in the Eight Plan will be known as plan expenditure during the period of ixth Plan.

Privatisation: Activities organised in the Public Sector from public resources in the form of productive enterprise, or utilities and service facilities, particularly those sub serving public, community needs, have sometimes been, transferred to the private sector. Thereby, these activities become subject to the usual market forces of cost, price and profit determination, which the public sector cannot always adhere to in pursuance of social objectives. This process of transferring activities from the public to the private sector is called privatisation.

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10.8 ANSWERS/ HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) See Sub-section 10.2.1
- 2) See Sub-section 10.2.3
- 3) See Sub-section 10.2.4

Check Your Progress 2

- 1) c)
- 2) See Sub-section 10.3.2

Check Your Progress 3

- 1) In broad sense, Social Security refers to all measures (including public and private) which aim to remove deprivation and reduce vulnerability of the people.
- 2) See Sub-section 10.4.3
- 3) See Sub-section 10.4.4

UNIT 11 INFRASTRUCTURE

Structure

- 11.0 Objectives
- 11.1 Introduction
- 11.2 The Concept: Meaning and Definition
 - 11.2.1 Meaning
 - 11.2.2 Definition
- 11.3 The Distinction between Physical and Social Infrastructure and their Scope
- 11.4 Role of Infrastructure in the Economy
 - 11.4.1 Infrastructure and Economic Development
 - 11.4.2 The Social Dimensions
- 11.5 Development of the Infrastructure at the Aggregate Level
- 11.6 Development of Physical Infrastructure in India
- 11.7 Development of Social Infrastructure in India
- 11.8 Let Us Sum Up
- 11.9 Key Words
- 11.10 Some Useful Books
- 11.11 Answers/Hints to Check Your Progress Exercises

11.0 OBJECTIVES

After going through this unit, you will be able:

- To explain the meaning and definition of infrastructure and its role in the economy;
- To describe the development of infrastructure in Indian economy and its shortcomings; and
- To differentiate between infrastructure sectors and other sectors of the economy.

11.1 INTRODUCTION

Infrastructure plays an important role in the development of an economy. The adequacy or lack of it determines an economy's success or failure in increasing production, expanding trade, reducing poverty and improving environmental conditions. In this unit, we shall, therefore, introduce to you the concept and definition of infrastructure, its role and importance in the development of economy. Distinction between physical infrastructure and social infrastructure will be explained. You will also be appraised of the progress of infrastructure made over the last 50 years and its evaluation.

11.2 THE CONCEPT: MEANING AND DEFINITION

In the present section, we explain the meaning and also define the term infrastructure.

11.2.1 Meaning

Man, with the help of natural resources and capital, produces goods in the form of raw materials, intermediate goods and final goods. These goods have to be moved from the place of production to the place of use or place of consumption. Not only the goods, but also even men have also to travel from their residence to their place of work. Thus, we need means of transportations like road transport, railways, airways and shipping for transporting goods and persons. This means that the production

process will be completed only with the help of transportation. Similarly in modern production process, factors of production have to be paid in money form. Business is also possible with money transactions. Broadly, the banks facilitate these transactions. We also need power, not only for domestic lights but also for production. Power, in the modern production process, is a very essential requirement.

All the industries, which are not themselves producing goods, but are very essential for carrying out and the completion of the modern production process are called infrastructure sector. The infrastructure sector either complements the production of goods or supplements the production process. Infrastructure sector includes all that processes which are essential in the completion of the production process.

11.2.2 Definition

Infrastructure is generally defined as the physical framework of facilities through which goods and services are provided to the public. Its linkages to the economy are multiple and complex, because it affects production and consumption directly, creates positive and negative spillover effects (externalities), and involves large flows of expenditure. Infrastructure is an umbrella term for several activities referred to as 'social overhead capital' by development economists such as Paul Rosenstein-Rodan, Ragnar Nurkse and Albert Hirschman. Neither term is precisely defined, but both comprise activities that share technical features (such as economies of scale) and economic features (such as spillovers from users to non-users). Social overhead capital, by definition, includes all those, which are not directly productive activities, but are necessary for the development of directly productive activities such as agriculture and industry. They are, usually, in the Nature of universal inputs, that is inputs required for the production of most goods and services. These inputs are distinct from product-specific inputs like cotton for cotton cloth production, iron-ore for steel production, etc.

Check Your Progress 1

- 1) Explain in one sentence the meaning of the term infrastructure.
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.....
.....
- 2) What is the difference between a producer sector and an infrastructure sector?
.....
.....
.....
- 3) Name the development economists who have referred Infrastructure as social overhead capital.
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.....
.....

11.3 THE DISTINCTION BETWEEN PHYSICAL AND SOCIAL INFRASTRUCTURE AND THEIR SCOPE

In the current economic thinking, distinction is made between the physical infrastructure and social infrastructure. In this section, we shall explain you the distinction between these two terms and their scope in the economy.

To start with, we may reclassify the sectors (as classified in the National Accounting) into four main-categories. These are:

(i) Commodity producing sectors, (ii) physical infrastructure, (iii) social infrastructure and (iv) other sectors. The details of these sectors grouped into these four categories are given below in Table 1.

Table 1 : Classification of Economic Sector

A) Commodity Producing Sectors
1) Agriculture, forestry and fishing.
2) Mining and quarrying.
3) Manufacturing.
4) Construction.
B) Physical Infrastructure
1) Power
2) Transport
3) Communication
4) Trade
5) Banking and insurance.
C) Social Infrastructure
1) Health
2) Education
3) Supply of drinking water
4) Sanitary conditions
5) Social and personal services.
D) Other Sectors
1) Public Administration and Defence.
2) All other activities.

From the sectors listed under (A), you can easily find that these sectors produce goods. Agriculture produces agricultural products like wheat, rice, cotton, jute, etc. Construction produces houses and other buildings, bridges, etc. Manufacturing converts goods from their original form produced by agriculture, mining, etc., to a new form. For example, cars, bicycles, fridges, TVs, etc. are manufactured goods. The various sectors covered under physical infrastructure under group (B) help in the production process. Power, transport, communication, trade, etc. help in the production process. The households consume electricity, use transport for pleasure trip and also directly consume the services produced by these sectors.

However, basically these sectors are taken to help the production process. Social infrastructure under group (C) includes those sectors, which help the production

process in an indirect way. For instance, health services will help to keep persons healthy, cure their diseases, etc. This will reduce absenteeism at the work places. A low rate of absenteeism, in turn, will help in raising production. Similar is the role played by the education, which basically trains persons and imparts skills. This training helps in raising the workers' efficiency. Thus, the sectors listed under (C) are helpful in the production process but in an indirect way. Not only that, in many case the services of these sectors may be consumed directly. For instance, after getting education, a person may not enter into the production process, as in the case of educated housewife. These examples could be multiplied. Moreover, a person may receive education for self-development rather than for skill formation. Finally, in Table 1, under group (D) we have listed other sectors like Public Administration and Defence, and the remaining activities in the society. It is hoped that a student, with a little knowledge of the economic sectors in an economy will be in a position to distinguish between the infrastructural sectors and other sectors in the economy. With this background, let us now shift to the role of infrastructure in the economy.

Check Your Progress 2

1) State the sectors covered under physical infrastructure:

.....
.....
.....

2) What are the sectors covered under social infrastructure?

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.....
.....

11.4 ROLE OF INFRASTRUCTURE IN THE ECONOMY

Infrastructure is essential for households, firms and governments to function. The social overhead capital has a pervasive impact on economic development and human welfare. The adequacy or lack of infrastructure largely determines an economy's success or failure in increasing production, expanding trade, coping with population growth, reducing poverty or improving environmental conditions. Adequate infrastructure helps in raising productivity and lowering costs in the directly productive activities of the economy. It has to expand fast enough to accommodate and facilitate growth.

11.4.1 Infrastructure and Economic Development

The precise links between infrastructure and economic growth are still open to debate. However, the historical experience reveals that the level and rate of growth of aggregate output is related positively with the level and rate of growth of infrastructure activity. The World Bank Development Report for 1994, which focuses on infrastructure for development, brings out a strong positive relationship between the level of GDP and infrastructure stocks per capita. The World Bank study reveals that 1 per cent increase in the stock of infrastructure is associated with 1 per cent increase in the GDP in an economy. Infrastructure contributes to economic development both by increasing productivity and by providing amenities, which enhance the quality of life. The services provided lead to growth in production in several ways. The availability of adequate infrastructure facilities is imperative for the overall economic development of a country. Infrastructure adequacy helps determine success in diversifying

production, expanding trade, coping with population growth, reducing poverty and improving environmental conditions. They raise the productivity of other factors, including labour and capital. Infrastructure is thereby often described as an “unpaid factor of production”, since its availability leads to higher returns obtainable from other capital and labour. Infrastructure services are intermediate inputs to production and any reduction in their costs raises the profitability of production, thus permitting higher levels of output, income and/or employment. Typically, as incomes rise, the composition of infrastructure changes significantly. For low-income countries, more basic infrastructure - water, irrigation, and (to a lesser extent) transport is important. As these economies mature, most of the basic Consumption demands for water are met; the share of agriculture in the economy shrinks, and more transport infrastructure is provided. The share of power and telecommunications is greater in high-income countries.

Further, as an economy develops, infrastructure must adapt to support changing patterns of demand. The shares of different components of infrastructure such as power, road, railways and telecommunications in the total stock of infrastructure increase as compared to those of basic services such as water supply and irrigation with economic development.

The kind of infrastructure put in place also determines whether economic growth can eliminate or reduce poverty. Most of the poor reside in rural areas, and the growth of farm productivity and non-farm rural employment is linked closely to infrastructure provision. An important factor in China’s success with rural enterprises has been a minimum package of transport, telecommunications, and power at the village level. Rural enterprises in China now employ more than 18 per cent of the labour force and produce more than a third of China’s GDP.

11.4.2 The Social Dimensions

11.4.2.1 Impact on the Environment

The relationship between infrastructure sector and the environment is complex. Infrastructure’s linkages to the environment, as to poverty, are felt both through its effects on the quality of life and on economic productivity. These effects may be positive as well as negative depending on the nature of infrastructural development. Negative environmental impacts often result from a failure to take account of interdependence among infrastructure sectors. For example, under-investment in sewage relative to water supply in many places has led to harmful contamination of water reserves, exacerbated flooding, and reduced the health benefits from investments in water supply. Poor management of solid waste and inappropriate disposal further complicates wastewater disposal and urban street drainage. There are also many positive aspects for synergies among activities in infrastructure and other sectors to increase both environmental and economic benefits in urban areas. For example, reclaimed landfill sites and wetlands used for sewage treatment can be developed into recreational parks. Duckweed ponds can serve both as wastewater treatment and a source of high-quality protein feedstock for animals. Methane can be extracted from sewage treatment plants and from the decomposition of organic matter in landfills and used as fuel. Compost from organic solid waste can restore soils, and properly treated municipal sewage and wastewater can be used for irrigation. Recycling of municipal solid waste can reduce the requirements for virgin raw materials, such as trees for pulp. Technical and economic requirements may not make these options attractive or feasible in all cases, but examples do exist of their current application even in some of the least developed countries.

11.4.2.2 Impact on Health

Inadequate infrastructure can have multiple effects on health, and thereby on labour productivity as well as quality of life. Improvements in water supply and sanitation have a large impact in reducing death rate from major water-borne diseases and reducing the severity of disease when it occurs. It is interesting that the health benefits are not assured merely by access to the physical infrastructure of water supply. Adequate sanitation is critical to the reduction in incidence and severity of diseases and thus planning for both water supply and sanitation needs to be better integrated. In addition to the obvious linkage between water and sanitation and health, the quality of transport and communication infrastructure can affect access to health care. Air pollution and safety hazards connected to motor transport - accidents on congested routes - also affect death rate, particularly in densely populated areas, where the poor are often concentrated.

11.4.2.3 Impact on Work Efficiency of Man

Infrastructure developments, such as improved transport, which reduce workers' time spent on non-productive activities or which improve health status (for instance, through better access to clean water and sanitation), raise the economic returns on labour. By the same token, the lack of affordable access to adequate infrastructure is a key factor in determining the nature and persistence of poverty. Inadequate access affects the time allocation of the poor and thus inability to engage in income-earning activities or activities which would have a greater impact on the household's welfare.

11.4.2.4 Linkages to Poverty

The main point from the above discussion of infrastructure's linkages to productivity and health, and its implication for poverty is not that the provision of infrastructure is often highly unequal, as is so often the case with other resources as well. Rather, the way in which infrastructure is provided and especially the way in which it is financed, have implications for the potential to mitigate poverty and reduce inequalities in the longer term. The impact on low-income individuals' access to infrastructure depends on the options available, and the poor as a group have fewer or less attractive options than the rich.

Check Your Progress 3

- 1) Adequate infrastructure helps in raising
- 2) Briefly state the relationship between the infrastructure and economic development.
.....
.....
.....
- 3) Explain the impact of infrastructure development on environment of a nation.
.....
.....
.....
- 4) How a lack of health facilities affect the labour productivity and thereby the development of the economy?
.....
.....
.....

11.5 DEVELOPMENT OF THE INFRASTRUCTURE SECTOR AT THE AGGREGATE LEVEL

In this section, we will discuss the development of the infrastructure in India at the aggregate level i.e. adding all the components like, transport, banking, communication, etc. This is analysed by considering the total value added by it (or total income generated by this sector), annual growth rates and its share in the Gross Domestic Product of India. Data for this, for the period 1950-51 to 1994-95 for different years are given below in Tables 2 and 3.

Table 2 : Growth of Infrastructure in India - At 1980-81 Prices
(Rs. in crore)

Year	Physical Infrastructure	Social Infrastructure	Total
1950-51	8,728	2,561	11,379
1960-61	13,503(4.46)	3,581(3.05)	17,084(4.15)
1970-71	21,213(4.62)	5,261(3.92)	26,474(4.48)
1980-81	33,298(4.61)	7,041(2.96)	40,339(4.30)
1990-91	64,241(6.79)	12,128(5.59)	76,369(6.59)
1994-95	82,248(6.37)	14,896(5.27)	97,144(6.20)

Data Source: Based on National Account Statistics for various years.

Note: Figures in parentheses are annual growth rates.

The income generated by the infrastructure sector over a period of 44 years at 1980-81 prices, has increased, by about 8-9 times whereas at current prices the increase is by 252 times. At constant prices, the growth rate for the first three decades i.e. during 1950s 1960s and 1970s was 4.15, 4.48 and 4.30 per cent per annum. During the eighties, there was an acceleration in the growth, which rose to 6.59 per cent per annum. In the first 4 years of the current decade, the growth is slightly lower at 6.20 per cent.

Share in the GDP: Percentage shares in the Gross Domestic Product (GDP) of the infrastructure sector are given in Table-3. At the beginning of the plans in India, the share of infrastructure in the GDP at constant prices was 26-27 per cent. Over the period this percentage share has grown to about 38 per cent by 1994-95. In terms of current prices during the same period, the relative share has increased from about 26 per cent to more than 38 per cent.

Table 3 : Share of Infrastructure in the GDP
(Percent)

Year	At 1980-81 prices			At current prices		
	Physical	Social	Total	Physical	Social	Total
1950-51	20.36	6.18	26.54	20.26	6.03	26.29
1960-61	21.47	5.69	27.16	24.61	5.74	30.35
1970-71	23.46	5.82	29.28	24.30	5.32	29.62
1980-81	27.20	5.75	32.95	27.20	5.75	32.95
1990-91	30.26	5.71	35.97	30.38	5.86	36.24
1994-95	32.77	5.93	38.70	32.27	5.97	38.24

Data Source: Based on data contained in the National Account Statistics for various years.

A split into physical infrastructure and social infrastructure reveals that both at constant and current prices, it is the share of the physical infrastructure which has increased. The share of physical infrastructure increased from about 20 per cent in 1950-51 to about 33 per cent by 1994-95. Against this increase, the share of social infrastructure in the GDP, both at constant and at current prices, has remained at around 6 per cent.

11.6 DEVELOPMENT OF PHYSICAL INFRASTRUCTURE IN INDIA

Now we proceed to discuss the development of infrastructure in India at the disaggregated level. For the sake of simplicity, we shall confine to discuss important components such as Power, Telecommunications, Road, Rail and Port transport. Electricity generation in the country, which was only 4.1 billion units (kwh) in 1947 increased to about 480 billion units for the year ended March, 2000, marking a compound annual growth rate of 7.5 per cent. Despite this, the power supply has lagged behind the growth in demand. At the commencement of the Ninth Five Year Plan (April 1997), country faced shortage of around 21 per cent during peak hours and a shortage of about 9 per cent on an average. Corresponding figures at the end of March 2000 were 20 per cent and 8.5 per cent. The main reasons for the shortfall in supply and demand are deficiencies in project management, problems related to externally aided projects, law and order problems and resource constraints. Although coal, oil, gas and hydroelectric potential constitute the conventional sources of electricity generation, coal-based thermal power plants and hydropower have been the mainstay. It is assessed that 78 per cent of the country's hydel potential remains as yet unexploited. Besides, wind and solar energy are also available for tapping. There is little doubt that coal-based generation will continue to be the bedrock of India's power sector for the foreseeable future. But with logistic and environment-related issues coming to the fore, an integrated medium- and long-term fuel policy for power needs to be hammered out urgently.

Households and agricultural sectors have shown maximum growth in consumption in the last three decades. Household consumption is certain to remain a high-growth area whereas growth in agricultural consumption is expected to stabilise. Long-term projections indicate a fairly stable division of demand with the domestic and agricultural sectors together accounting for about 47 per cent of the total with commercial, industrial and others making up the remaining 53 per cent.

Telecommunications: Telecommunications is now universally acknowledged as one of the prime movers of the modern economy. Hence it has a vital importance for a developing economy like India. There is a large unsatisfied telecommunication demand, which needs to be addressed at the earliest.

The telecom network in India today is one of the largest telecom network in Asia. With over 35 million lines, it is the 14th largest in the world. Yet, in India, there are only 1.3 telephones per 100 persons while the world average is over 10. In India, more than 21 lakh consumers are in the queue waiting for a telephone line. The demand for telephones services is expected to be of the order of 310 lakh lines by the year 2001 and 640 lakhs by 2006. The current services network of the Bharat Sanchar Nigam Ltd., and Mahanagar Telephone Nigam Ltd. has been around 122 lakh subscribers, with another 21 lakh in the waiting list. Thus an additional 190 lakh telephone lines would be required to be added in the next five years and another 330 lakh in the subsequent five years to meet the expected demand. Of this, BSNL and the MTNL aims at putting in an additional 103 lakh lines by 2001 and another 190 lakh by 2006 through internal accruals (assuming a growth rate of 13 per cent

sustainable through internal accruals beyond 1996). The rest of the demand, which should be about 90 lakhs by 2001 and an additional 140 lakh by 2006, is expected to be met by the private sector. Added to this, there is the demand for cellular mobile services in India. This is expected to be of the order of 20 lakhs by 2001 and grow to 50 lakhs by 2006.

Transport: Roads in India, for the purpose of their management and administration, are divided into National Highway, State Highways, district roads and village roads. Under the Constitution, responsibility for the development and maintenance of National Highways rests with the Central Government, while all other roads are the responsibility of the state governments concerned. While the National Highways are intended to facilitate medium and long-haul intercity passenger and freight traffic across the country, State Highways are supposed to carry the traffic within the state. Together, they provide the main mobility function in the transportation system. District roads and village roads serve to connect villages to provide accessibility and market linkages. Major district roads provide the secondary function of linkages between the main roads and the rural roads.

Presently, the National Highways are being developed, maintained and managed under an agency system. The overall responsibility including planning, budgeting, standardisation is handled by the Ministry of Surface Transport. The Government of India has, however, under an Act of Parliament in 1988, established the National Highways Authority of India (NHAI) for developing, maintaining and managing the National Highways as a single agency. Presently, the functions relating to externally-aided projects, implementation of the policy of private sector participation and development of wayside amenities along the National Highways have been assigned to NHAI. From 1951 to 2000, the average yearly growth of road traffic has been of the order of 8 to 10 per cent. Freight traffic has increased from 6 BTK (billion tonne kilometer) in 1951 to 850 BTK in 2000 and passenger traffic from 23 BPK (Billion Passenger Kilometers) to 2000 BPK during this period. Factors that contributed to this are flexibility, door-to-door service, reliability and speed. In line with the increase in traffic carried by roads, the total number of vehicles has also grown from 3 lakh in 1951 to 372 lakh in 2000. It is expected that the total number of registered vehicles will increase to 600 lakh by the year 2005. However, the main road network comprising of National and State Highways has not matched this traffic growth. Much of the expansion of the road network has been through building the rural roads constructed to provide connectivity to rural masses, although 50 per cent of the villages are still to be connected with all-weather roads. The expansion of National Highways has been only about 55 per cent from about 20,000 km. in 1951 to 34,800 km. in 2000 and of State Highways by 118 per cent from 60,000 km. in 1951 to 137,100 km. in 2000.

The main roads have also not kept pace with the traffic demand in terms of their quality. Out of the total 165,000 km. length of National and State Highways, only 2 per cent of their length is four-lane, 34 per cent two-lane and 64 per cent single-lane.

Inadequate road networks have led to higher transportation costs, which have also severely eroded international competitiveness of the Indian economy.

Ports: India has 12 major ports and the primary responsibility for development and management of these ports rests with the Central Government. These ports are governed by the Major Port Trusts Act, 1963, which enables these ports to conduct regulatory as well as commercial functions. The State Governments administer 139

intermediate and minor ports. Each major port has a Board of Trustees representing various interests.

The total capacity as on March 31, 2000 in all major ports was about 258 million tones. Most Indian ports are operating at more than 100 per cent capacity utilisation, and yet are inefficient when compared to other ports in the region. One reason for this anomaly is that due to certain economic compulsions, the general cargo berths are often used to load or unload bulk cargo such as coal. This temporarily increases capacity utilisation of the ports.

The major ports account for 95 per cent of total traffic handled. During the decade 1951-61, traffic growth was only around 5.2 per cent per annum. Between 1961 and 1971, it increased to around 6.8 per cent per annum and slowed to 4.4 per cent in 1971-1981. However, between 1981 and 1991, traffic grew faster by 8-9 per cent per annum. It further increased by 7.1 per cent during the period 1992-93 to 1999-2000.

Over time, the commodity composition of traffic handled at major ports has also undergone a substantial change. Petroleum and petroleum products accounted for only 8 per cent of the total traffic in 1950-51 but today account for over 41 per cent.

Railways: Till 1994, railways including its allied services have been entirely in the public sector. However, from 1993-94, some of the services like catering in the coaches have been privatised. Still Railways, in spirit, continues to be Government controlled. The Annual Budget of the Ministry of Railway is put-up before the Parliament for its approval.

For the purpose of administration, Railways in India, is divided in 6 zones. These are Central, North-Eastern, North-East Frontier, Southern, South Central and Western.

Over the period 1950-51 to 2000-01, the railways have made substantial progress. Over the period of 50 years, the freight traffic of the railways have increased by more than 8 times and the passenger traffic by 6 times.

As far as rolling stock is concerned, there is a decline in the total number of locomotives (Engines) from 8,209 in 1950-51 to 6400 by end-March, 2000. This is mainly due to a decline in the steam engines from 8,120 in 1950-51 to just 160 by 1999-2000. Over the period these steam engines have been replaced by diesel and electrical locomotives. Diesel locomotives have increased from just 17 to 4500 and electricals from 72 to 2500 between 1950-51 and 1999-2000.

In line with the shift from steam engines to diesel and electrical engines, there is an increase in electrical coaches from 460 to 3,692 about 9 times over the 50 years period. There is an increase in the conventional coaches by about 8 times, from about 88 thousand in 1950-51 to 725 in 1999-2000. As against these, the increase in wagons is about 36 per cent only i.e. from 206 thousand in 1950-51 to 298 thousand in 1999-2000.

Thus the increase in wagons, which are used for transportation goods is very low. This is both a cause and consequence of shift in the goods traffic from railways to the roadways. Whereas in 1950-51 the distribution of goods traffic between the railways and the roads was 75:25 by 1999-2000, this has turned to 25:75. This means the total goods traffic originating in India, whereas in 1950-51, 75 per cent was carried by the railways, in 1999-2000 only 25 per cent went to railways.

Plan allocation to the railways, starting from the 1st Plan are given in the following:

**Table 4 : Plan Expenditures
(Rs. Crore)**

Plans	Expenditures			Percentage shares	
	Railways Transport	Total Transport	Total Plan	Transport as % to total Plan	Railway
1. First	217	434	1,960	22.1	11.07
2. Second	723	1,100	4,672	23.5	15.48
3. Third	1,326	1,983	8,577	23.1	15.46
4. Fourth	934	2,522	15,779	16.0	5.92
5. Fifth	1,523	4,078	18,991	14.1	5.25
6. Sixth	6,585	13,841	109,292	12.7	6.02
7. Seventh	16,437	29,582	220,216	13.4	7.46
8. Eighth	27,202	53,966	434,100	12.4	6.20

Whereas in current prices and in absolute terms the Plan expenditures of Railways have increased by 125 times, the share has declined from more than 11 per cent to about 6.3 per cent.

Check Your Progress 4

1) Write a very brief note on development of the power sector in India.

.....

2) The telecommunication sector in India is not small in absolute term. Explain.

.....

3) For the purpose of their management, the roads in India are divided intoParts.

.....

4) India has major ports and the primary responsibility for development and management of these ports rests with the

5) Write a brief note on the development of railways in India since 1951.

.....

11.7 DEVELOPMENT OF SOCIAL INFRASTRUCTURE IN INDIA

We have seen above in Section 11.3 that Social Infrastructure comprises of health, education, drinking water supply, sanitary conditions and social and personal services. Here, we will discuss briefly, the development of some of these sectors over the period.

Health: In India there has been manifold increase in the health facilities. There has been a development in all types of pathology: Allopathy, Ayurveda, Homeopathy and Unnani. All these various methods of treatment of human illness have developed over the period. However, data on development are available only for allopathy.

These data reveal that over a period of 50 years i.e. 1951 to 2000, number of doctors per lakh of population have increased by three fold i.e. from 17 doctors in 1951 to 52 doctors per lakh of population. This gives an annual growth rate of only 2.43 per cent. For the same period, number of beds for lakh of population have increased from 32 in 1951 to 101 in 2000, which gives an annual growth rate of 2.56 per cent. Similarly, number of hospitals have increased from 0.75 in 1951 to 1.66 in 2000. This gives a growth rate of only 1.73 per cent per year.

Education: Education is another important social infrastructure. When we look at the figures of expansion in schools, we find that number of schools (these are primary, middle, high and higher secondary and senior secondary schools) have increased from 2.31 lakh in 1951 to 11.56 lakhs in 2000. This gives an annual growth rate of about 3.22 per cent.

Expenditures on Social Infrastructure

Expenditures by the government both by the central and states, have increased substantially over the successive plans. These figures are, however, at current prices. These data reveal that expenditures on education in terms of per capita increased from mere Rs.5 in 1950-51 to Rs.564 in 1999-2000, an increase of more than 9 per cent per annum. Per capita expenditures on health have increased from Rs.2 to Rs.96, an annual increase of about 8 per cent between 1950-51 and 1999-2000. Finally, on social security per capita expenditures between 1950-51 and 1999-2000, have increased from Re.1 to Rs.69, an increase of about 10 per cent per annum.

Check Your Progress 5

- 1) In India doctors per lakh of population have increased from in 1951 to in 2000.
- 2) Per capita expenditure on education has increased from in 1950-51 to in 2000.

11.8 LET US SUM UP

Infrastructure plays an important role in the development of an economy. The social overhead capital has a pervasive impact on economic development and human welfare. The adequacy or lack of infrastructure largely determines an economy's success or failure in increasing production, expanding trade, coping with population growth, reducing poverty or improving environmental conditions. Adequate infrastructure helps in raising productivity and lower costs in the productive activities of the economy. It has to expand fast enough to accommodate and facilitate growth. Further, as an

economy develops, infrastructure must adapt itself to support changing patterns of demand. The shares of different components of infrastructure such as power, transport and telecommunications in the total stocks of infrastructure increase as compared to those of basic services such as water supply and irrigation with economic development.

The kind of infrastructure put in place also determines whether economic growth can eliminate or reduce poverty. Most of the poor reside in rural areas, and the growth of farm productivity and non-farm rural employment is linked closely to infrastructure provision. An important factor in China's success with rural enterprises has been a minimum package of transport, telecommunications, and power at the village level. Rural enterprises in China now employ more than 18 per cent of the labour force and produce more than a third of China's GDP.

Infrastructure contributes to economic development both by increasing productivity and by providing amenities, which enhance the quality of life. The services provided lead to growth in production in several ways.

In India, however, infrastructure has not received due attention, it deserves. The share of infrastructure in the total GDP in India has been very low. The share of physical infrastructure in the GDP remained below 25 per cent. Even now the share is below even 33 per cent. This is much lower when compared with 50-55 per cent in the industrialised countries and 45-50 per cent in many developing countries. Electricity generation in the country which was only 4.1 billion units (kwh) in 1947 increased to about 480 billion units for the year ended March 2000, marking a compound annual growth rate of 7.5 per cent. Despite this, the power supply has lagged behind the growth in demand. At the end of March 2000, the country faces shortage of around 19 per cent during peak hours and a shortage of about 8 per cent on an average. Although, coal, oil, gas and hydro-electric potential constitute the conventional sources of electricity generation, coal-based thermal power plants and hydro-power have been the mainstay. It is assessed that 78 per cent of the country's hydel potential remains as yet unexploited.

The main reasons for the shortfall in supply and demand are deficiencies in project management, problems related to externally-aided projects, law and order problems and resource constraints.

The telecom network in India today is not small in absolute terms. With over 12 million lines, it is the 14th largest in the world. Yet, In India, there are only 1.3 telephones per 100 persons when the world average is over 10. In India, more than 21lakh consumers are in the queue waiting for a telephone line.

The main road network comprising of National and State Highways has not matched this traffic growth. Much of the expansion of the road network has been through building the rural roads constructed to provide connectivity to rural masses, although 50 per cent of the villages are still to be connected with all-weather roads. The expansion of National Highways has been only about 55 per cent from about 20,000 km. in 1951 to 34,1000 km. in 2000 and of State Highways by 11.8 per cent from 60,000 km. in 1951 to 131,000 km. in 2000.

The main roads have also not kept pace with the traffic demand in terms of their quality. Out of the total 165,000 km. length of National and State Highways, only 2 per cent of their length is four-lane, 34 per cent two-lane and 64 per cent single-lane.

Inadequate road networks have led to higher transportation costs, which have also severely eroded international competitive-ness of the Indian economy.

Railways in India have been developed so far only in the public sector. However, there has not been development of this sector at the required rate. Consequently it is fast losing its traffic to the road transport, specially the goods traffic. The increase in wagons, which are used for transportation of goods is very low. This is both a cause and consequence of shift in the goods traffic from Railways to the Roadways. Whereas in 1950-51 the distribution of goods traffic between the Railways and the Roads was 75:25 by 1999-2000, this has turned to 25:75. This means of the total goods traffic originating in India, whereas in 1950-51, 75 per cent was carried by the Railways, in 1999-2000 only 25 per cent went to railways. The key problem faced by Indian ports is low productivity.

The major factors contributing to lower productivity of ports are:

- Operational constraints such as frequent breakdown of cargo handling equipment due to obsolescence and wrong
- Inadequate dredging and container-handling facilities;
- Inefficient and non-optimal deployment of port equipment;
- Lack of proper coordination in the entire logistics chain.

Containerization, which brought about a technological revolution in the transportation world is still to make an impact in India. By 1993-94, container traffic was accounting for only 6.8 per cent of total traffic. Indian ports 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 US \$ 250 million a year. Container delays at Indian ports cost US \$ 70 million a year.

11.9 KEY WORDS

Natural Resources: These are provided by the nature to an economy, free of cost.

Commodity Producing Sector: These are sectors in the economy whose output are goods in physical form. These are basically agriculture, mining, manufacturing, construction, etc.

Working Efficiency of Man: It is the ability of a man to produce goods and service when employed in a factory.

Tonne Kilometer: Movement of one tonne of goods for one kilometers. Arithmetically = Tonne × kilometers.

Person Kilometers: Person × kilometers.

1 billion = 1,00,00,00,000 = 100 crore = 1 Arab.
1 milion = 1,00,000 = 10 lakh.

11.10 SOME USEFUL BOOKS

World Bank - World Development Report,

C.S.O. - National Accounts Statistics.

11.11 ANSWERS/HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) Read Sub-section 11.2.2. and answer
- 2) Read Sub-section 11.2.1 and answer
- 3) Paul Rosenstein- Rodan, Ragnar Nurkse and Albert Hirschman.

Check Your Progress 2

- 1) Power, Transport, Communication, Trade, Banking and Insurance.
- 2) Health, Education, Drinking Water, Sanitary, Social and Personal Services etc.

Check Your Progress 3

- 1) GDP of the economy
- 2) Read Sub-section 11.4.1 and answer
- 3) Read Sub-section 11.4.2.1
- 4) Read Sub-section 11.4.2.2

Check Your Progress 4

- 1) Read Section 11.6 and answer
- 2) Read Section 11.6 and answer
- 3) 4 parts- national Highways, State Highways, District Roads, Village Roads
- 4) 11 ports, central government
- 5) Read Section 11.6 and answer

Check Your Progress 5

- 1) From 17 doctors in 1951 to 50 doctors in 2000.
- 2) from Rs.5 in 1951 to Rs.284 in 2000.

UNIT 12 ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

Structure

- 12.0 Objectives
- 12.1 Introduction
- 12.2 Carrying Capacity
- 12.3 Sustainable Development
 - 12.3.1 Forestry
 - 12.3.2 Biodiversity
 - 12.3.3 Agriculture
 - 12.3.4 Water Resources
 - 12.3.5 Industry
 - 12.3.6 Energy
 - 12.3.7 Transport
- 12.4 Strategies for Sustainable Development
 - 12.4.1 Environmental Impact Assessment
 - 12.4.2 Natural Resource Accounting and Budgeting
- 12.5 Let Us Sum UP
- 12.6 Key Words
- 12.7 Some Useful Books
- 12.8 Answers/Hints to Check Your Progress Exercises

12.0 OBJECTIVES

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

- Summarise the evolution of the meaning of 'development';
- Explain what 'sustainable development' means and how it is a part of any meaningful development process;
- State the notion of 'carrying capacity' and how sustainable development involves respecting the carrying capacity of ecosystems;
- Outline methods by which the process of development can become sustainable;
- Identify the main issues relating to sustainable development for some of the major sectors of the economy;
- Describe two of the strategies that can be applied to projects, activities and policies to work towards making them more environmentally friendly.

12.1 INTRODUCTION

"Development" is a major objective of governments and societies across the world. Countries and societies have, for many years, been classified in terms of their state of development as underdeveloped and developed and then as developing and developed. More recently, the terms "south" and "north" are being used to categorise "developing" and "developed" countries respectively. Nevertheless, whatever the language, the primary preoccupation is with the status of development.

The term 'development' actually refers to a process rather than a state of reality, and even the term developed is misleading for it suggests that the countries so described have reached a stage such that no further development is required. However, this is not true and all societies and nations, however developed, can develop further and are only developed in comparison to those less developed than them.

The notion of development has had an interesting history. When it first began being used to describe countries, it referred almost exclusively to the levels of economic development or growth that had been achieved. Therefore, countries were considered developed in direct proportion to how rich they were in economic terms. European countries, with many colonies and, consequently, with large revenues, were described as more developed than those which did not have colonies and, consequently, were economically poorer.

However, at the turn of the century and especially after the First World War (1914-1918), many people began to question this understanding of 'development'. It was felt that economic growth alone could not be considered development unless it promoted equity. Consequently, a country that had, as a part of its 'empire', colonies that were impoverished, could not be considered developed. Similarly, if within a country, the wealthy were few and the many poor, then again such a country could not be considered developed, even if its wealth was very great.

In recent times such thinking has been translated into what are known as social or human development indicators, which include education, health, sanitation, access to drinking water, nutritional levels, and civil rights. The United Nations Development Programme (UNDP) now brings out a Human Development Report that ranks countries in terms of their development status with regard to these various social and human indicators.

In the 1960s, another type of concern started being expressed about the definition of development. With the growing realisation of what we were doing to our natural resources, people started questioning whether a country could be considered developed if its economic growth was based on the destruction of nature and natural resources. Considering natural resources are the most fundamental of resources, even more fundamental than financial resources, any process of growth which destroyed these resources is bound to fail in the medium to long run. Such a development strategy is not likely to be sustainable. The destruction of natural resources may result in development of present but the future of the economy is in jeopardy. Out of such realisations has grown the notion of sustainable development.

Development therefore was redefined to mean only that economic and social growth that was equitable and that could be sustained over time. The term "sustainable development" began to be used to distinguish between the old idea of development and the new, sustainable, one.

Sustainable development has been described as development which:

"...meets the needs of the present without compromising the ability of future generations to meet their own needs." (Our Common Future 1987)

12.2 CARRYING CAPACITY

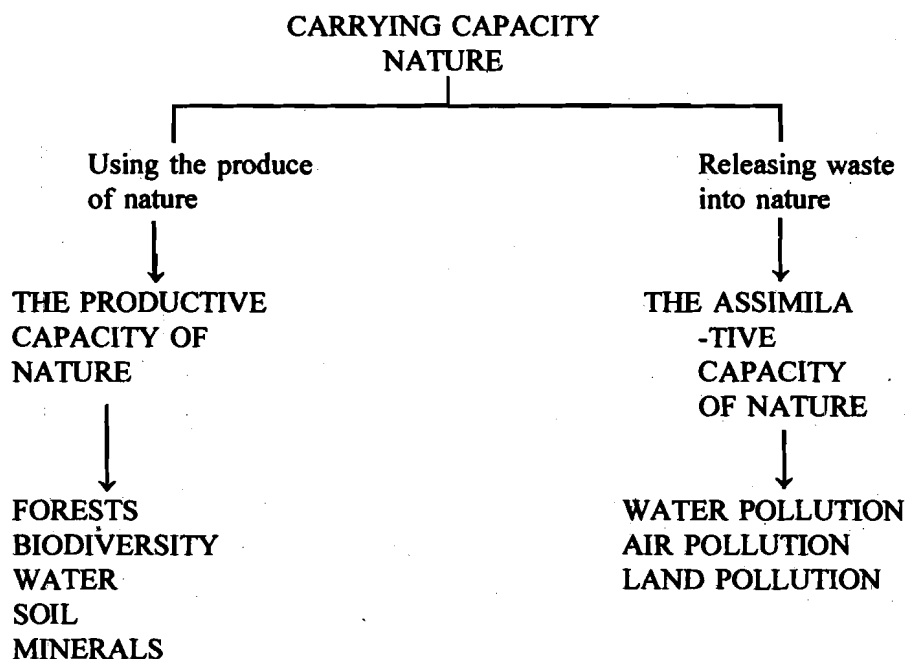
To fully understand what sustainable development means, we must first understand the notion of carrying capacity. The carrying capacity of an organism or a system is its ability to meet demands and withstand pressures without doing permanent damage to itself or compromising its ability to meet future demands and withstand future pressures.

For an ecosystem, this could mean its ability to tolerate extraction (its productive capacity) and withstand pollution (its assimilative capacity) without getting degraded.

To understand this better, consider that even human beings have a carrying capacity. We can donate only those amounts of blood safely that our body can replace in a short time. Similarly, we can assimilate a certain amount of caffeine or other pollutants, without they permanently damaging our health. However, if our body was drained of blood or if we were exposed to the type and quantity of pollutants that were beyond our ability to assimilate, then we would not only seriously injure ourselves, but in extreme cases also die. In any case, our ability to produce and function would be impaired. If this draining and polluting our body continues over time, we are very like to die.

A similar thing happens in nature. For example, take a river. The river has an ability to function without permanent damage even if a certain amount of water is withdrawn from it and taken for human consumption. However, if we drain the river of most or all of its water, then the river, as an ecosystem, dies or gets permanently damaged. Also, a river has the ability to assimilate some pollutants and to biodegrade them so that they do not damage the ecosystem. However, if we dump the types or quantities of pollutants that are beyond the assimilative ability of the river, then the river gets seriously damaged and even dies.

The diagram below shows how we interact with nature and assess its carrying capacity:

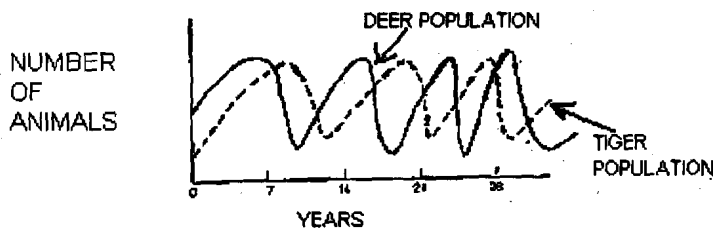


Therefore, one way of ensuring sustainable development is to ensure that the process of economic growth does not take from nature more than it is able to regenerate, and does not pollute nature beyond its ability to assimilate.

The carrying capacity of a resource is not finite. Through better management and technology, the carrying capacities of various natural ecosystems can be enhanced. For example, through the application of genetic engineering, mainly in the form of better seeds and faster growing strains of crops, the productivity of cultivated plants and of the land on which they grow can be increased. The application of fertilisers and irrigation can also enhance the productivity of land. Similarly, the assimilative abilities of an ecosystem can also be enhanced. Recently, there have been successful experiments with earthworms - called wormiculture - where the introduction of earthworms in compost pits can significantly enhance the ability of the ecosystem to break down the waste matter and assimilate the biodegradable substances, consequently enhancing the quality of the soil.

Human beings are perhaps the only living creatures on Earth that have the ability to exceed the carrying capacities of ecosystems to a point where these ecosystems get degraded or destroyed. In the rest of nature, there are in-built checks and balances to prevent the over-utilisation of natural resources. The consumption of resources by animals is determined by the availability of such resources.

So, for example, if the number of deer in a particular area increase to a point where they start consuming more grass than can be regenerated, then the availability of grass goes down and this, in turn, adversely affects the population of deer. Similarly, if the number of tigers in an area increases to a point where they eat up the other prey animals faster than these animals can reproduce, then, very soon there is not enough food for these tigers and their population begins to decline. Their population rapidly reaches a point where the balance between their population and the population of the prey animals is restored without any permanent damage being done. This cycle is endlessly repeated. The diagram below explains this relationship.



Also, in nature, nothing is waste. The 'waste' of one creature is the food of another and is finally an input to one part or another of the ecosystem. Therefore, a whole host of insects and microorganisms live in and off the excrement of various animals. These insects and microorganisms break down (biodegrade) this excrement to a point where it becomes nourishment for the soil. Similarly, dead plants and trees and even the carcasses of animals, become homes and food for other creatures who, in the process, help them to be assimilated by the ecosystem.

Only human beings, because of the rate at which they consume, the technologies that they have developed for facilitating consumption, and the nature and quantum of the waste they throw out, have a tendency of exceeding the carrying capacity of the ecosystems they depend on. The problem is aggravated by the fact that human beings have the ability to immunise themselves from the consequences of degrading their immediate environment by transferring their attention to other, remote, ecosystems, once their immediate ones are destroyed. Therefore, it is important to devise ways and means by which the interaction of human beings with the rest of nature is kept at sustainable levels.

Check Your Progress 1

1) What do you understand by the term "carrying capacity".

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.....

2) How can the carrying capacity of natural ecosystem be enhanced?

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.....

12.3 SUSTAINABLE DEVELOPMENT

Sustainable development is not something that can be achieved overnight. The path to sustainability is through ensuring that every project, every activity, every scheme and every policy is progressively made environmentally friendly till it itself becomes sustainable and promotes overall sustainability. Given below are some of the issues, listed sector wise that need to be focussed on in our search for sustainable development

12.3.1 Forestry

Sustainable development within and through the forestry sector means that we should harvest from forests only that much of timber and non-timber produce that it can regenerate. So, for example, if a forest grows at the rate of 2 % a year, our harvest should never be greater than the increment. This is similar to the principle of judicious financial management where people are expected not to eat into the capital of their savings but live off its interest.

Take not from the capital of nature, but only from its interest.

What we take and how we take is also important. For example, if we harvest the young and growing trees, then in the long term, the forest will die. Similarly, if we concentrate our harvesting on only one part of the forest, then even though overall we might not have extracted more than what is regenerated, the area from which we have over harvested might become barren.

12.3.2 Biodiversity

Biodiversity or biological diversity is defined as the variability of ecosystems, species and genes. It is now recognised that the maintenance of biodiversity is critical for human well-being and survival.

There are many types of ecosystems on earth. For example, there are the seas and oceans, rivers and lakes, forests, deserts, grasslands, islands, and mountains. Within these categories, there are sub-categories. In India, for example, there are sixteen major types of forests and hundreds of subtypes. Similarly, there are tropical oceans and temperate oceans; there are cold and hot deserts and various types of mountain ranges and grasslands. Biodiversity at the ecosystem level means the variability of ecosystems.

Within each ecosystem, there are various species. Human beings are one such species, but there are others like tigers, lions, elephants, peepal trees, deodar trees, gulmohar and neem trees, peacocks, crows, bees, flies, etc. Biodiversity at the species level means the variability of species.

Within each species, each individual is different. Among human beings, for example, though we are all of one species, each one of us is physically and mentally different from the other: genetically variable. There are similar variations among individual members of all species. Biodiversity at the genetic level means the variability of individuals of the same species.

Conservation of biodiversity implies ensuring that the variability among ecosystems, species and genes does not become less than what is natural and that, in any case, no ecosystem or species becomes extinct.

There are many reasons why it is important to conserve biodiversity. Some of the major ones are described below.

Medicine: a large proportion of the medicines that are used in the world, especially the non-allopathic ones, are derived from plants and animals. Yet, we have only investigated about one percent of the known species for their medicinal and other values. And of the species likely to exist on earth, perhaps only twenty percent have so far been discovered and identified. If specie that has either not yet even been identified, or whose medicinal and other uses have not yet been investigated, becomes extinct, then the cure to some of the diseases that are currently plaguing the world, like AIDS and cancer, might be lost for ever.

Even if species that we have already investigated and found to be of no use, becomes extinct, there are grave dangers. For, though these species might be of no use in curing the ailments we know about today, what is the guarantee that some new diseases might not appear in the future, just as AIDS did some years back. And then we might discover that its cure died with the extinction of the species that we thought was valueless. Therefore, in order to ensure that our options are not foreclosed, we need to ensure that each and every species is conserved. This is the option value of biodiversity.

Agriculture: All the plants we cultivate or the animals we domesticate, are derived from wild species. In order to keep open the option of developing new strains for cultivation and domestication, we have to ensure that wild species are conserved. Also, if cultivated or domestic strains have to be immunised against pests or diseases, then most often wild species have to be used to create such immune strains.

Biotechnology: This is a new area, which perhaps offers the greatest promise, among all technologies, to provide answers to some of the major problems facing the world: those of poverty, hunger and disease. However, the 'raw materials' of biotechnology are wild plants and animals. It is from the various plants and animals that genes can be found which, through genetic engineering, give new hope of solving many of the old problems. For example, the green revolution in India was a result of genetic engineering and, whatever might be the problems with it, has certainly raised the productivity of food grains in India. However, if species in the wild became extinct, then this 'raw material' of genetic engineering would no longer be available. We, therefore, must keep this option open also.

Web of life: All life is interconnected like the web of a spider. Each species is directly or indirectly dependent on all others. Therefore, if one species becomes extinct, then this affects all the species. The effect might not be felt immediately, but eventually the chain reaction starts.

For these and other reasons, it is important that biodiversity is conserved if development has to be sustained.

12.3.3 Agriculture

The soil and water resources that are a basis for agriculture, also need to be sustainably used. Soils are susceptible to wind and water erosion and to degradation. When the vegetative cover on soils is destroyed, the binding that such a cover provides to the soil is removed. These exposed soils become prone to erosion. Further, with the removal of vegetative cover, the soils get exposed to the direct rays of the sun and dry up quickly. This also lowers their productivity and makes them susceptible to erosion. The leaf and vegetative litter that is generated by the green cover enriches the soil and provides it with humus. When the vegetative cover disappears, the soils also degrade.

Cultivation and ploughing on slopes, without adequate measures to prevent soil erosion also aggravates the loss of soils. Another factor that degrades soil is unsuitable cropping patterns. If the soils are not allowed to rest adequately between crops, they lose their productivity. Also, if the nutrients of the soil are not replenished through natural fertilisers, the soil degrades.

Though chemical fertilisers can, for a short time, enhance the productivity of soils over a long period, they are not able to replenish all the trace elements in a soil and therefore cannot sustain long-term productivity. Eventually, more and more chemical fertilisers have to be applied to support a declining productivity. This not only reduces productivity but also significantly raises the financial costs of cultivation.

The over use of chemical pesticides or the use of inappropriate pesticides, also degrades the soil. Such pesticides, apart from killing crop pests, also kill the various insects, birds and microorganisms needed for regenerating the soils. The residues of such pesticides find their way into the water and the atmosphere, significantly degrading the environment and adversely affecting human health. If applied carelessly, they also contaminate the crops and become an additional health hazard.

Water logging is another threat to soils. Whereas this problem would be discussed in detail in the section on irrigation, suffice it to say here that large tracts of productive lands have become fallow because of salts and alkali contamination caused by rising ground water tables.

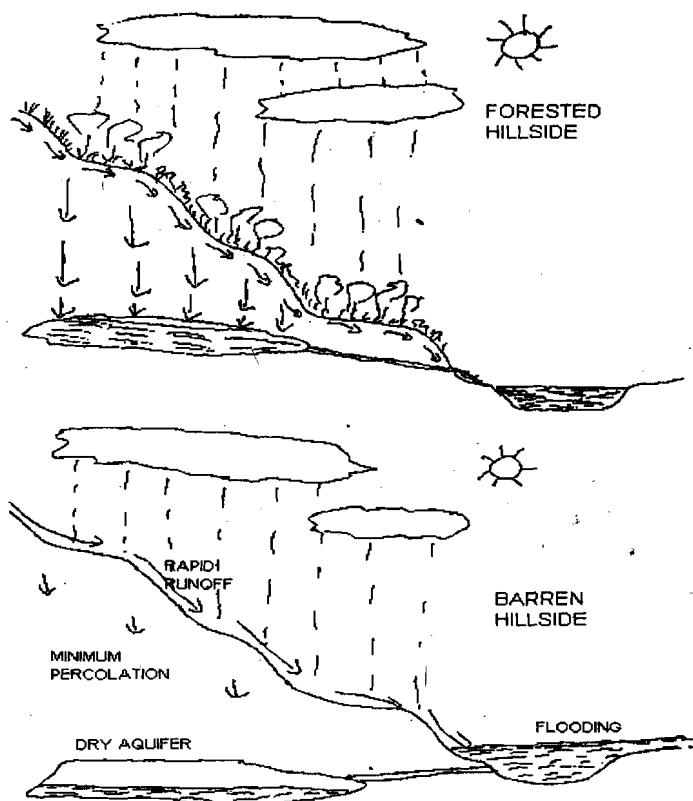
Deforestation in the catchment areas also results in floods and droughts, further compromising the productivity of our soils. Where catchments are denuded of their forest and other vegetative cover, the soils become susceptible to wind and water erosion. The summer sun dries them and when the rains come, they all flow down with the water. The lack of vegetative cover on the slopes also results in very rapid water runoff resulting in inadequate recharging of the underground aquifers. This means that where catchments are degraded, there is much greater water in the streams and rivers in the rainy season than there was when the catchments were vegetated. In addition, the topsoil and other debris, which was stabilised on the hillsides by the vegetation also now flows off the barren landscape. The resulting volume of water and silt is too much for the riverbeds to contain and so there are floods.

Also, as this silt reaches the plains and the river slows down, the silt sinks to the bed of the river, silting it up. This results in the capacity of the riverbed becoming less so that even normal flows of water cannot be contained and there are again floods.

Conversely, in the dry season, as the aquifers have not been properly recharged, there is little water in the streams and a drought occurs. Initially floods might enhance the quality of land in the flood plains, as they bring down the topsoil from the catchments. However, in a few years, all the topsoil has been eroded and only rubble is deposited. This significantly lowers the productivity of soils (see figure on next page).

Another threat to sustainable agriculture is the destruction of wild biodiversity. All the plants we cultivate today are derived from the wild. In the case of hybrid varieties, like the green revolution varieties, the cultivated strains are derived from the genes of wild plants. In order to ensure food security and to keep open the options of developing new strains of cultivable plants, we need to ensure that wild plant varieties are conserved. We also need the wild varieties to meet threats to our existing cultivable varieties (for details see section on biodiversity).

Water is, after air, perhaps the most critical human resource. The location of human settlements, throughout history, has more often been determined by the location of water sources than by any other single factor. And historically many societies and cultures have perished because they could not manage their water resources properly.



Water is essentially a renewable resource, much of it subject to yearly or half yearly cycles. The water (or hydrological) cycle moves water from one place to another and changes some of it from one form to another. The monsoon winds pick up moisture from the Indian Ocean and distribute it, as precipitation, throughout the country. In this process, they also convert salt water into fresh water. There is also the melting of snows and glaciers, in the Himalayas, which feed many of our rivers.

To ensure that water is sustainably used, it has to be ensured that the hydrological cycle does not go awry. This involves, to start with, ensuring that rainfall patterns do not get disrupted. Though the relationship between deforestation and macro climatic changes is not yet well understood, there is good evidence to believe that deforestation can cause serious disruption in micro rainfall patterns.

But, more important, the degradation of vegetative cover in the catchments seriously disrupts, as already described, the water cycle and causes floods and droughts. Deforestation and degradation of the upper reaches of the Himalayas also causes micro climatic changes, which affect the ice and snow, melt regimes, thereby disrupting the hydrological cycle.

So, the first task is to ensure that water is available where required, in the right quantity and at the right time. The second task is to ensure that this water is clean and wholesome. Ordinarily, the water that comes down as rain or through ice or

snow melt is pure and not polluted. However, certain types of air pollutants can contaminate rainwater even before it reaches the ground. A common result of such pollution is called 'acid rain'. Acid rain occurs when the atmosphere is polluted with sulphur dioxide and nitrogen oxides, which mix with rainwater to form sulphuric acid and nitric acid. Such rain, instead of nourishing the soil and vegetation, destroys them. Thousands of hectares of forests in Europe and North America have been 'burnt' by acid rain. The soil there has become acidic and lost much of its productivity and the lakes and rivers have been polluted, resulting in extensive fish kills.

Apart from atmospheric pollution, water is also subjected to pollution on the ground. Silt, domestic wastes, agricultural run off and industrial wastes pollute our lakes, streams, rivers and even the ocean. Such polluted waters become unfit for most human uses. Due to rampant water pollution in India, most of the surface water is unfit for human consumption. Much of it is also unfit for bathing and some of it even for agricultural use. When polluted water is fed into industries, there is a danger that it would damage the machinery or otherwise adversely affect the industrial process. Polluted water also degrades the environment, particularly affecting the fauna and flora that either live in that water or partake of it.

Water is stored or conveyed on the surface of the earth in or through various water bodies. These natural bodies have an ecological process of their own and include lakes, ponds, seas, oceans, springs, streams and rivers. These are not mere receptacles or passages of water but also habitats for hundreds of living creatures: fish, insects, plants, snakes and reptiles. These water bodies also energise the water, just as they are energised by it. Water, as it rests in or passes through them, is oxygenated, cleaned and mineralised. If there are pollutants in the water, the ecological processes act to biodegrade them and to clean up the water again. Rocks and rapids in the streams and rivers help mix oxygen in the water, which the fish and other creatures living in the water then breathe for their survival.

When the water is polluted beyond its capacity to assimilate the pollutants, then these various functions of the aquatic and marine ecosystems get compromised. Similarly, if large quantities of water are extracted from such water bodies, then again the ecosystem gets affected and cannot perform normally. Where excessive pollution or extraction continues over time, the ecosystem gets irretrievably damaged, sometimes becoming incapable of supporting even the most basic life forms. Apart from the loss of fish and other life forms, this means that the water body is no longer able to cleanse the water and the water either becomes useless for human use. It has to be subjected to an expensive process of artificial cleansing before it can again be used.

Polluted water also poses a threat to its users. The threat to the environment has already been explained. It also threatens human health and it is estimated that 10,000 children die every day in India due to water related diseases. Also, water that contains large quantities of silt does damage to human made structures, silting up dams and tanks and damaging hydroelectric turbines.

Given the growing human population and the consequent increase in the demand for water, controlling the use and wastage of water, especially 'treated' water, is a high priority. What is required is 'demand side management' of water. The current patterns of water use are not only inequitable but also wasteful and unsustainable. While the well to do in a city throw away 12 to 16 litres of 'treated' water every time they flush their cistern, the poor in the same city have to line up for hours to get even one bucket of water. Our houses and industries are not designed to be water efficient and millions of litres of water are wasted because of leaking taps or outdated industrial processes.

12.3.5 Industry

Industrial growth is seen as central to economic development. However, in order for industry to be environmentally sustainable and for it to contribute to overall sustainable development, it must be environmentally friendly, or 'green', from 'cradle to grave'. This means that right from the setting up of the industry and the extraction of raw material and the generation of energy, through its production process and the nature of the produce, to the decommissioning of each plant and the final disposal of each product, the sector must be green.

If the Industrial sector is not environmentally friendly, it puts unsustainable pressures on the environment, both by using more natural resources than can be replaced and discharging more waste than can be assimilated. By using natural resources inefficiently and by polluting needlessly, an industry takes away the opportunity for additional production out of the same natural resources and the consequent additional discharge of pollutants. So, industries that are green not only negatively affect the environment but also take away the opportunity for additional industrial production.

In India, both water and electricity are subsidised, in the sense that their true cost, especially if you include the environmental costs, are not recovered from the consumers. Water and electricity are also two of the resources that are most often wastefully used. It is therefore imperative to conduct environmental audits of industries and of the industrial sector. To make such audits meaningful, standards must be prescribed for the quantity of water and electricity to be used in the production of various types of goods and the provision of various services.

It is preferable to prevent pollution, rather than to try and control it once it has happened. In order to prevent pollution, it is important that production technologies must also be green. The use of green technologies is not only good for the environment but also economically beneficial. Environment friendly technologies consume less water and electricity per unit of production and produce less waste. The costs of raw materials and of waste disposal are also, therefore, minimised, along with the expenditure on electricity and water. Besides, many green processes link up production processes in a way that the wastes of one process become the raw materials of another. Therefore, industries can be located and designed in ways such that the quantity of waste is minimised and the cost of purchasing raw materials is cut down

Another area of concern is that of packaging. Again, because garbage collection and disposal is done at public cost, not chargeable to the industry, many industries pack their products in an environmentally unfriendly manner. The use of plastics and other toxic or non-biodegradable materials as packaging material, needs to be controlled. The products themselves must be such that they or the materials they are made of, could be recycled once their life was over. This would not only save on raw materials but also lessen the problem of garbage control.

12.3.6 Energy

Power projects have historically had significant social and environmental costs associated with them. The two most common types of such projects in India are hydro and thermal power projects.

Hydroelectric projects: Hydroelectric projects, especially those involving large dams, usually have the more significant environmental and social impacts. Some of the main impacts are listed below:

Upstream of the dam

- 1) Degradation of the catchment. This can be due to the project, partly because of project activities and partly because of increased pressures on the remaining catchment, once a part has been submerged under the reservoir. Apart from the adverse impacts, this has on the biodiversity of the region, it also often has critical implications on the livelihood needs of the local people.
- 2) Of course, degraded catchments, whatever be the cause of degradation, can also have significant impacts on the dam project itself by, among other things
 - Increasing the silt load
 - Causing erratic water runoffs
 - Posing a possible threat of surplussing due to sudden increase in water flow
- 3) There is the threat of backwater build-ups and consequent floods and destruction.
- 4) There is also the threat of reduced water availability upstream, as the water is required to fill the reservoir

At the reservoir and project site

- 5) Dust Pollution
- 6) The threat to rim stability
- 7) The potential for breeding vectors
- 8) Adverse impact on the aquatic ecosystem and biodiversity
- 9) Possible adverse Impact on fisheries
- 10) Impact on the water quality including potential for mineral contamination of water
- 11) Submergence and destruction of flora and fauna
- 12) Submergence of agricultural land
- 13) Submergence of grazing land
- 14) Submergence of sources of local fuel wood and other non timber forest produce
- 15) Reservoir induced seismicity
- 16) Adverse micro climatic changes
- 17) Human Displacement

Downstream

- 18) Adverse impacts on aquatic ecosystem and biodiversity downstream
- 19) Adverse impact on fisheries downstream
- 20) Adverse impact on water availability downstream
- 21) Adverse impact on water pollution levels downstream, especially due to reduced river flow
- 22) Possible salt water ingress
- 23) Threat from sudden releases of water
- 24) Threat from dam failure

Command Area (in multipurpose projects)

- 25) Threat of water logging and salinity
- 26) Threat of vector breeding

Unfortunately, there are many projects in India and in other parts of the world, which manifest one or more of these adverse impacts.

Hydroelectric projects in India are often not investigated properly for their environmental and social impacts. Their environmental and social viability is, therefore, not clearly established. Besides, the measures to mitigate the social and environmental impacts are often inadequate. Also, activities related to the assessment and mitigation of environmental and social costs are often started very late and then hurried along so as not to delay project implementation.

There has been an unfortunate tendency, in recent years, to grant hydroelectric projects "conditional clearance", with the stipulation that environmental assessment and the mitigation of adverse impacts be carried on *pari passu*. Some prominent beneficiaries of such clearances are the Sardar Sarovar Project in Gujarat, the Indira Sagar Narmada Project in Madhya Pradesh, and the Tehri Project in Uttar Pradesh.

What such conditional clearances imply is that the project is given a go ahead before its environmental impacts have been assessed and, consequently, its viability established. It also usually means that the assessment is never properly done and mitigative measures are delayed to a point where they become ineffective.

Rehabilitation: Hydroelectric projects also take a heavy toll of the human beings living in the submergence areas, who are made homeless in the thousands. Till recently, there were very inhumane rehabilitation policies, where, by and large, the "oustees" were handed a small amount of money in lieu of their homes, livelihood and heritage, and asked to fend for themselves. Recently, there has been a serious effort to change all this. Some of the newer projects, notably the Sardar Sarovar Project in Gujarat, offer land for land and other facilities to the "project affected people".

Despite this, the cost paid by the project affected people, mostly poor villagers and tribals, is horrific. The benefits of the electricity generated goes mostly to the rural rich and to the urban populations.

Coal Based Thermal Power Projects: Though the adverse environmental and social impacts of thermal power projects are not as dramatic as that of dams, they are still significant. This is especially so if one assesses the impacts from "cradle to grave", i.e., including the impact of mining the coal and of its transportation to the power plant.

The major environmental and social impacts of thermal power stations are listed below.

Construction phase

- 1) Displacement of people
- 2) Dust pollution
- 3) Local level disturbance
- 4) Destruction of fauna and flora

Operational phase

- 5) Air pollution
- 6) Water pollution
- 7) Withdrawal of water
- 8) Land pollution, mainly through fly ash
- 9) Noise pollution
- 10) Micro climatic changes

Unfortunately, thermal power plants are often not properly assessed for their environmental and social impacts, and alternative sites and technologies are rarely explored.

Many examples of thermal power plants, which were posed for environmental clearance without a proper appreciation of the environmental issues, are available. Some of the notable examples are described below.

The Dholpur Thermal Power Project, Rajasthan

This power project is to be located on the banks of the Chambal River, adjacent and, in part, within the National Chambal Sanctuary. The efforts of the Environmental Appraisal Committee to get the state government to shift this power station even a few kilometres, so that the impact on the sanctuary could be minimised, were unsuccessful. Consequently, the project was not accorded clearance for many years and has only recently managed to get cleared, in its initial location, but with very stringent environmental conditions. The loss of time and the additional costs of environmental safeguards could all have been prevented if the project had initially been shifted to a more suitable site.

Kayamkullam Power Project, Kerala

This project is to be located adjacent to a fragile system of Kayals (backwaters) in the state of Kerala. The project envisages dredging the Kayals in order to get earth fill material for the project site. Such dredging would destroy the kayal as an ecosystem and have significant adverse impact on the fisheries in the region. Again, efforts to have the site shifted by a few kilometres were not successful. The project was, therefore, not recommended for clearance. Later, the Ministry of Environment and Forests cleared the project, overruling the recommendations of its own appraisal committee. However, if the project does come up it will have unacceptable environmental costs.

Perhaps the three most critical issues concerning thermal power stations, in terms of their social and environmental impacts are:

- 1) The location of the plant. Inappropriate locations imply heavy environmental and social costs and an inability to adequately mitigate these costs without making the project economically non-viable.
- 2) The use and discharge of water. As water is a scarce commodity in most parts of the country, the use of water by power stations results in greater, sometimes critical, deprivations for the local populations.
- 3) The dumping of fly ash. Fly ash is perhaps the single greatest hazard to the environment, to land and to human health.

12.3.7 Transport

The contribution to air pollution levels, especially urban air pollution levels, of the transport sector is significant. This is primarily because of the concentration of vehicles in urban areas, the technology prevalent, the poor state of maintenance of vehicles, the poor quality of fuel and, sometimes, local climatic conditions.

Air pollution levels in most of our cities are much above the prescribed limits, especially for suspended particulate matter (SPM). Some recent statistics are given below.

**Average Annual SPM in ug/m³
WHO Recommended Standard 75 ug/m³**

Agra	451.93
Mumbai	226.00
Delhi	543.00
Dhanbad	364.64
Ludhiana	380.17

Patna	230.91
Pune	226.07
Calcutta	394.00
Surat	283.81
Varanasi	489.23

Source: Reports of the National Environmental Engineering Research Institute and of the Central Pollution Control Board

In the last few years, the government has taken some important steps in tackling this problem. They have notified motor vehicle emission standards and introduced a system by which motor vehicles need to have pollution checks regularly. They have banned the sale of cars, which are not fitted with catalytic converters, in the metropolitan cities. They have introduced lead free petrol. Efforts are also on to improve the quality of fuel being supplied to upgrade motor vehicle technology, to ban the sale of loose oil at petrol pumps and to phase out of Delhi, for example, public vehicles which are over fifteen years old.

However, as long as the number of vehicles on the road keep increasing, the problem will only get worse. The only sustainable answer lies in improved public transport, which makes the use of private vehicles, or of individual public transport like taxis and three wheelers, less popular. Along with these, the other options like better and different fuels, and greener technologies, must be pursued.

For travel and transportation between towns and cities and across the country, some of the greenest options are no longer available. River transportation, if properly managed, can be a very environmentally friendly method of travel. Unfortunately, many of our rivers have now become too silted to be able to allow this option. However, if the earlier discussed methods of catchment area treatment and afforestation are implemented, then it might again become viable to desilt our rivers and other waterways and make them navigable for transporting people and goods.

Rail transport is also preferable to road transport. However, in the last few decades, there has been a much greater focus in developing the roadways sector rather than the railways. This strategy also needs to be reconsidered.

Check Your Progress 2

1) What is biodiversity?

.....

2) Discuss the basic issues regarding sustainable development in the area of water resources?

.....

3) Discuss the economic & social costs associated with hydroelectric power projects.?

.....

12.4 STRATEGIES FOR SUSTAINABLE DEVELOPMENT

The strategy for making the development process greener and environmentally sustainable involves ensuring that each sector and, within a sector, each project, scheme or activity, is environmentally friendly and contributes to a development process, which is sustainable.

There are various methods and instruments available to assess the environmental impact of such projects and activities and to ensure that they are environmentally viable. Two of these are environmental impact assessments and natural resource budgeting and accounting.

12.4.1 Environmental Impact Assessment (EIA)

Conducting an EIA of a project or an activity involves developing an environmental impact statement and then assessing the expected impacts of the project or activity.

An environmental impact statement (EIS) usually contains a list of the activities and processes that might have an adverse impact on the environment. These are then described in terms of the nature and severity of impact on the various elements of the environment. So, for example, an EIS of a proposed power station may look something like this:

ENVIRONMENTAL PARAMETERS

Activities	Air quality	Water availability	Water quality	Land	Soil	Ground water	Local inhabitants
Clearing of site	L	L	L	H	H	L	H
Land filling	L	L	M	H	H	L	M
Transportation of building materials	H						M
Construction of buildings	H			M	M		
Withdrawal of water		H	H			H	H
Discharge of water		M	H				H
Discharge of flyash	H	H	H	H	H	H	H
Discharge of SO ₂	H		M		M		H
Transportation of coal	H			H	H		H

H = high impact, M = medium, L = low, Blank = no impact

An assessment of the impacts, as laid out in the statement, is based on various factors. The purpose is to determine whether the proposed activity or project is environmentally viable and, as such, deserves environmental clearance. To decide this, various questions are considered. These include whether it is possible to prevent

or mitigate the anticipated adverse impacts? How severe are the final impacts? How valuable or unique is the affected ecosystem? And whether the benefits from the proposed activity or project justify such impacts?

12.4.2 Natural Resource Accounting and Budgeting

Till recently, environmental costs were rarely taken into consideration in the national planning exercises. This is because financial and economic experts do the planning and they do it in primarily a financial and economic context. However, natural resources are the most fundamental of human resources, certainly more fundamental than financial and economic resources.

Given the rapid environmental degradation, the world over, in the last few decades, many countries have begun to realise that unless environmental costs are incorporated into their national accounting system, a true picture of the health of their economy would not emerge. Perhaps motivated by this, the Government of India, in its policy statement on sustainable development, has undertaken to present before Parliament, each year, a natural resources budget.

Also, the Government of India has prepared a National Environmental Action Programme (NEAP) and is a party to Agenda 21. Both these documents further reiterate the commitment of the government to move towards a model of sustainable development.

In countries of the North, environmental economics is now a popular and fast growing discipline. Unfortunately, the models developed in these countries are not always appropriate to India. Despite this, there has been a concerted effort by various countries of the North and many international agencies to persuade India and other countries to accept their model of natural resources accounting.

The imperative for natural resource accounting seems, on the face of it, to flow from an urge to integrate natural resource parameters into the national accounting systems. This means that the GNP calculations of a country would reflect, each year, the use and accrual of natural resources. For specific projects and activities, a system of natural resource accounting would mean that the financial and economic costs of natural resources will be reflected in the cost benefit analysis carried out to assess the viability of the project.

Unfortunately, the methods currently being used by many countries of the North for generating natural resource accounts, have many problems. Some of them are outlined below:

Classification of Nature: The first problem relates to classification of nature into that which has economic value or, as economists sometimes describe it, has alternate uses, and that which has no economic value for it has no alternate use. The belief that some elements of nature have no alternate use and therefore no economic or financial value seems misplaced. Perhaps, if one takes a very narrow definition of "value" and "use", then one could argue this. However, it is well established that each individual living organism represents a unique element of biodiversity. Therefore, it is difficult to imagine even a single plant or creature that has no use.

Attaching Value: Even more difficult is the method by which economic and financial value is attached to elements of nature. Unfortunately, economics as a science can only put a replacement value to those goods and services, which are inputs into, or

outputs of, an economic process. Much of nature, critical as it is to human survival, is not an input or an output of an economic process. Therefore, for economists, it is either invaluable or valueless. As economics cannot handle the notion of invaluable, it tends to consider much of nature as valueless.

As an example, how can economics ascribe a realistic financial or economic value to the last surviving pair of a species of a bird, which currently might have no known economic function? Given the present methodology, such a pair would ordinarily be considered without economic value. Yet, this very species might, if it survives, become of very great economic value in the future. Nevertheless, as there is no way of predicting with any certainty whether this would happen or not, ascribing value becomes an impossible task.

The North-South Divide: Though the difficulties in ascribing economic value to elements of nature are common all over the world, their implications are far greater for countries of the South. Whereas in countries of the North most people have enough surpluses after meeting their immediate basic needs, to be willing to pay for recreation and long term needs like environmental conservation, this is not so in countries of the South. Therefore, if the economic value of the environment was to be determined through market forces, as is envisaged in many of the prevailing methodologies, it is unlikely that in countries like India the poor people would be in a position to choose long term needs over their immediate ones. Market forces would, consequently, make it difficult to conserve and protect anything.

Also, given the vast differences in the buying power of different segments of society in countries of the South, and between the North and the South, it is difficult to ensure socially just utilisation of natural resources. This is especially so if decisions were to be made solely or primarily on an economic basis.

Undervaluing Nature: There is also a tendency of governments, dominated by imperatives for economic growth, to systematically undervalue the contributions of natural ecosystems to the economy and to human welfare in general. For example, a forest can be contrasted with a human made industry. Whereas the human made industry requires inputs of capital, energy, raw materials, maintenance, replacement, and a labour force to make it productive, the forest, as an industry, produces goods and services critical to humanity without requiring any of these. It generates its own energy, produces its own raw materials, maintains and replaces itself, and goes on for eternity without needing any human input. However, the economic value attributed to forests never reflects this miracle of productivity and renewability.

The Solution: But what is the solution? Perhaps one way out is to adopt a dual approach of both budgeting and accounting. The elements of this approach are described below.

First, a natural resource, say water, needs to be budgeted in physical terms and allocations made to meet the basic ecological and social requirements. This means that, in a river, the minimum flows required for maintaining the ecological balance of the river and consequently its ability to cleanse itself and support life, must be assured.

Once this is done, then the surplus water must next be allocated for meeting the basic needs of the human populations dependent on the river. This includes their drinking water requirements and other basic needs. If any 'surplus' remains, this can then be subjected to market forces and its use determined based on the paying capacity of the various contenders.

In such a model, where there is industrial demand for water, then the industrial sector must pay for enhancing lean season flows by, for example, regenerating catchments, in order to produce larger surpluses. There is also, then, an economic incentive to invest in water saving technology, as the real cost of water is being charged.

Check Your Progress 3

1) What is Environment Impact Assessment?

.....
.....

2) What are the methods of natural resources accounting and budgeting?

.....
.....

12.5 LET US SUM UP

In this unit we started by discussing how the term ‘development’ was used over the years and how its meaning expanded from mere economic growth to growth with equity and, now, growth which is sustainable. We then went on to discuss the notion of ‘carrying capacity’.

We discussed how every ecosystem has a limited capacity to produce and assimilate. When these limits are exceeded, the ecosystem degrades and becomes dysfunctional. A dysfunctional ecosystem cannot sustain its contribution and slowly dies.

We then went on to discuss how the carrying capacity of an ecosystem defines the limits within which the development process can be sustained.

Next, we looked at various sectors of the economy and discussed how each sector can be made more environmentally friendly, thereby contributing to sustainable development. We saw that making sectors environmentally friendly not only helped the environment but directly and indirectly boosted the economy.

Finally, we discussed two of the strategies that could be used to ensure that development activities, projects and policies were environmentally friendly and thereby supportive of sustainable development. The first of these strategies, conducting environmental impact assessments, involved assessing the impacts of activities, projects and policies on different elements of the environment. Based on such an assessment, a decision can be made about which of these are environmentally viable.

The developing of natural resource accounts and budgets is another strategy, which allows us to make sure that natural resources are optimally allocated and are sustainably used.

12.6 KEY WORDS

Acid Rain: Precipitation that has been polluted by acid.

Aquatic: Of water, living in or near water.

Aquifer: A natural underground or sub-surface water reservoir.

Biodegrade: To break down something into ingredients that can be assimilated by nature.

Carrying Capacity: The capacity of an organism or a system to meet demands and withstand pressures without doing permanent damage to itself or compromising its ability to meet future demands and withstand future pressures.

Catchment Area: The area from which the water flows into a river, lake or other water bodies.

Development: The process of economic growth, which is equitable and sustainable.

Equitable: Just to all sections of the society.

Marine: Relating to the sea.

Runoff: The flow of water down a slope or off a surface.

Sustainable Development: A process of development that "...meets the needs of the present without compromising the ability of future generations to meet their own needs."

12.7 SOME USEFUL BOOKS

Human Development Report, 1998: United Nations Development Programme, Oxford University Press, Delhi.

Ismail Serageldin and Andrew Steer (editors)(1994), *Making Development Sustainable: From Concept to Action*, 1994, The World Bank, Washington DC.

National Environmental Programmes - India, 1994, Ministry of Environment and Forests, Government of India, New Delhi.

National Strategy for Conservation and Sustainable Development, 1990, Report of the Core Committee, Ministry of Environment and Forests, Government of India, New Delhi.

Our Common Future (1987), The World Commission on Environment and Development: Oxford University Press, Delhi.

Report of the Task Force on Conserving Ecologically Fragile Systems, 1996, Planning Commission, Government of India, New Delhi.

Sustainable Development, 1995, Special Issue of The Administrator, Journal of the Lal Bahadur Shastri Academy of Administration, Mussoorie, New Age International (P) Limited, Publishers, New Delhi.

Towards Sustainable Development of Society - Imperatives and Perspectives, 1993, Special Issue of the Indian Journal of Public Administration (IJPA), Indian Institute of Public Administration, New Delhi.

12.8 ANSWERS AND HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) Read Section 12.2 and answer
- 2) Read Section 12.2 and answer

Check Your Progress 2

- 1) Read Sub-section 12.3.2 and answer
- 2) Read Sub-section 12.3.4 and answer
- 3) Read Sub-section 12.3.6 and answer

Check Your Progress 3

- 1) Read Sub-section 12.4.1 and Answer
- 2) Read Sub-section 12.4.2 and Answer

UNIT 13 ROLE OF AGRICULTURE

Structure

- 13.0 Objectives
- 13.1 Introduction
- 13.2 Role of Agriculture in Economic Development
- 13.3 Importance of Agriculture in Indian Economy
 - 13.3.1 Contribution to National Income
 - 13.3.2 Contribution to Employment
 - 13.3.3 Contribution to Foreign Exchange Resources
- 13.4 Agriculture in the Pre-and-Post Independence Period
- 13.5 Green Revolution and Agricultural Growth
 - 13.5.1 Growth in the Pre-and-Post Green Revolution Period
 - 13.5.2 Food Grains
 - 13.5.3 Non Food Grains
 - 13.5.4 Yield Performance of Principal Crops in the Pre-and-Post Green Revolution Period
 - 13.5.5 Agricultural Growth in the Early and Late Green Revolution Period
- 13.6 Factors Influencing Productivity
- 13.7 Let Us Sum Up
- 13.8 Key Words
- 13.9 Some Useful Books
- 13.10 Answers/Hints to Check Your Progress Exercises

13.0 OBJECTIVES

This unit introduces you to the performance of Indian agriculture since independence. This will help you to be familiar with the importance of agriculture in Indian economic development. Growth process of Indian agriculture in various phases and the factors that have influenced productivity growth, are also analysed. After going through this unit, students will be able to:

- describe the role of agriculture in economic development;
- discuss the growth performance of Indian agriculture in the pre and post green revolution period; and
- discuss the sources of growth of Indian agriculture, especially productivity.

13.1 INTRODUCTION

Agriculture is the major sector of the Indian economy because of its contribution to the national income as well as employment of workforce. It has also contributed to industrialisation by supplying raw materials to the industries and food to the workforce employed in the industrial sector of the Indian economy. Besides contributing towards exports it has helped to substantially cut down on imports of foodgrains. On the eve of independence the state of Indian agriculture can be summed up as stagnant with deficient infrastructure, traditional technology and exploitative institutions. Nevertheless, the growth of agricultural production in India since independence has several distinguishing features. In terms of growth rates, there is a clear break with the colonial period trends in production and yields. Second, the post independence growth has two distinct phases generally termed as pre-green revolution period and post-green revolution period. Post green revolution period is marked by the adoption of new technology in few crops namely wheat and rice operating along with increased use of inputs like fertilizers and irrigation. The post green revolution period can be divided into two phases namely; 1967-68 to 1980-81 the early green revolution phase and 1980-81 to 1998-99 the late green revolution phase.

13.2 ROLE OF AGRICULTURE IN ECONOMIC DEVELOPMENT

According to Simon Kuznets the contribution of agricultural sector to overall national economic growth and development can be divided into four types. First is the product contribution, which leads to expansion of the non-agricultural sector by meeting the food requirements of this sector as well as contributes raw materials used in manufacturing products such as textiles. Secondly, agriculture makes 'market contribution' by creating demand for the products of domestic industry, including the market for producer goods as well as consumer goods. Thirdly it makes 'factor contribution' by supplying capital for investments in the non-agricultural sector. Similarly it also entails the transfer of surplus labour from agricultural sector to non-agricultural sector. Finally agricultural sector can also make foreign exchange contribution. Domestic agriculture is capable of contributing beneficially to the balance of overseas payments either by augmenting the country's export earnings or by expanding the production of agricultural import substitutes.

13.3 IMPORTANCE OF AGRICULTURE IN INDIAN ECONOMY

Agriculture is the largest sector of the Indian economy. It provides food and raw materials as well as employment to a very large proportion of the population. Being the dominant sector, the improvement or changes in the national output depend on the output in the agricultural sector. Over the years it has contributed towards capital required for its own development and made available surpluses for national economic development. The exports of primary produce earned valuable foreign exchange, which was used for import of capital goods for the development of industry and infrastructure. In India the vital role of agriculture arises out of the position the agriculture sector occupies in the overall economy of the country. Around three fourth of the total population reside in the rural areas and 64.8 per cent of the workforce according to 1991 census depend on agriculture for their living.

13.3.1 Contribution to National Income

The contribution of agricultural sector to the national income, foreign exchange and employment is a measure of the sector's importance in the overall economy of the country. Official estimates of national income and its components are available on regular basis and annually in the post independence era. However the pre-independence estimates reveal that the proportion of agriculture output to the total output in the economy had undergone a change. It was estimated to be around 57 per cent during the period 1925-29 and 53 per cent for 1931-32. Nevertheless in the post independence era, the share of agriculture in the net domestic product in 1950-51 was 50.2 per cent (table 1) and during the following decade it declined to 41.5 per cent by 1970-1. However towards the 1980's the share of the agriculture was only 36.3 per cent and it further declined by around 6 percentage points by 1990-91 for the agricultural sector. The following seven years i.e. 1990-91 to 1996-97 the decline was only 4.6 per cent points due to sharp rise in agricultural prices. In short agriculture sector's contribution declined from 50.2 per cent in 1950-51 to 30.4 per cent in 1990-91 i.e. by around 20 percentage points in forty years.

Table 1 : Net Domestic Product (Percentage Contribution of Agriculture)

All India

(at 1980-81 Prices)

Year	Percentage share	
	Agricultural Sector to NDP	Primary Sector to NDP
(1)	(2)	(3)
1950-51	50.2	57.2
1960-61	47.4	52.7
1970-71	41.5	46.5
1980-81	36.3	40.0
1990-91	30.4	32.7
1994-95	29.2	31.2
1996-97	25.8	27.6

Source: National Accounts Statistics, Quick Estimates 1998, New Delhi, Central Statistical Organisation, department of Statistics, Ministry of Planning, Govt. of India.

Although the agricultural sector has been the major contributor to net domestic product, its growth rate over the years have been very low. For the first half of the twentieth Century it was around 0.25 per cent per annum. The growth rate since independence has been found to be around 2.7 per cent per annum, which is a little higher than the population growth rate.

Table 2 : Population and Agricultural Workers

Year	Total Population in million	Rural Population in million	Percent Rural Population	As percent of total workers		
				Percent Cultivators	Percent Agri. Workers	Percent Total Workers
1951	361.1	298.6	82.7	49.9	19.5	69.4
1961	439.2	360.3	82.0	52.8	16.7	69.5
1971	548.2	439.1	80.1	43.4	26.3	69.7
1981@	685.2	525.5	76.7	37.8	22.7	60.5
1991*	846.3	628.7	74.3	38.7	26.1	64.8

Source: Various Population Census: Registrar General of India.

@ Figures of total rural population included the estimated population of Assam, whereas in respect of data on 'workers' Assam has been excluded.

* 1991 Census was not conducted in Jammu & Kashmir. Total/rural population of India includes the estimated figures of J&K. However figures of J&K workers are not included.

13.3.2 Contribution to Employment

Agriculture directly as well as indirectly has continued to be the main source of employment for a large part of the Indian Population. The decennial population censuses indicate that the proportion of workers employed in agriculture has been around 70 per cent till 1971. The share declined to 64.8 per cent in 1991, showing

a small shift towards non-agricultural sectors as is depicted by table 2. It also shows that a major section of the agricultural workers are cultivators although their share has declined over the years and that of agricultural labour has increased. Table 2 reveals that the proportion of workers engaged in agriculture has not declined as fast as the decline in the share of Net Domestic Product contributed by the agricultural sector. This implies that the rate and pattern of investment in other economic sectors have not been such as to draw away surplus agriculture labour and relieve the pressure of population on land. Moreover it implies that labour productivity in agriculture sector continues to fall relative to the productivity in other sectors of economy. Since the growth of the agricultural sector continued to be very slow it has failed to create enough opportunities for additional employment. This has resulted in a widespread unemployment and under employment of the agriculture labour force in the country.

13.3.3 Contribution to Foreign Exchange Resources

Agricultural commodities and agriculture-based manufactured commodities occupy an important place in India's export trade. In the colonial period, the major agricultural export items were raw cotton and jute, unmanufactured tobacco, oilseeds, spices tea and coffee accounting for around 49 per cent of the total value of exports. The partition of the country in 1947 reduced the agricultural surplus of the country and affected the exports of jute, cotton and hides. Nevertheless agriculture contributed around 41 per cent of the total exports of the country at the time of independence. Growth of the Indian economy resulted in the diversification of India's exports leading to sharp decline in the share of agricultural commodities. The manufacturing goods are now accounting for a larger share.

The export of the agro-based manufacturers has increased. The relevant data is placed in table 3. One may add that the share of agriculture and allied products has continually declined in response to factors like relatively low prices for the agricultural commodities, internal production, demand situation and international market conditions.

Compared with exports, the importance of imports of agricultural products in the total import trade is relatively less. In the beginning i.e. after independence the share of agricultural commodities in the total import was 39 per cent. It declined in the subsequent years. Food (cereals and cereal preparations) constituted the most important item among the agricultural commodities imported, although much of it was obtained on concessional terms and some as gifts. Nevertheless in earlier years of planning, the imports of raw cotton and jute were substantial in order to bridge the gap between demand and internal supplies, which have declined due to partition of the country. In 1950-51 their share in the total imports of the agricultural products was as high as 40 per cent. However as the indigenous production of these commodities was augmented through planned effort, their imports came down heavily and formed around 15 per cent of total imports and thereby highlighting the import-substitution effect of agricultural production. In respect of foodgrains, however there has been a spurt in imports during the decade of sixties. But due to adoption of new technology leading to a substantial increase in foodgrain production caused decline in the imports. Therefore both through exports and import substitution, the agricultural sector has contributed to the earning and conservation of foreign exchange.

Table 3a : Principal Exports from India (Value in Rs. Crore)

	1960-61	1970-71	1980-81	1990-91	1996-97
I. Agriculture & allied products	284 (44.24)	487 (31.73)	2057 (30.65)	6317 (19.41)	24239 (19.8)
I.1 Coffee	7	25	214	252	1426
I.2 Tea & mate	134	148	426	1070	1037
I.3 Raw cotton	12	14	165	846	1575
I.4 Rice	-	5	224	462	3172
II. Ores and Minerals (Excl. coal)	52 (8.09)	164 (10.68)	414 (6.17)	1497 (4.60)	3185 (2.88)
III. Manufactured goods	291 (45.33)	771 (50.22)	3747 (55.82)	23736 (72.91)	88258 (75.42)
IV. Mineral fuels and Lub (Incl. coal)	7 (1.09)	13 (0.85)	28 (0.42)	948 (2.91)	1832 (1.65)
V. Others	8 (1.25)	100 (6.52)	466 (6.94)	55 (0.17)	232(0.16)
Total	642	1535	6711	32553	118817

Source: Economic Survey, 2000-2001, Government of India

Table 3b : Principal Imports of India

(Value in Rs. crore)

	1960-61	1970-71	1980-81	1990-91	1999-2000
I. Food and live animals	214 (19.07)	3539(14.81)	380(3.03)	N.A.	N.A.
I.1 Cereal and cereal Preparation	181	213	100	182	80
II. Raw material and	527(46.97)	889(54.41)	9760(77.77)	N.A.	N.A.
II.1 Cashew (Unprocessed)	-	29	9	134	760
II.2 Crude rubber (Incl. Synth.)	11	4	32	226	719
II.3 Fibres (Wood, cotton Jute etc.)	101	127	164	259*	1557*
III. Capital goods	356(31.73)	404(24.72)	1910(15.22)	10466(24.23)	28289(23.06)
IV. Others	25(2.23)	99(6.06)	499(3.98)	N.A.	N.A.
Total	1122	1634	12549	43198	122678

Figures in parentheses show percentage of total

* Sum of wool, cotton, jute and man made synthetic fibres only.

Check Your Progress 1

1) Explain the role of agriculture in economic development.

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2) What is the importance of Agriculture in India's economic development?

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3) Tick the relevant word so as to make the statement true.

- i) Contribution of agriculture to the National income has increased/decreased with the growth in national economy.
- ii) Growth of agriculture in the independent India has been lower/ higher than the population growth.
- iii) Share of employment in the agriculture sector has declined fast/slow with agricultural growth.
- iv) Share of agriculture in the exports has declined/increased over the years.
- v) Share of agriculture in the imports has increased/decreased since independence.

13.4 AGRICULTURE IN THE PRE- AND POST-INDEPENDENCE PERIOD

Colonial agriculture was characterised as stagnant using primitive technology with exploitative institutions. Table 4 presents the growth rates of Indian agriculture in the pre-independence period from 1891 to 1946. The period of around half a century prior to independence suggests prolonged agriculture stagnation.

Table 4 : Growth Performance of Major Crop groups in Pre-independence and Post independence Period (till 1994-95).

S. No.	Major Crop Groups	Pre-independence Period 1891-1946			Post independence Period (1949-50 to 1994-95)		
		Output	Yield	Area	Output	Yield	Area
1.	Food grains	0.31	0.11	-0.18	0.47	2.52	1.72
2.	Nonfood grains	0.42	1.31	0.86	1.22	2.90	1.32
3.	All crops	0.40	0.37	0.01	0.65	2.65	1.57

Source : Agricultural statistics in Brief

The growth rate of output of all agricultural crops put together for the half century preceding independence was only 0.4 per cent per annum. Most of the growth in the agricultural output was contributed by growth in area under the crops with very little or negligible contribution by the yield per hectare. A break-down of the total agriculture output into food grains and non-food grains show diverse trend. The rate of growth for the foodgrains output was very low at 0.1 per cent per annum as compared to 1.31 per cent per annum for the non-foodgrains output. The increase in foodgrains output was very low despite some increase in the area under foodgrain crops. Obviously yield rates in this crop group was falling during this period. However relatively higher growth rate of non-foodgrains crops was largely due to greater support to commercial crops from the British rulers. This was due to their major concern for the supply of agro-based raw materials to British Industries. Later this was aimed at supporting the indigenous industries.

Thus on the eve of Independence the agriculture sector of India could be characterised as one which was stagnating. Whatever growth was there, was due to the deliberate policy of commercialization pursued by the British. Given the fact that more than half of the domestic product was contributed by agriculture sector, lack of growth in this sector become a major obstacle to the overall economic growth.

In the post independence period agriculture growth received primacy. It was necessary for economic growth that not only agriculture should grow but it should also provide an impetus to industrial growth. This objective was achieved by implementing policies and programmes having bearing on agricultural production. The basic thrust of these policies was to expand and improve the irrigation input base and improve the technologies. Another thrust was providing assurance to agriculture regarding prices and fair marketing conditions. The production performance of agriculture in the post independence period was quite impressive. Over the period 1949-50 to 1994-95 the aggregate output increased at an annual growth rate of 2.7 per cent per annum with yield increases being the major source of growth. Particularly striking, in comparison with the pre-independence period was the record of food grains having an output growth not only noticeably higher than the pre-independence period but also higher than the population growth rate registered in the recent decades. Looking at agricultural growth rate from historical and comparative prospects. It can be noted that the post independence record of Indian agriculture has been remarkable in comparison with the experience of many developed and developing countries in the initial stages of economic development.

13.5 GREEN REVOLUTION AND AGRICULTURAL GROWTH

The agriculture sector's impressive growth rate in the post-independence period was primarily due to the higher priority accorded to this sector by the Indian planners. The policy makers adopted a two-fold strategy for regenerating agriculture. The first element of this strategy was to implement land reforms in order to remove the institutional bottlenecks and the second was to undertake massive investment in irrigation and other infrastructure in order to update agricultural technology.

Although the land reforms undertaken during the mid fifties did succeed to a large extent in abolishing intermediaries, however they failed to bring about an equitable distribution in land ownership. Nevertheless this combined with large investments in irrigation and other infrastructure including extension and community development programs, resulted in substantial increases in both net area sown and gross cropped area, thus leading to noticeable increase in crop output. However the growth process of Indian agriculture was not smooth. In spite of positive agriculture policy pursued by the state one find towards the end of the fifties the Indian economy reached a critical stage in relation to food production. It however became increasingly clear that there being obvious limits to the extension of area, steps were needed to increase land yields. Therefore the subsequent decade witnessed the emergency of new production-oriented strategy for agriculture. This strategy sought in the first instance, to achieve quick break through in production in selected favourably endowed areas especially having assured irrigation. By concentrated efforts in the form of intensive use of better methods of production these area will show higher production. This intensive agricultural programme was known as Intensive Agricultural District Programmes (IADP). New institutions were set up to extend support to developmental activities in different fields. To begin with the new strategy failed to make much impact and agricultural situation deteriorated considerably during the early sixties. Consequently the country had to resort to large-scale imports of food grains. The culmination of new strategy in agriculture came about only in the mid sixties, when the high yielding varieties programmes (HYV) were successfully launched.

A major feature of the HYV technology was its package approach. New high yielding varieties seeds, fertilizers, pesticides, controlled water supply and mechanical equipment from seed drills to tractors and combine harvesters— all these agricultural inputs together formed a package. The core of this package was the miracle seed, which was developed through selective breeding to be highly responsive to fertilizer input coupled with use of pesticides and herbicides, while without a controlled supply of water the full potential of the new varieties could not develop. A major feature of the new seeds is their shorter maturing period, thus leading to increase in cropping intensity. Therefore increased yield rates coupled with higher cropping intensity led to higher growth of agricultural production in the post green revolution period.

13.5.1 Growth in the Pre-and-Post Green Revolution Period

The new technology (also known as bio-chemical technology) was introduced in India in the mid sixties for stepping up the crop output growth rates. The growth rates for the two periods i.e. 1949-50 to 1964-65, the pre green revolution period and 1967-68 to 1994-95, post green revolution period are presented in Table 5. Agricultural growth during 1949-50 to 1964-65 was as high as 3.15 per cent per annum with food grains growing at 2.82 per cent per annum, which was much below the growth rate of 3.74 per cent per annum registered by the non-food grains. Another noticeable feature of these very high growth rates were that the major foodgrains wheat, jowar, bajra and maize registered higher growth rates due to increase in area rather than yield. On the contrary, in case of rice, growth of yields was substantially higher than that of area growth rate. Even in the case of coarse cereals as a group growth rate of yield rate were higher than the area growth. Inverse was the case of total pulses as a group, which grew as a consequence of area expansion only. In fact there was deceleration in the yield growth in their case. Therefore one finds that growth in food grains production was equally shared by growth of area and yield rates. However, it is clear from the table that in the total agricultural growth major contribution was made by the growth of area as compared to growth of yield. This was more glaring in case of non-foodgrain crops. The table clearly reveals that except for wheat growth rates attained in the pre-green revolution period could not be maintained in the post green revolution period despite the adoption of new technology, in some cases growth rates were considerably lower than the earlier period i.e. pre-green revolution period. This is in spite of the fact that the two drought years 65-66 and 66-67 have been dropped from the data.

13.5.2 Food Grains Growth

The impact of the new technology on wheat production is clearly visible. Wheat production growth rate has increased from nearly 4 per cent per annum in the pre green-revolution period to 4.80 per cent per annum in the post green revolution period. However, growth rate of rice production which was over 3.5 per cent in the pre-green revolution period fell to around 2.9 per cent in the post-green revolution period i.e., a decline of approximately 17 per cent in its growth rate. For coarse cereals the decline in the growth rate was quite significant. The output growth rate of coarse cereals fell by more than 70 per cent from the pre-green revolution period of 2.25 per cent to a bare minimum rate of 0.62 per cent. Pulses also registered decline in growth rates from 1.41 per cent to 1.04 per cent. The perceptible decline in the coarse cereal and pulses production is due to the drastic decline in growth of area experienced by these crops in spite of some gains in their yield growth rates. In spite of the fall in growth rates of coarse cereal's production, foodgrains as a whole maintained a growth rate of 2.62 per cent in the post-green revolution period, which was slightly lower as compared to 2.82 per cent in the pre green revolution period. Although the major source of increase in agricultural output in the pre-green revolution period was the increase in area under the crop nevertheless growth of yield rates have also played an important role. However in the post-green revolution

period also one finds a significant contribution made by the yield rates towards the increase in the production of agricultural output. It may be pointed out that the possibility of expansion of net cropped area had almost exhausted by the late sixties i.e. towards the beginning of green revolution. Nevertheless because of irrigation expansion and adoption of HYV seeds of short duration, there has been increase in the gross cropped area due to increase in intensiveness of cropping. In fact, when one compares the early green revolution period and the later green revolution period one finds that agricultural growth has been made possible by the increasing levels in case of food grains as well as non- foodgrains.

Yield rates of foodgrains have registered an average annual growth rate of 1.36 per cent per annum in the pre-green revolution period i.e. 1949-50 to 1964-65. Whereas in the post green revolution period the growth rate of yield of foodgrain crops is much higher at 2.21 per cent. It was the significant contributing factor to agriculture growth. Table shows the yield growth rates experienced by rice wheat, Jowar, Bajra, Maize, coarse cereals, total pulses as well as foodgrains as a whole in comparison to pre-green revolution period and reverse is the case as far as growth of area is concerned. In fact the temporal comparison of two periods reveals growth of area has been quite negligible in the post green revolution period.

The growth rates for the post-green revolution period were lower than the pre-green revolution period in spite of the adoption of improved technology. Even this rate became possible due to impressive growth rate of wheat, which due to its high weight in the overall foodgrain production could compensate the fall experienced by other cereal and pulses crops. In fact some scholars have gone to the extent of describing green revolution as wheat revolution.

13.5.3 Non-food Grains Growth

The decline in the growth rates in post-green revolution period as compared to pre-green revolution period was not only limited to food grain crops. It was also experienced in the case of non-foodgrain crops. In case of oil seeds, which have not experienced any significant technological breakthrough, output growth rates have increased from 3.20 to 3.43 per cent per annum although there is a sharp decline in the case of major oilseeds like groundnut. One finds a decline in the non-foodgrains crops as a group from 3.74 to 3.20 per cent per annum.

Even in case of non-food grains growth, rates of yield are considerably higher in the post-green revolution period as compared to pre-green revolution period. One finds that the yield rates are to be significantly higher for sugarcane. Groundnut as well total oilseeds, cotton, jute and total fibers followed by potato and tobacco. It is clear that the average annual growth rate of yield of foodgrain crops was higher than that of non- foodgrain crops.

The characteristics of the growth performance during the two periods, however, differ in two important ways. First area expansion contributed significantly to the pre-green revolution agricultural growth, the post-green revolution output growth rates were realised primarily through gains in productivity because of use of new technology. Second pre-green revolution production base levels for measuring growth were substantially lower than the post-green revolution period. Maintaining the same earlier growth rate from higher base level is not an easy task in an industry marked by diminishing marginal returns.

13.5.4 Agricultural Growth in the Early and Late Green Revolution Period

It is usual to compare the performance in the pre-green revolution period with that in the post green revolution period as whole. However, the beginning of eighties makes a definite departure from the trends observed in the early phase of the green revolution period in several respects. There seems to be acceleration in the growth rate of foodgrains as well as non-foodgrains output during the period 1980-81 to 1994-95 as compared to the early green revolution period that is from 1967-68 to 1980-81. Crops such as rice, cereals as a whole, pulses and oilseeds whose growth rates in the first decade on the green revolution period had fallen much below those recorded in the pre-green revolution period are showing higher growth rates. It gives clear indications that the major inter crop imbalances in growth witnessed in the early years of the green revolution period are getting redressed to some extent in the recent period.

The comparisons of these two periods suggest that there is an increase in the growth of output of the foodgrain crops (table 6). Rice has grown at a rate of 3.48 per cent in the late green revolution period as compared 2.22 in the early green revolution period. However there is a perceptible decline in the growth of wheat output from 5.65 per cent in the early green revolution period. Among the coarse cereals there is acceleration in the growth rates of Bajra, Maize and Millets. On the whole one finds increase in growth rates for the total cereals from 2.61 per cent to 3.60 per cent. Growth in case of total pulses as well as total foodgrains has also accelerated in the post green revolution period. There is also increase in growth rates of output for non-food grains as well as all crops in the late green revolution period.

Oilseeds and pulses are generally grown in the rainfed or unirrigated areas. Even for rice 60 per cent of the area is rainfed. The encouraging performance can basically be attributed to the spread of new technology to the crops and regions lagging behind earlier. The special programmes for rice and oilseeds can also be one of the reasons. In addition one finds the increasing attention being given to dry farming and to less developed states have started yielding results. Some location specific technologies like watershed management is having some bearing on the crop yield in the dry areas. Therefore one can infer that the regional disparities in growth between irrigated and dry regions may not be as sharp as in the early years of green revolution. It was the increase in the productivity or yield levels of foodgrains which have helped in enabling the aggregate output to nearly attain the rate of growth recorded in the earlier green revolution period despite the sharp reduction in the rate of increase in aggregate area. Comparison between the early green revolution period and later green revolution period presented in table 5 clearly shows that higher growth rate of output have been achieved as a consequence of higher growth rates of yield. The growth rates of yield in the later period i.e. 1980-81 to 1994-95 are significantly higher than the earlier green revolution period in case of foodgrains crop group in general as well as individual crops barring jowar and ragi which have experienced some decline. Pulses did much better as far as the yield growth is concerned, in the later pulses as a group had experienced deceleration in the early post green-revolution period in output as well as yield rates. However one finds acceleration in their growth of output mainly because of acceleration in the yield rates. There is also acceleration in the yield rates of most of the non-foodgrain crops like sugar cane, groundnut, total oilseeds, cotton and jute. However, the gains in the foodgrain crops as far as yield is concerned continue to be higher than the non-foodgrain crops on an average in the post green revolution period.

Generally a major technological improvement in a crop would be accompanied by an upward trend in both its area and yield. An analysis of area and yield for the post-

green revolution periods suggests that only rice and wheat the two crops using HYV technology have positive rates of growth of area although lower as compared to earlier period. To sum up productivity increases is the major source of impressive growth of output in the later green revolution period.

Table 5 : All India Compound Growth Rate of Area Production and Yield of Principal Crops

Crops	1949-50 TO 1964-65			1967-68 TO 1994-95		
	A	P	Y	A	P	Y
RICE	1.21	3.5	2.25	0.64	2.91	2.34
WHEAT	2.69	3.98	1.27	1.6	4.8	3.14
JOWAR	0.99	2.51	1.49	-1.17	0.79	1.98
BAJRA	1.08	2.34	1.24	-0.88	0.76	1.65
MAIZE	2.67	3.88	1.18	-0.01	1.63	1.64
COARSE CEREALS	0.97	2.25	1.23	-1.25	0.62	1.86
TOTAL CEREALS	1.25	3.21	1.77	0.05	2.93	2.43
TOTAL PULSES	1.72	1.41	-0.18	0.13	1.04	0.9
TOTAL FOODGRAINS	1.35	2.82	1.36	0.06	2.67	2.21
SUGAR-CANE	3.28	4.26	0.95	1.65	2.99	
GROUND-NUT	4.01	4.34	0.31	0.56	1.71	1.14
TOTAL OILSEEDS	2.67	3.2	0.3	1.25	3.43	1.65
COTTON	2.47	4.55	2.04	-0.16	2.64	2.81
JUTE	3	3.5	0.49	0.17	2.19	2.02
TOTAL FIBRS	2.71	4.56	1.88	-0.23	2.49	2.69
NON-FOODGRAINS	2.44	3.74	0.89	1.3	3.2	1.72
ALL CROPS	1.58	3.15	1.21	0.36	2.87	2.02

TABLE 6 : All India Compound Growth-Rate of Area, Production and Yield of Principal Crops

CROPS	1967-68 to 1980-81			1980-81 to 1994-95		
	A	P	Y	A	P	Y
RICE	0.77	2.22	1.45	0.49	3.48	2.98
WHEAT	2.94	5.65	2.62	0.68	3.7	3.01
JOWAR	-1.15	2.04	3.22	-2.3	-0.44	1.9
BAJRA	-1.15	-0.38	0.77	-1.21	1.53	2.78
MAIZE	0.01	0.02	0	0.11	2.49	2.38
COARSE CEREALS	-1.03	0.67	1.64	-1.9	0.54	2.31
TOTAL CEREALS	0.37	2.61	1.7	-0.34	3.06	2.9
TOTAL PULSES	0.44	-0.4	-0.67	-0.31	1.67	1.85
TOTAL FOOD-GRAINS	0.38	2.15	1.33	-0.34	2.89	2.77
SUGAR-CANE	1.78	2.6	0.8	1.87	3.86	1.36
GROUND-NUT	-0.31	0.64	0.96	1.43	3	1.55
TOTAL OILSEADS	0.26	0.98	0.68	2.37	5.89	2.52
COTTON	0.07	2.61	2.54	-0.22	3.88	4.1
JUTE	1.23	2.06	0.81	-1.24	1.56	2.83
TOTAL FIBRES	0.94	2.26	1.19	1.88	4.31	2.27
NON FOOD GRAINS	0.51	2.19	1.28	0.23	3.48	2.54

13.6 FACTORS INFLUENCING PRODUCTIVITY

The gains in foodgrains output in the post-green revolution period have come essentially from the improved utilization of the available infrastructure and from the resulting increase in yield per hectare. Already, during the early post-green revolution period, the increase in yield accounted for as much as 62 per cent of the foodgrains output and 58 per cent of the total agricultural output. The contribution of yield growth rate to output growth rate in the late green revolution period for foodgrain was to the tune of 96 per cent and 13 per cent of the total agricultural output. It only means that growth of foodgrains output in particular and total agricultural output in general is predominantly dependent on increasing yields rather than area. This underscores the growing importance of yield increasing technology. Clearly, current inputs like fertilizer and irrigation have become more important as a source of growth in the recent period. Although the spread of fertilizer to the new areas where the existing level of application is relatively low would have contributed to the rise in productivity per unit of fertilizer. There may well be considerable scope for further improvement in the productivity as well as for ensuring more equitable distribution of benefits. Clearly Current inputs like fertilizers have emerged as an increasingly

important source of growth. The encouraging performance of agricultural output as well as agricultural productivity can be attributed to the spread of new technology to the crops and regions lagging behind earlier.

The use of HYVs of crops has been extended under well-controlled irrigated conditions. Assured water supply is a pre-requisite for intensive agriculture based on HYVs of seeds and high levels of fertilisation. Around 64 per cent of the gross cropped area still depend on rainfall, which is concentrated in the few months of year.

The area under HYVs of foodgrains has risen from 2 million hectares in 1966-67 to 65 million hectares by 1990-91 and 75 million hectares by 1995-96. About 92 per cent of the area under wheat and 77 per cent of area under rice is covered by the high yielding varieties. The consumption of fertilizers has also recorded substantial increases with increase in the area under HYV's because large quantities of fertilizers are required for realizing the high yield potential of HYV's. The consumption of fertilizers, which have risen from negligible of 0.07 million tonnes in 1950-51 to 2.2 million tonnes in 1970-71 reached a level of 13.6 million tonnes in 1994-95. That is in per hectare terms it has risen from a negligible level in 1950-51 to 13.13 kgs. in 1970-71 and 75.68 kgs. in 1994-95.

The gross cropped area irrigated in the country was only 22.56 million hectares accounting for only 17 per cent of the total gross cropped area of the country. Due to consistent efforts of the state coupled with huge investments in major and minor irrigation works increased to 66.14 million hectares in the year 1992-93 accounting for 2.2 per cent of the total gross cropped area of the country. That is to say in around four decades the addition to gross irrigated area was only 5 per cent points. Even this small addition to irrigation had resulted in the expansion of gross cropped area by increasing intensity of cropping on the one hand and expansion of agricultural output on the other.

Check Your Progress 2

- 1) Describe the situation of agriculture at the time of independence in 50 words.

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- 2) Write in 50 words the comparison of pre-green revolution and post-green revolution period.

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- 3) What factors were responsible for growth of yield of crops?

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- 4) State whether the following statement are true or false.
- 1) British policy was conducive towards food grain production. ()
 - 2) Foodgrains growth rate were higher than the non-food grains in the colonial period. ()
 - 3) In the post-independence period growth of food grains was higher than the non-food grains. ()
 - 4) Food grains growth in the green revolution period was mainly due to the area expansion. ()
 - 5) In the part of the green revolution period agriculture growth was mainly because of growth in yield levels. ()

13.7 LET US SUM UP

Agriculture plays an important role in the development of an economy. It makes four types of contributions to the national economic growth. Firstly it makes product contribution' by supplying food and raw material to the non-agricultural sector. Secondly it makes market contribution by creating demand for the domestic industry and thirdly it contributes capital and surplus labour to the non-agricultural sector and finally agriculture can also make foreign exchange contribution. Agriculture is an important and biggest sector of the Indian economy, which has contributed significantly towards the national income. It continues to be the major source of employment for the majority of the population and has successfully provided food and raw material to the industrial sector. Thus it has influenced the overall growth of the Indian economy positively. It continues to be major source of earning foreign exchange. Besides its growth has helped in saving the costly foreign exchange.

On the eve of independence, the agricultural sector was described to be stagnant with deficient infrastructure and outmoded technology coupled with exploitative institutions. The comparison of pre and post independence period brings out that the growth of agricultural output has been almost negligible with stagnant yield levels. Non-foodgrains have grown at a comparatively higher rate of growth because of the policies pursued by the British. However the post independence period have shown an impressive growth of agricultural output with major contribution by the yield growth rate. Food grains have grown at a higher growth rate than the population thus increasing the per capita availability of foodgrains in the post independence period. The major growth of foodgrains is due to the adoption of new technology and use of improved inputs like irrigation and fertilizers.

13.8 KEY WORDS

Colonial Agriculture: Agriculture during the period of British rule. In this period, agriculture was characterised as stagnant using primitive technology with exploitative institutions.

Green Revolution: The culmination of new strategy in agriculture came about in the mid-sixties when the high yielding varieties (HYV) brought increase in productivity in agriculture. A major feature of the HYV technology was its packet approach i.e. HYVs, fertilisers, pesticides, controlled water supply, mechanical equipment and provision of non-farm services.

New Strategy in Agriculture: Same as technological change in agriculture which came about in the mid sixties.

Technological Change: Also known as green revolution of bio-chemical technology in agriculture. This change brought yield rates towards the increasing the production of agricultural output.

13.9 SOME USEFUL BOOKS

- Bhatia, B.M. (1988): *Indian Agriculture : A Policy Perspective*.
- Brahmananda, P.K. & V.R. Panchmukhi (ed) (1986): *The Development Process of the Indian Economy*.
- Dantwala, M.L. and others (ed) (1986): *Indian Agricultural Development since Independence*. The Indian Society of Agricultural Economics, Bombay.
- Dhingra, I.C. (2001): *The Indian Economy-Environment and Policy*, Sultan Chand & Sons, New Delhi.
- Government of India (1976) : *National Commission on Agriculture*, Ministry of Agriculture and Irrigation, Report, Part I- Review and Press.
- Government of India (1976): *National Commission on Agriculture*, Ministry of Agriculture and Irrigation, Report, Part-II, Policy and Strategy.
- Sharma, R.K. (1992): *Technical Change, Income Distribution and Rural Poverty: A Case Study of Haryana*.

13.10 ANSWERS/HINTS TO CHECK YOUR PROGRESS EXERCISES

- 1) Agriculture makes contribution to (a) Product contribution, which leads to expansion of non-agricultural sector by supplying food requirements. (b) Contributes raw materials used in manufacturing products such as textiles and sugar (c) Market Contribution by creating demand for the product of domestic industry (d) Factor contribution by supplying capital for investments in the non-agricultural sector. (e) Foreign exchange contribution through export earnings.
- 2) Agriculture provides food, raw materials, employments capital required for its own development and also for broader economic developments, earned valuable foreign exchange.
- 3) (1) decreased (2) higher (3) slow (4) declined (5) decreased

Check Your Progress 2

- 1) See Section 12.4 and attempt your answer.
- 2) See Section 12.5 for your answer.
- 3) See Section 12.6 for your answer.
- 4) a) false b) false c) false d) false e) true

UNIT 14 INSTITUTIONAL AND TECHNOLOGICAL FACTORS

Structure

- 14.0 Objectives
- 14.1 Introduction
- 14.2 Pre-Land Reform Agrarian Scenario
- 14.3 Post Independence Agrarian Reforms, Legislation and Implementation
 - 14.3.1 Abolition of Intermediaries
 - 14.3.2 Tenancy Reforms
 - 14.3.3 Ceiling Legislation
 - 14.3.4 Implementation
- 14.4 Role of Technological factors in Agricultural Growth
 - 14.4.1 High Yielding Varieties of Seeds
 - 14.4.2 Irrigation and Water
 - 14.4.3 Fertilizers
 - 14.4.4 Mechanisation
- 14.5 Let Us Sum Up
- 14.6 Key Words
- 14.7 Some Useful Books
- 14.8 Answers/Hints Check Your Progress Exercises

14.0 OBJECTIVES

This unit introduces you to the agrarian structure on the eve of independence. It critically evaluates the various land reform measures implemented in India after independence. The role the technical factors have played in the growth of agricultural development. After going through this unit you would be able to :

- identify the reasons for initiating land reforms;
- discuss the reasons for success and failure of the various land reforms; and
- describe the role various technological factors can play towards agricultural growth.

14.1 INTRODUCTION

Although increased investments and enlarged markets are basic requirements for agricultural development, it also involves complex processes and procedures of institutional change, redistribution of economic and political power and concerted deliberate public policy efforts for redistributing the gains of economic growth. Land reforms in narrow sense refer to measures to redistribute land in favour of peasants and small farmers. Land reform is obviously not a modern phenomenon. In its traditional sense, it has taken place over the years primarily in response to demand for greater equality or social justice.

14.2 PRE-LAND REFORM AGRARIAN SCENARIO

The pre-independence or precisely pre-land reform Indian agriculture was dominated by a large class of poor peasants and landless labourers, the two groups together formed the majority within the agricultural sector. Substantial area was owned by a small percentage of rich peasants and landlord-cum-money lenders. The modes of production were primitive and intensity of land use was less than that on the small farms. Nearly a fifth of the area was under tenants and more than a third of this being

under shared tenancy, and most of it being under informal arrangements. It was obvious that the structure was inequitable. It lacked also the potential for growth. The poor peasants and landless labour was a deficit section in all respects. Rental incomes and consumption loans to impoverished peasants were more rewarding for the landlord than cultivation. Both equity and growth demanded changes in agrarian structure.

14.3 POST INDEPENDENTS AGRARIAN REFORMS, LEGISLATION AND IMPLEMENTATION

Therefore immediately after attaining independence, the first task to be initiated was agrarian reforms to accomplish the desired objectives. The term agrarian reforms in the present context would be interpreted to mean the reforms relating to the abolition of intermediaries, re-distribution of land through imposition of land ceiling, security of tenure and consolidation of holdings. There are no dearth of documents prepared in the process of agrarian reforms by various committees panels and commissions beginning with the congress Agrarian Reforms Committee showing concerns about the situation and providing radical solutions. Nevertheless these documents were the outcome of the good intentions. There seems to be big gap between intentions and practices. So various legislative laws enacted and implemented to give practical shape to the diverse aspects of agrarian reforms policy.

In short rural India was characterised by feudal and semi-feudal agrarian relations. The peasantry was exploited in terms of rack renting, in security of tenure, forced labour, usually and so on. This resulted in the impoverishment of the peasantry on the one hand and the stagnation of agricultural production on the other. This called for an immediate restructuring of the agrarian relations in order to emancipate the peasantry from the semi-feudal production relations and foster the agricultural growth.

14.3.1 Abolition of Intermediaries

Since Land reforms change the base of economic and political power the policy content and implementation cannot but be influenced by the class alignments in the power structure. The earliest of the programmes of land reforms to be implemented with some success in India was the abolition of intermediaries. Abolition of intermediaries was initiated soon after independence. The anti nationalist character of the intermediaries, the prolonged struggle of the peasantry against zamindars as a part of nationalist struggle, the alienation of zamindars for political power in rural areas, the character of reform under which the interests of the upper class in the rural areas were little affected - all these contributed to the success of these reforms. As a result of this measure, by the middle of fifties the state assumed direct responsibility for revenue administration in the whole of the country. It meant better records of land ownership and the basis for transferability of land for mortgage or sale was placed on a much firmer footing as in the Rayatwari areas. There was also a better basis for administration of agricultural development.

These measures were criticized on two major grounds. Firstly, the high rates of compensation was wasted in luxurious consumption or spent on buying urban property and only a very small percentage of it was invested to step up agricultural production. Secondly, the exclusion of sir, Khudkasht and Khas lands from the purview of the Acts as personal property of the intermediaries under self-cultivation constituted a damaging loophole in the law and was utilised with deadly effect by the intermediaries. These loopholes helped to keep alive the social and economic base of feudal vested interests in the country and denied the benefits to the tenants. On the contrary the bigger landowners carved out their own sir and Khudkasht lands, and resorted to large-scale eviction of tenants and sharecroppers. The mass evictions exercised adverse

effect materially and morally on village life and foiled largely the new hopes and aspirations generated among the rural poor by land reform.

In fact abolition of intermediaries left inequalities of land ownership and the position of the sharecroppers and labourers unchanged though it helped to confer permanent, heritable and transferable rights on occupants. However the abolition of statutory landlordism covering a variety of intermediary tenures has now more or less been accomplished bringing nearly 20 million cultivators into direct contact with the state. Yet by skimming off the top layer of great absentee landlords it brought about spectacular improvement in the pre-reform situation.

14.3.2 Tenancy Reform

The specific features of tenancy legislation arise from the basic framework of land reforms policy, which favoured neither the wholesale expropriation of landlordism nor the wholesale expropriation of tenant cultivators. The middle course was adopted. During the first phase of the then existing tenancy laws were carried out, along with legislation for abolition of intermediaries, extending the scope of protection to the tenants of ex-intermediaries particularly in areas of statutory landlordism. The provision of larger measure of protection to tenants, however, set into motion a contradictory social process, namely that of mass eviction of tenants and sharecroppers. So powerful was the eviction drive, the old tenancy arrangements broke down and it took years for new arrangements to take shape.

Most of the States, however, tried to enact or amend tenancy laws in the subsequent years and tried to plug certain glaring loopholes in the existing enactments to enlarge the area of protection to the tenants. The major aspects incorporated in tenancy legislation in different states during the last two and a half decades can be identified as (i) security of tenure; (ii) termination of tenancy; (iii) resumption for personal cultivation; (iv) surrenders; and (v) regulation of rent. Tenancy reforms in different States exhibited considerable variations though maintaining a broad similarity of pattern.

While considerable progress has been made in the field of tenancy reform many deficiencies still persist in the laws. The definition of the term 'tenant' generally excludes the sharecroppers who form the great bulk of the tenant cultivators. Exclusion of sharecroppers from the scope of protection deprives the real tillers of the soil of the protection and rights provided for the tenants.

Ejection of tenants from their holdings is still permissible on flimsy grounds like non-payment of rent, failure of payment within a given period, failure to deliver share of the produce within specified time, to execute agreement to cultivate land properly etc. Total eviction from land is one of the besetting evils of the existing reforms.

Voluntary surrenders, as provided in the laws, are hardly ever voluntary, and have become the biggest instrument in depriving the tenants of their due protection. In fact the Fourth Plan suggestion that the landowners should not be allowed to regain possession of the surrendered land has not been acted upon by most of the States.

The right of resumption was sought to be justified as it would help to convert non-working rent-receiving landowners into owner cultivators who could step up agricultural production, the accent being on 'personal cultivation'. The term 'personal cultivation' has been so defined as to cover cultivation through hired labourers paid in cash or kind. Even personal by the landowner or his family is not an essential requisite of personal cultivation. With such a definition, the right of resumption has become an instrument in the hands of the unscrupulous landowners for land grabbing,

more so when the factor of personal labour does not find any place in the definition. This provision resulted in concealed tenancies which the actual tenant is characterised as a farm servant or an 'agricultural partner'.

The major drawback of tenancy reforms has been not to be able to regulate rents as recommended in the Plans. Fair rents have not been defined uniformly in the State laws. Besides, it is extremely difficult to implement the provisions of fair rents in the case of sharecroppers and tenants who are not enjoying any security of tenure.

One of the principal aims of tenancy reforms was to convert tenants into owners of land they cultivated. This object of conferring occupancy rights on as large a body of tenants as possible did not materialise because of high rates of compensation to be paid by the tenants. Besides, the purchase of ownership was made optional in certain states.

The provision of acquiring occupancy right by tenants on producing proof of continuous possession for twelve consecutive years totally negates the spirit of the principle of 'land to the tiller; because under the peculiar character of landlord-tenant nexus in India, it is virtually impossible for an ordinary tenant to prove it. It should have been provided that once a tenant puts forward his claim to occupancy right or any right under the tenancy law, the burden of proof to the contrary should be on the landlord in order to protect the mass of tenants.

14.3.3 Ceiling Legislation

In the pre-independence era, the principal of limiting private landholding was advanced by the All India Kisan Sabha. The existing landholders, both in Zamindari and Rayatwari area, shall be allowed to possess land for self cultivation only upto the maximum limit of 25 acres per land holder.' The problem of imposition of a ceiling on landholdings was also treated in the programme documents of the Indian National Congress. Nevertheless the question of a ceiling on landholdings gave rise to for greater disagreement in the ruling circles, firstly, because a ceiling directly affected the entire landlord class and not only the zamindars; secondly this measure applied not only to feudal and semi-feudal landed properties, but to big landholders in general and thirdly, with considerable concentration of lands in the hands of upper stratum of the peasantry, there was genuine fear among the latter that their interests, too, might be affected. The basic aims to be attained by fixing a ceiling on land holdings were (i) to meet the widespread desire of the tillers to possess land, (ii) reducing glaring inequalities in ownership and use of land; (iii) reducing inequalities in agricultural incomes; and (iv) enlarging the sphere of self-employment. However the third five-year plan document distinctly declared that one of the principal aims of the agrarian policy, and particularly of the imposition of a ceiling on land holdings, is to eliminate all elements of exploitation and social injustice within agrarian system. Nevertheless the declared policy of the government on the ceiling does not give a clear picture of the future of the landlord class.

The imposition of ceiling on agricultural holdings is pre-eminently a redistribute measure. The almost compelling case of land ceiling arises from the absolute and permanent shortage of land in relation to the population dependent on it, the limited prospect of transfer of population to non-agriculture and the need to step up production along with increase in employment. But this necessity was not effectively transformed into spearheaded action. Thus, for nearly fifty years after attainment of freedom, ceiling on big holdings remained a nebulous item in the scheme of agrarian reforms. It remained a vague politico-economic concept lurking in the background. It was justified on consideration of social justice but not on grounds of increasing production and developing agriculture.

Ceiling laws were enacted and enforced in two distinct phases, the earlier phase covering the period upto 1972, and the later from 1972 after the adoption of 'National guidelines'. As ceiling legislation is a State subject; each State enacted its own ceiling law, which obviously gave room for variations. There were two units of application, namely, the individual landholder and the family. Again, the definition of the term 'family' as also the classes of land, which were exempted from the operation of ceiling laws, also varied widely in the States. These legislative measures were also full of loopholes and the big landowners took full advantage of them to circumvent the laws. They resorted to partition of their holdings and fictitiously transferred them to other individuals through what is called 'beamy' transfers on a very large scale in anticipation of ceiling laws with the result that very little surplus land became available for redistribution. Besides, implementation was extremely unsatisfactory. The absence of any penal measure to restrict or control such breaches of law accelerated such evasion.

The major loopholes that existed in the ceiling laws were the high ceiling limits, scope for manipulations and clandestine transfers and exemption of various types of land from the ceiling laws were more serious. These loopholes provided an object lesson for today. It is now generally recognised that if redistribution of land was the main objective of the ceiling laws, this was not realized at all. The ineffectiveness of the ceiling laws of the earlier phase, the exigencies of agricultural production, agrarian unrest in the country, all these factors called for immediate review. The National Guidelines formulated on basis of this review provided the basis of ceiling legislation in the post 1972 phase.

The ceiling legislation in the post 1972 phase has been improved, rationalised and put on a more or less uniform basis throughout the country. This represents a national consensus on the question. The ceiling limits have been appreciably reduced, the long list of the exempted categories of land has been considerably cut and measures to control clandestine transfers have been provided for. There, however, still remain some variations in the amending legislation from State to State relating to the level of ceiling on lands with assured irrigation, outer limits of ceiling, rates of compensation and the date of retrospective effect. The main problem now is that of effective implementation of the amending legislation.

14.3.4 Implementation

The agrarian reforms not only failed to solve the land question through abolition of land lordism and redistribution of the land to the tillers of the soil; they did not even completely eliminate the semi-feudal exploitation of the peasantry. According to the 8th round of NSS, in 1953-54, 20.34 per cent of the cultivated land was held under leases. It also showed that the principal lessors were big landholders while for India as a whole only 12.03 per cent of total rural households owning land leased it out. It was found that households owning above 50 acres of land were leasing 36.26 per cent of the area and those owning 30-50 acres of land leasing out 28.07 per cent. These households together constitute 3.31 per cent of rural households leasing out land, accounted for 40.15 per cent of the leased out area. This was the position after the occupancy tenants in the zamindari area were declared owners.

The ruling circles depended primarily on legislation as the instrument of agrarian reforms to the serious neglect of implementation. They believed that once legislation has been enacted the required socio-economic results would follow automatically. In fact, implementation lag in the field of land reforms is still colossal and has been almost chronic.

The lack of political will has been a key factor behind ineffective implementation. The enforcement of land reforms has been treated as the sole responsibility of certain

administrative agencies without a time-bound programme and without any obligation on their part to associate the peasants with the process of implementation. Implementation is in a large measure a function of the degree of consciousness and organisation of the potential beneficiaries. The absence of links between the State and the potential beneficiaries through local popular organs has perpetuated the drift in the process of land reforms. The up-to-date records of rights, so crucial for effective implementation, were also wanting. Besides, the influential landowners made use of the existing laws and certain implementation procedures to get the land reform measures invalidated or stalled through judicial pronouncements and decrees. So, with all the moderate stance of land reform legislation in India, the performance, by and large, has been disappointing. Since land reforms involve certain basic structural changes in rural society affecting property rights in land, the officials cannot on their own function as a change agency in this field. In fact, the official machinery has not been conditioned to act as such, and without a powerful will of the State, explicitly defined and forcefully asserted from above, land reform programmes in the hands of officials alone would continue to fail. In this situation participation of the potential beneficiaries in the practical process of implementation assumes even greater significance.

Check Your Progress 1

1) Describe the Agrarian Scenario in the pre-land reform period.

.....

2) Explain what you understand by Agrarian reforms.

.....

3) Explain the reasons behind 'Abolition of Intermediaries' having some success among various land reform measures.

.....

4) Mark "T" for True and "F" for False.

- i) Land reforms broadly refer to measures to redistribute land in favour of peasants. ()
- ii) Self-cultivation constituted a damaging loophole in the law and was used by the intermediaries for denying the benefits to the tenants. ()
- iii) Tenancy laws were broadly used for mass eviction of the tenants. ()
- iv) The definition of the term 'tenant' included the sharecroppers. ()
- v) The imposition of ceiling on agricultural holdings was primarily a re-distributive measure. ()

14.4 ROLE OF TECHNOLOGICAL FACTORS IN AGRICULTURAL GROWTH

The food situation in India on the eve of the introduction of new high yielding varieties was alarming. Poverty, malnutrition and starvation were quite widespread. Unemployment has increased out of proportion because of stagnation in the industrial sector. There was serious risk of breaking down of the socio-political order if the situation did not improve. The food imports were continuously rising. The possibility of importing further were declining due to the uncertainty in world supply of foodgrains in the face of increasing demand from the food deficit regions of the world. Moreover, food prices in the world market were high and increasing, where as the economies capacity to import was limited. The possibility of increasing production by bringing more land under cultivation through land reclamation measures and cultivation of cultivable wasteland was not much. For the future, an overwhelming part of the increased production had to come by way of increased land productivity. Therefore in 1965 a 'new strategy' for agriculture for the fourth plan was outlined with the following objectives:

- i) to apply scientific techniques and knowledge of agriculture production at all stages, particularly in the fields;
- ii) to select a few areas with assessed rainfall and irrigation for concentrated application of a package of inputs based on improved varieties of seed responsive to heavy doses of fertilizers and on other modern inputs.
- iii) to achieve higher production of subsidiary foods both through intensive production programmes and overall development.

The above strategy was independent of the new HYV of seeds and would have been put in operation even if the former were not available.

14.4.1 High Yielding Varieties (HYV) of Seeds

However it was a sheer coincidence that, by this time, after years of international research and experimentation, the new high yielding short duration, short stem, fertilizer responsive varieties of seeds (HYV's) of wheat and rice became available for commercial cultivation in India. With this agricultural development strategy went under a dramatic change. The change was from traditional to modern agriculture based on the use of non-farm purchased inputs like fertilizers, pesticides, electric and diesel pumpsets, tractors and later on harvester combines. The adoption of the HYV technology yielded such spectacular results that it was termed as 'Green revolution'. It led to significant increases in the production of foodgrains in the five years (1967-68 to 1971-72) to average of 100 million tonnes compared to the average of 83 million tonnes of the pre-green revolution period of five years (i.e.1960-61 to 1964-65). In spite of the fact that it was limited to some cereal crops only and that too in the regions with good irrigation potential. As such its success depended on the availability of assured irrigation use of fertilizers and the HYV seeds.

Progress of HYV is indicated in the table 1. The area under High yielding varieties of paddy, wheat, maize, jawar and bazra increased from 0.88, 0.54, 0.21, 0.19 and 0.06 million hectares in 1966-67 to 28.71, 22.12, 3.02, 6.76 and 5.20 million hectares respectively by 1993-94. The total area under HYV crops increased from 1.88 million hectares to 66.99 million hectare over the same period. In 1966-67 it constituted only 2.5 per cent, 4.2 per cent, 4.1 per cent, 1.05 per cent and 0.5 per cent to the total area under the respective crops. However in 1993-94 share of HYV area to total area under these respective crops is 67.5 per cent, 88 per cent, 50 per cent, 53.2 per cent

and 54.5 per cent. However total HYV area as a proportion of total foodgrains area has increased from 1.63 per cent in 1966-67 to 54.3 per cent in the year 1993-94.

Table 1: Area under HYVs and Progress in Use of Agricultural Inputs

Area under HYV	1960-61	1970-71 (in unit million Hact.)	1980-81	1990-91	1994-95
Paddy	0.89@	5.59	18.23	27.39	31.02
Wheat	0.54@	6.48	16.10	20.97	23.25
Jowar	0.16@	0.80	3.50	7.06	7.08
Bajra	0.06@	2.05	3.64	5.70	5.39
Maize	0.21@	0.46	1.60	2.61	3.38
Total:	1.89@	15.38	43.08	64.98	71.27
Consumption of Chemical- Fertilizers: (in Lakh Tonnes)					
Total (N+P+K)	2.92	21.77	55.16	125.46	185.64
Per Hact (Kg.)	1.90	18.18	31.83	67.49	75.68

@ relates to 1966-67.

Source: Agricultural Statistics at a Glance DE&S, Ministry of Agriculture, Govt. of India, 1996.

Impressive success of this programme has resulted in phenomenal increases in the production of these cereals as well as total foodgrains during this period. Productivity of rice increased from mere 863 kgs per hectare in 1966-67 to 1888 in 1993-94 i.e. more than doubled, wheat productivity from mere 887 kgs per hectare to 2380 kgs per hectare i.e., by around 2.7 times in the same period. However the overall production of rice and wheat has risen much faster by 2.6 and 5.3 times respectively during this period because increases in area under these crops due to relatively higher yield rates. The remaining crops like maize, jawar and bajra did not show much improvement. That is to say the success story of HYV programme is limited to the major two foodgrain crops i.e. rice and wheat. Besides this it was also localized to the few states of the Indian Union and it was equally true about wheat rather than rice. It was a spectacular success in case of wheat in Punjab, Haryana and UP to be precise western U.P. where water was available in plenty. To an extent incentive price support policy of the government also played a crucial role in the increased use of new seeds.

In fact the increase in wheat output has become an important stabilizing factor in foodgrains production in the country of late wheat cultivation is spreading in the non-traditional areas such as West Bengal, Maharashtra, Assam, eastern Bihar and Orissa. In case of cultivation of HYVs of paddy there is a visible significant progress made although the pace of development is not as fast as in the case of wheat. This is due to the fact that the bulk of the crop is grown in the Kharif season, which suffers from the vagaries of the monsoon, characterised by drought or floods, and its vulnerability to attack by pests and diseases is very high. However in the rabi season (or winter) when rainfall is low and water management is easier the HYVs of paddy have shown much better results. As a result of the introduction of HYVs, paddy production has increased at a faster rate in the non-traditional rice growing states like the Punjab, Haryana and Western Uttar Pradesh, which are therefore contributing a significant

proportion of the total procurement for the central pool because of limited local consumption.

14.4.2 Irrigation and Water

Water is a crucial input for plant growth. Annual precipitation is a major source of water in India. Average annual rainfall is about 1200 mm but it is seasonal and highly uneven in its geographical distribution over the country. In some areas of the country e.g. West Rajasthan, the annual rainfall is less than 200 mm; in others e.g. Southwest India and parts of Assam it is as high as 4000 mm. Nearly 75 per cent of the rainfall in many regions of India is contributed by the Southwest monsoon and it is therefore confined to four months of the rainy season i.e. from June to September. Very few regions in India receive rainfall during the winter and summer season. As much as 34 per cent of the net sown area lies in low rainfall regions i.e. with annual precipitation of less than 750 mm. Another 36 per cent of the area receives 750 mm to 1150 mm. Only the remaining 30 per cent of the net sown area enjoy benefit of more than 1150 mm i.e. high rainfall. Besides, prolonged dry spells during the rainy season and/or late commencement or early withdrawal of monsoon further aggravates the uncertainty of crop prospects. In view of such uncertainties in rainfall irrigation is a critical requirement not only in low and medium rainfall regions but is necessary in even high rainfall regions as a supplementary source of water in the Kharif season.

The importance of irrigation to India's agriculture cannot be over stated. Apart from its vital importance for healthy crop growth, irrigation has attained crucial significance in view of the country's expanding needs of food production. The availability of water all the year round through irrigation networks facilitates double cropping as well as reduces the impact of vagaries of nature. Given the limited opportunities for bringing the additional acreage under cultivation in future, irrigation is capable of playing a useful 'land augmenting' role in India. In other words increase in agricultural production in general and foodgrains production in particular for the growing population would have to come largely through higher intensity of cropping and increased productivity per unit of land.

Most of the successful 'green revolution' areas of India and elsewhere in south Asia were known for their developed canal irrigation systems during the pre-HYV period. Irrigation is a pre-condition for the successful introduction of the new varieties even in areas known for heavy rainfall, such as the rice producing deltas of south India. the dwarf-sized new varieties can not be cultivated in flooded low lying areas which have traditionally been planted with taller varieties adapted to growing with water in the fields. Although attempts are presently being made to breed high yielding varieties, which can cope with deep-water conditions.

According to the Irrigation Commission, 1972, net area irrigated went up from 17.1 Mha (Million hectares) during the quinquennium ending 1934-35 to 19.4 Million hectares during the quinquennium ending 1949-50 i.e. by 18.5 per cent. Area irrigated from government canals went up during the same period by 28.0 per cent compared to wells, which increased by only 10.4 per cent.

With the advent of planning greater emphasis was placed on increasing area under irrigation to enhance the foodgrains as well as agricultural output. By 1990-91 net irrigated area moved up to 47.78 Million hectares as compared to 20.85 Million hectares in 1950-51 and 26.34 Million hectares in 1965-66 i.e. before the advent of the green revolution (table 2). That is it has grown at a faster rate of 2.41 per cent per annum in the post-green revolution period as compared to 1.57 per cent in the

pre-green revolution period. Even the growth rate of gross irrigated area in the post-green revolution period is higher than the pre-green revolution period. It only shows that the available irrigation facilities are being more intensively used in the post green revolution period. Alternatively one finds that the net irrigated area as a proportion of net sown area and gross irrigated area as a proportion of gross cropped area increased from 17.56 and 17.11 per cent to 19.34 per cent and 19.90 per cent respectively during the period 1950-51 to 1965-66 i.e. pre-green revolution period. This is also reflected in the increase in the cropping intensity, which have increased from 111.1 in 1950-51 to 129.9 in 1990-91 (table 2). In the initial stages increase in net irrigated area were brought about mainly through canals and wells. According to table 3, the percentage area irrigated by these two sources of irrigation in 1950-51 was 68.5 per cent, which increased 71.1 per cent by 1960-61. However after the mid sixties a much faster growth was registered by tube well irrigation, which is assured irrigation a prerequisite for the successful adoption of HYV technology. By 1990-91 the proportion of net irrigated area to net sown area increased to 33.59 per cent and that of gross irrigated area to gross cropped area to 33.60 per cent. Over and above the quality of irrigation has improved that is it has become more assured as compared to pre-green resolution period.

Table 2 : Selected Categories of Land use Classification

Year	NSA	NIA	PSAI	GSA	GIA	PGAI	CI
1950-51	118.75	20.85	17.56	181.89	22.56	17.11	111.1
1955-56	129.16	22.76	17.62	147.31	25.64	17.41	114.1
1960-61	183.20	24.66	18.51	152.77	27.98	18.32	114.7
1965-66	186.20	26.34	19.34	155.28	30.90	19.90	114.0
1970-71	140.27	31.10	22.17	165.79	38.19	23.04	118.2
1975-76	141.65	34.59	24.42	171.29	43.36	25.31	120.9
1980-81	140.00	38.72	27.66	172.63	49.78	28.84	129.9
1985-86	140.90	41.86	29.71	178.46	54.28	30.42	126.7
1990-91	143.00	47.78	33.41	185.74	62.47	33.60	180.7
1994-95	142.82	53.00	37.11	188.15	70.64	37.54	181.7

NSA : Net Sown Area, NIA : Net Irrigated Area, PSAI: Percentage of Net Sown Area Irrigated

GSA : Gross Sown Area, GIA : Gross Irrigated Area, PGAI : Percentage of Gross Area Irrigated

CI : Cropping Intensity

* Source : Indian Agriculture in Brief.

Table 3 : Area Irrigated by Sources

(Area in thousand hectares)

Sources	Year				
	1950-51	1960-61	1970-71	1980-81	1990-91
Canals	8,295 (39.8)	10,370 (42.1)	12,838 (41.3)	15,292 (39.5)	16,900 (35.7)
Tanks	3,618 (17.3)	4,561 (18.5)	4,112 (18.2)	3,182 (8.2)	3,245 (6.2)
Tubewells	(a)	185 (0.6)	4,461 (14.3)	9,531 (24.6)	14,211 (29.9)
Other wells	5,978 (28.7)	7,155 (29.0)	7,426 (23.9)	8,164 (21.1)	9,999 (21.1)
Other Sources	2,967 (14.2)	2,440 (9.8)	2,266 (7.3)	2,551 (6.6)	3,079 (6.5)
Total	20,853	24,661	31,103	38,720	47,434
Net Irrigated Area	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)

(figures in the brackets are percentages)

a) included under "other wells" as separate figures were not collected during this year.

Source: Indian Agriculture in Brief 25th ed., Ministry of Agriculture, Government of India.

14.4.3 Fertilizers

Rapid population increases coupled with increasing demand for land for non-agricultural purposes has led to increasing pressure on land. Therefore the major emphasis has to be on raising the yield per acre of cropped land and on increasing cropping intensity of land used for cultivation. The net sown area is inelastic and has not increased much since 1970-71 to 1992-93. It was 140.27 million hectares in 1970-71 and increased to only 142.51 million hectares by 1992-93 i.e. has grown at paltry rate of 0.07 per cent per annum. It has already been pointed out that the new varieties are responsive to fertilizer intake. Therefore with increasing dosages of fertilizer, the output from traditional varieties grows only to a limited extent, whereas the new varieties show increasing yields up to a very high level of fertilizer input. The adequacy of the fertilizer supply, is for this reason, considered by many as a major pre-condition for the success of the technology associated with the new varieties.

Traditionally the level of consumption of fertilizer in India has been very low at less than a kg per hectare. However it increased to 1.90 kgs per hectare of cropped area in 1960-61 to increase to 9.40 kg per hectare at the time of introduction of HYVs in India. It rose to around 31.83 kgs per hectare of cropped area and touched a all time high figure of around 66.5 kgs per hectare in the year 1992-93 (table 1). In comparison other Asian countries like DPR Korea and Japan per hectare application of fertilizers is as high as 399.7 kg and 345.3 kgs respectively. Total consumption rapidly increased with the introduction of HYV's. The domestic production of nitrogenous fertilizer increased from 98 thousand tonnes in 1960-61 to 10438 thousand tonnes in 1994-95,

but for a large part of the consumption the Indian farmers are still heavily dependent on imports. Fertilizer imports have increased over the years and they are at a level of 2.965 million tonnes i.e. around 22 per cent of the total consumption.

The phenomenal increase in production and productivity in agriculture since the mid sixties have been achieved through exploitation of the potential of HYVs with the help of increased use of fertilizers. Fertilizers along with better seeds and irrigation hold the key to the expected achievements. Thus although the importance of increase in the use of fertilizers was known from the beginning of the planning, the major break through in the consumption of fertilizers came with the introduction of new farm technology, which underlined the need for increased availability and use of non-conventional scientific inputs.

The annual growth rate in the use of fertilizers since 1968-69 is presented on the accompanying table. The annual rate of growth in the first four years from 1968-69 to 1971-72 was in the range 18 to 18 per cent. The pace of growth slowed down considerably during the period 1972-74 culminating in 1974-75. That was the period of energy crisis; the availability of fertilizers in the world market had shrunk; the prices had skyrocketed; ocean freight costs had galloped and profitability of fertilizer use had reached a low point. The steep rise in the price of chemical fertilizers had a dampening effect on the use of fertilizers. In northern India where selling fertilizers was never a problem, sales met with resistance from the peasants. The situation changed due to corrective action taken by the government, and supported by the industry and facilitated by the distinct improvement in the world situation.

Massive increase in fertilizer consumption would require a matching effort to strengthen the production and marketing infrastructure so as to make the right type of fertilizer available to the farmer at right place, at the right time and at the right price. It would also need a matching effort in providing strong extension support and making available other inputs such as irrigation water, credit and quality seeds to the farmers.

14.4.4 Mechanisation

Mechanisation is induced by the secular tendency for the biological sources of energy to become costlier as compared to mechanical sources. This is due in part to the labour saving bias of the technological change as well as increasing ease with which capital can be substituted for labour in agriculture. Further with the rise in incomes of farmers, the desire to reduce the drudgery of manual work asserts itself. Farm Mechanisation can give the farmers greater leisure apart from making work more agreeable. It may even raise the participation rate among those who could afford to abstain from the drudgery of manual work. Further, as Hanumantha Rao has argued labour in the sense of effective energy or efficiency units cannot be abundant when food is in short supply and the cost of labour can rise despite the growth of population. Besides these economic compulsions, the presence of mechanical sources of energy particularly tractors adds to the prestige (status) of farmers.

Many agricultural economists would dispute the inclusion of an indivisible factor of production like a tractor as a component of the new technology alongside divisible inputs like new seeds, fertilizer, pesticides and irrigation. Their opposition follows from their narrow definition of the new technology as scale-neutral, which can be introduced by both the large and smallholdings alike, whereas the inclusion of tractors is likely to give it the appearance of being biased towards the large farmers. However in most of the cases where the new technology has been successful, it is difficult to

assess its impact independent of the influence of tractorisation. The general experience is that the areas which were having a high degree of agricultural mechanisation in the past, such as Punjab, Haryana or west Godavary in A.P. were among the first to respond favourably to the new high yielding varieties of seeds.

Many factors have contributed to the growth of tractor use in the country with the introduction of the new varieties. On the supply side, the HYV seeds have been launched with an accompanying generous credit policy , which has made the purchase of agricultural machinery easier. However, easy financing cannot by itself explain the shift to tractor ownership, since according to available estimates, until 1970 only 10 per cent of the tractors were purchased with the institutional loans. Most of the money for their purchase came from private sources, part of it from the increased profits accruing to the large farmers from the cultivation of new varieties. Another important factor was the governments decision of liberalizing import of tractors and to encourage their domestic production. The number of tractors in the country grew in the first twenty years after the Green Revolution from 54 thousand in 1966 to 738 thousand by 1987 i.e. it has increased fourteen times. On the demand side, the tractor is used mainly for three kind of operations - ploughing, threshing and transport and in all these operations the tractor replaces both bullock power and human labour. Although bullocks serve many functions in a typical rural households in India besides their use as a source of energy for ploughing, harvesting, transport and water lifting, they are a source of farmyard manure also. However an advantage of the tractor is that it saves time and enables a particular agricultural operation to be completed within a given time limit. The need for timely ploughing is greater with the new seeds and in this tractors are more reliable than bullocks, which takes much longer. The tractor is also extensively used as a means of transport for carrying fertilizers, seed, crops output and even people.

Check Your Progress 2

- 1) Describe the food situation in India on the eve of introduction of HYV in fifty words.
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- 2) What was the new strategy chalked out in the fourth plan to increase production explain in three sentences.
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- 3) Describe the major characteristics of new technology in three lines.
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- 4) Mark 'T' for True or 'F' for false.
- i) Possibility of increasing production by expansion of area had exhausted by mid sixties ()
 - ii) Mechanisation of agriculture was the major plank of the HYV technology ()
 - iii) Success story of HYV programme is limited to rice and wheat only. ()
 - iv) Fertilizer input per hectare in India is higher than DPR Korea & Japan. ()
 - v) Irrigation is a pre-condition for the successful introduction of HYV technology ()

14.5 LET US SUM UP

At the time of independence, Indian agriculture was dominated by a large class of poor peasants and landless laborers. A large percentage of the cultivated area was owned by small percentage of rich peasants and landlord-cum-money lenders. The modes of production were primitive. The agrarian relations could be characterised as feudal and semi-feudal. The peasantry was exploited in terms of rack renting, insecurity of tenure, forced labour, usuary and so on. This had led to the impoverishment of the peasantry and stagnation of agricultural production. Therefore immediately after independence agrarian reforms were initiated. The reforms were related to the abolition of intermediaries, redistribution of land through land ceiling, Security of tenure and consolidation of holdings. The agrarian reforms failed to solve the land question through abolition of landlordism. Abolition of intermediaries left inequalities of land ownership and the position of the sharecroppers landless laborers uncharged. Nevertheless it helped to confer permanent, heritable and transferable rights on the occupants. The principal objective of tenancy reforms to convert tenants into owners of the land they cultivated could not be achieved. It is now well recognised that if redistribution of land was the main objective of the ceiling laws, this was not realized at all.

The food situation in India on the eve of introduction of HYV was alarming. Even the possibility of importing foodgrains had exhausted due to the uncertainty in world supply of foodgrains especially in the face of increasing demand from food deficit regions of the world. On the other end possibility of increasing production by expansion of area had exhausted and the only option left was to increase productivity. Exactly at that time an improved varieties of seeds of wheat and rice, which were more responsive to fertilizer and irrigation, became available. This led to impressive growth of production of wheat and rice output by a spectacular increase in the productivities of these crops. Expansion of area under high yield varieties of seeds was matched by the increasing application of technical inputs. The adequacy of the fertilizer supply was a major pre-condition for the success of this technology. Another crucial input was the assured irrigation. The availability of water all the year round through the irrigation networks initially and tubewell irrigation later on not only helped in increasing the productivities of the HYV crops but also resulted in increasing cropping intensity to increase the per unit productivity of land. Although mechanization especially tractors and combine harvesters were instrumental in replacing both bullock power and human labour nevertheless they had an advantage in saving time by enabling certain agricultural operations to be completed within given time, thus leading to higher intensity of cropping on the one hand and increasing productivity by minimising losses on the other.

14.6 KEY WORDS

Agrarian Reforms: mean the reforms relating to the abolition to intermediaries, redistribution of land through imposition as land ceiling, security of tenure and consolidation of holdings.

Federal Agrarian Relations: Exploitation of formers in terms of lack renting insurity of tenure, forced labour usuary etc. which led to the impoverishment of the peasantry on the one hand and the stagnation of agricultural product on the other.

Abolition of Intermediaries : Removal of intermediaries (zamindar) because they exploited the farmers with abolition of intermediaries. A direct relationship had been established between the state and the farmer.

Tenancy Reforms : Means improvement in land tenure system. This reform includes (a) security of tenure, (b) regulation of rent, (c) providing ownership.

Fixation of Ceiling on Land Holding: This is a re-distributive measure, which includes redistribution of land among landless agricultural labourers and marginal farmers.

14.7 SOME USEFUL BOOKS

Khusro, A.M. (1973), *Economics of Land Reform and Farm Size in India*, Macmillan, Delhi.

Joshi, P.C. (1976) *Land Reforms in India, Trends and Perspectives* Allied Delhi.

Rao C.H.H. (1975), *Technological Change and the Distribution of Gains in India Agriculture*, Macmillan Delhi.

Rao C.H.H. (1994), *Agricultural Growth, Rural Poverty and Environmental Degradation in India*, Oxford University Press Delhi.

14.8 ANSWERS/HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) See Section 14.2 and attempt your answer.
- 2) Agrarian reforms means the reforms relating to the abolition of intermediaries, redistribution of land through fixation of land ceiling, security of tenure and consolidation of holdings.
- 3) Reasons for some success of abolition of intermediaries are : (a) Anti-nationalist character of the intermediaries, (b) Prolonged struggle of the peasantry against Zamindars, (c) removal of Zamindars for political power in rural areas, (d) providing better basis for admission of agricultural developments.
- 4) (a) T (b) T (c) T (d) T (e) T

Check Your Progress 2

- 1) See Section 14.4 and attempt your answer.
- 2) See Section 14.4 for your answer.
- 3) (1) T (2) T (3) T (4) T

UNIT 15 NON-FARM SERVICES

Structure

- 15.0 Objectives
- 15.1 Introduction
- 15.2 Role of Credit in the Development of Agriculture
 - 15.2.1 The Importance of Credit
 - 15.2.2 Role of Credit in Traditional Agriculture
 - 15.2.3 Role of Credit in Modern Agriculture
- 15.3 Role of Marketing in Agricultural Development
 - 15.3.1 Marketing Efficiency
 - 15.3.2 Warehousing and Storage
- 15.4 Agricultural Price Policy
 - 15.4.1 Functions of Agricultural Prices
 - 15.4.2 Evolution of Agricultural Price Policy in India
 - 15.4.3 Public Distribution System
 - 15.4.4 Trends in Public Distribution
- 15.5 Let Us Sum Up
- 15.6 Key Words
- 15.7 Some Useful Books
- 15.8 Answers/Hints to Check Your Progress Exercises

15.0 OBJECTIVES

This unit introduces you to the role that non-farm services like agricultural credit, marketing and warehousing, and agricultural price policy along with public distribution system have played in increasing the food grains production and distribution. This unit will help you to:

- discuss the role institutional credit can play in increasing agricultural output;
- describe the functioning of the market in the production and distribution of agricultural products;
- analyse price policy and its impact on the growth of food grains production; and
- evaluate the success of the public distribution system in making food grains available to the poor.

15.1 INTRODUCTION

In the previous two units, you have been introduced to the broad contours of the Indian agricultural scenario. We saw that Indian agriculture has made rapid strides in the last several decades, particularly since the mid-sixties. The two units before this dealt with the technological aspects as well as some non-institutional factors such as land reforms. This unit will consider, as it were, different factors of production. Credit, marketing and pricing are three crucial areas in agriculture.

The New Technology requires considerable amounts of purchased inputs. This necessitates credit for the farmers to obtain those units. Moreover, farmers must be assured that what they produce will get a remunerative price, and that they will have an incentive to produce further. Thus, price is an important policy variable, and the unit has a detailed discussion of agricultural pricing. However, if the price of foodgrains is very high so that producers in the agricultural sector have incentive, this high price often makes it difficult for the poor to afford food. Hence the government has a

responsibility to provide foodgrains at subsidized prices. This brings in the issue of Public Distribution System, which gets considerable attention in the unit. The unit also has a discussion about the marketing of agricultural production, including aspects of storage and transport.

15.2 ROLE OF CREDIT IN THE DEVELOPMENT OF AGRICULTURE

15.2.1 The Importance of Credit

It is a recognised fact that agriculture, like any other industry, needs credit for its sustenance, the amount and duration of it depending on the time involved in the process of production. The inability of the agriculturist to carry on his operations without credit is a fact proved by history and evidenced by the poverty and indebtedness of the persons engaged in agriculture. Credit temporarily transfers purchasing power from one individual or organisation to another. It ideally brings together substantial financial resources with farm management skills to benefit both giver and the receiver. But unfortunately, it may be used in a way, which is damaging to one or both parties.

The role of credit in augmenting agricultural production has been a subject of controversy. The limited role of credit in the development of agriculture has been attributed to the extreme uncertainties associated with agricultural production and the marketing of its produce.

15.2.2 Role of Credit in Traditional Agriculture

The nature of agriculture found in India at the time of independence may be termed as traditional agriculture. Traditional agriculture is characterised by subsistence farming in which the extended agricultural family provides as much as possible for its own direct needs of food. Since the entire energy of the farming community is diverted for the production of food grains, it is logical that farmers are less market oriented and are reluctant to raise cash crops.

Those who attribute under development in agriculture to socio-cultural factors are of the opinion that in a traditional society the expansion of agricultural credit does not always bring about an adequate increase in agriculture production. In the initial stages of agricultural development, credit to farmers will have a predominantly consumptive character. Many factors are responsible for this including the subsistence nature of the farming, poverty reflected in lack of the food reserves, improvidence, crop failures and other calamities, a rapid increase in population, the traditional customs of rural life which often involve heavy expenditure for religious and social ceremonies.

In traditional agriculture, the dividing line between household and farm expenditure is very thin; and it is impossible to draw a clear borderline between credit for consumptive and credit for productive purposes. Thus, the incentives and possibilities of using capital for stepping up of agricultural production are very limited in the early stages of development.

However, it will be a folly to underestimate the need for credit in traditional Indian agriculture. The farmers try their best to finance these investments out of their own resources. Due to acute poverty and cultural constraints, their saving is inadequate

which makes it inevitable for them to depend on outside finances. In the absence of institutional provisions, they fall an easy prey to the trap of the moneylenders who provide them credit at an exorbitant rate of interest knowing fully well that farmers, cannot pay back the amount in any circumstances. To quote the All-India Rural Credit Survey, "If credit is sometimes fatal, it is often indispensable to the cultivators. The agricultural credit is usually the least institutional and most dispersed of all types of finance".

There is nothing wrong or peculiar in Indian cultivators borrowing, but the over-dependence of the farmers on landlords-cum-moneylenders-cum-traders and diversion of credit for consumption purposes aggravates the poverty of the farmers and the state of Indian agriculture to a large extent. The evils associated with the credit from these moneylenders prompted the government to introduce legislation to drive them out of business and free the agriculturists from their clutches. It was realised that these non-institutional agencies should be replaced by the institutional agencies to provide credit to the agricultural sector.

15.2.3 Role of Credit in Modern Agriculture

In modern agriculture, the farmer assumes the role of an entrepreneur whose approach to production does not essentially differ from that of the industrialist. Agriculture becomes fully commercialised and the farmer produces for the market, being guided by the profit motive.

The 'new technology' often called the Green revolution, about which you read in Unit 13, may be divided into two categories: one depending on biological sources of energy and the other on mechanical sources of energy. Biochemical technology is 'land-augmenting' and 'labour absorbing' in nature. It continues to employ the traditional implements along with the human and animal labour but makes sufficient use of irrigation, fertiliser and high yielding varieties of seeds.

Mechanical technology displaces human and animal labour and makes use of machines, like tractors, threshers, harvest combines etc. to carry out agricultural production. This type of technology is 'labour displacing' in nature.

In the event of such a situation, the credit institutions have to enter the field and play dynamic role in modernising agriculture and increasing productivity.

Agricultural credit demonstrates a clearly dynamic character when a major portion of it is utilised for financing the new 'technology package'. Agricultural development is a complex and inter-related problem. One should not overlook the fact that agricultural credit is only one of the many factors playing a part in the complicated process of stepping up agricultural production. The FAO study team rightly observed that far from being a panacea, credit was not even the harmless patent medicine, which it was often thought to be. Nevertheless credit from institutional agencies have a positive role to play especially in the context of new technology and because of relatively less burden it puts on the farmers can make it a good source for augmenting land productivity. Besides credit from institutional agencies is not exploitative in nature like that from money lender-cum-traders.

The term 'institutional agencies' includes those institutions which are under the official control of the government in laying down the terms and conditions associated with the provision of agricultural credit. These institutions come under the direct control of the government in directing the flow of rural credit in a broad policy framework, which is consistent with the process of national planning and development.

With these technological changes the importance of capital in agricultural production in India has been rising remarkably especially where HYV and the intensive development programmes have been in progress. As a consequence the demand curves for purchased inputs, e.g., seeds fertilisers, pesticides, irrigational infrastructures, agricultural machinery and equipment, etc. have shifted upwards leading to increased outlays by farmers on various inputs. The marginal value productivity of capital in agriculture having increased, the farmers have come to depend more and more on borrowed capital or external finances (table 1). This has given new dimensions to the problems of agricultural credit.

The institutional agencies are in a better position than the non-institutional agencies to appreciate these social needs and act accordingly. Among the institutional agencies, the co-operative credit societies keep a place of pride providing agricultural credit after being re-organised from time to time to suit to the requirements of the Indian agriculture. The All India Rural Credit Review Committee made the assessment of requirements of agricultural credit and the possibilities of the co-operatives fulfilling this requirement. Keeping in view the gap between the total resources of the co-operatives on the one hand and the growing demand for credit in the agricultural field on the other, the committee considered it necessary to bring agencies such as commercial Banks, including the State Bank of India and its subsidiaries, in the field of agriculture credit. Thus the 'multi-agency' approach to rural credit was initiated.

With the nationalization of 14 major commercial banks in July 1969 and the six others in 1980, the commercial banks have, no doubt, become more responsive to the needs of agriculture. After nationalisation, the banks opened a large number of branches in rural areas and have increased their advances to these areas considerably. However, the introduction of commercial banks into the rural sector could not fully meet the requirements of agricultural credit in a satisfactory manner. As a result a new agency, RRBs, (Regional Rural Banks) was created with the purpose of filling up the gaps in Rural Credit Structure.

15.3 ROLE OF MARKETING IN AGRICULTURAL DEVELOPMENT

Traditional agrarian societies are highly self-sufficient at the village level and even at the level of individual households. Hence in societies at this stage of development, the demand for commercial marketing services such as the transport, processing and storage of food, is extremely limited. But as a consequence of economic growth and development, the volume of economic resources devoted to marketing of agricultural products inevitably grows.

Marketing and production are interdependent. Producers must be convinced that a remunerative market exists for their products, particularly 'new' products, before they can be induced to produce commercially. An attractive market prospect combines a 'good' price with an assured sales outlet. This simple self-evident truth has some times been overlooked in agricultural development planning.

Development of agricultural marketing on proper lines is imperative for sustaining the growth of agricultural production. An efficient marketing system must ensure best possible returns for the produce to the farmer, minimum incidental costs and reasonable prices to the consumer. The system must be capable of mopping up the increasing marketable surplus, developing a systematic mechanism for price determination and fostering competition. It is generally believed that the indigenous and traditional modes of private marketing system for agricultural products in India

is exploitative, economically inefficient and operates with high profit margins. However, recent research has confirmed that the private food grains marketing in India operates quite efficiently by standard economic criteria of a perfect market.

Unlike the rapid increase in production in the post green revolution period, the distribution system has not developed adequately to cope with the increased production. The perusal of history of economic development reveals that the investment in the development of market structure lagged behind the development of production technology and in most cases adversely affected the production trends. Thus, enough resources have not gone into the improvement of market structure, which was needed to provide incentives for increasing agricultural production. Ruttan and Hayami stressed that market structure reforms are an important pre-requisite for successful agricultural development. Increased agricultural productivity, however, will not translate into a proportionate increase in the level of real income in an economy with an inefficient distribution system. Hence, the economic need for an efficient marketing set up is imperative.

Agricultural planners should realise that unless there is an efficient marketing system, the economic incentives cannot reach the producers. The basic aim of an orderly marketing system should be to ensure that the producer realises a reasonable price for his produce. Secondly he should not be subjected to traditional malpractices and should pay as little as possible for the services of marketing of his produce. Unless these basic criteria of marketing are met and an orderly marketing environment is built, the majority of agricultural producers, who are mainly small and marginal farmers, will remain deprived of the just price of their produce.

Production and marketing of produce are interdependent in the sense that products in the field have no value unless they are converted into a consumable form and reach the ultimate consumer at his convenience. Since the greater part of farm output in many countries is not consumed by the people who produce it, it must, like industrial products, be sold to satisfy the consumers' demand. There is an increasing awareness that it is not enough to produce a crop; it must be marketed. Marketing of agricultural products is a process, which starts with a decision to produce a saleable farm commodity. It involves an integrated market system, both functional and institutional.

15.3.1 Marketing Efficiency

Agricultural marketing should not be misunderstood merely as an exchange process between sellers and buyers whereby the prices of commodities (agricultural commodities in this case) by the forces of demand and supply. Marketing is a process that takes place on the supply side of the market. It is a process whereby, given the prices of agricultural commodities, these commodities are sought to be made available to consumers through various means, and consumers are sought to be persuaded to consume these. Since the demand for agricultural commodities is generally inelastic, the marketing process usually involves assembling, grading, storage, and transportation and distribution activities apart from the pre and post-harvest operations. In some cases, packaging is gaining in importance. With development, marketing gradually becomes more complex than a simple producer-consumer relationship. Various intermediaries come in between these two extremes to facilitate marketing. Producers are the people who feed the marketing system and as such they are the people most affected by its inefficiency. From the producers' viewpoint an efficient marketing system is one, which gives maximum returns from products sold after deduction of minimum market charges so as to induce further production of these products.

It would be useful to distinguish between 'technical efficiency' and 'economic efficiency'. Technical efficiency relates to such matters as mechanisation and rationalisation of individual work processes. To be technically efficient, a marketing structure would have to utilise the best method available for every marketing job and to use these methods with maximum effectiveness. Economic efficiency, on the other hand, reflects the efficiency of the functioning of the marketing system. An economically efficient marketing system will ensure that the physical savings realized in improvements in the handling of the product are transmitted to producers as well as consumers in the form of reduction in money costs. It involves the elimination of wastes, high costs and exploitative profits. The principal means of ensuring this elimination is the pressure of competition. The more nearly perfect a market is, the closer it is to an economically efficient one and the stronger would be the possibility for minimising waste and exploitation. An economically efficient marketing system therefore must ensure highest possible returns for the produce to the farmer, minimum incidental costs and reasonable prices to the consumers.

In general, economic efficiency implies operational and pricing efficiency. Operational efficiency refers to the input-output ratio and focuses on reducing costs in the performance of physical marketing functions, e.g., storage, transportation, etc. The pricing efficiency refers to the situation where the sellers get the value of their produce and the consumers receive the value of their money. Pricing efficiency improves the buying, selling and pricing aspects of the marketing process so that it remains responsive to consumer directives. Uniform pricing over the entire market area is an important attribute of pricing efficiency. Over the years, the policy-makers have emphasised more on the pricing efficiency to protect both the producers and consumers from the exploitation of the middlemen.

In India, agricultural markets being viewed as imperfect, exploitative and unhelpful to the development of agriculture, has been gradually changing over the years. However, the general belief that traders in these markets manipulate prices through malpractices and reap excessive profits, has not much changed. However, some researchers recently have found that most agricultural markets are benefiting farmers and contribute substantially to the economic development process. It has been observed that agricultural commodity market, though, appears to be competitive, but is restrained by recurring uncertainties. These uncertainties are related to supply and demand of agricultural commodities, especially in seasonal periods when supplies are not sufficiently available to carry out necessary adjustments after demand changes are recognised. As a result the short run prices may be above or below the expected levels, which cannot be achieved under pure competition. It is imperative that arrangements should exist for efficient movements of the farmers' produce to the consumers and for adequately and timely supply of superior inputs to the farmers.

In terms of farmers' economic benefits from the operations of the marketing system, it is essential that an efficient marketing system is brought about by regulation of the marketing system through rules and norms formulated by society. Where society itself is unable to ensure the operation of these norms, government attention has been focussed on agricultural marketing reforms since 1879. However, creation of an orderly and efficient marketing system will go a long way in benefiting the producers as well as consumers.

A major breakthrough in agriculture marketing reforms took place after the creation of regulated markets in most of the states. These regulated markets function with clear-cut rules and regulations with regard to open auctioning and fixed marketing charges including those for various operations. These markets generally provided

adequate infrastructure in terms of marketing yards and succeeded in reducing many illegal exaction earlier charged by the traders.

15.3.2 Warehousing and Storage

For efficient management of food economy, the government set up in 1965 the Food Corporation of India. It undertakes procurement, storage, imports, transport and distribution operations. Storage function is equally important for managing the India's food economy. However there is a lack of information on who stores how much grain and for how long is not available for most of the commodities. It is well known that large farmers all over the country also possess storage facilities to certain extent, but it is not possible to ascertain the quantitative magnitude of the stored commodities at the farm level and the duration of storage. The behaviour of wheat market arrivals confirms that medium and large farmers in the Punjab and Haryana stored considerable quantities of wheat. Rice millers arrange for storage facilities as a part of the lay out of; mill, but for various reasons data on the quantities stored by them are not available.

Private traders are the most prominent as far as storing is concerned. However there are no estimates available of the magnitude of storage by them. Some researchers have tried to estimate the length of storage for different commodities and also the extent of storage losses sustained. Besides farmers and traders considerable quantities of grain are stored by central and state governments in their warehouses as also in storage space hired from other private and public agencies. The major government agency storing food grains is the Food Corporation of India, while the prominent government agencies renting out storage space are the central and state warehousing corporations.

There is an urgent need for developing on-farm storage facilities in the surplus areas. The government has already formulated a scheme for this purpose, which should help in promoting orderly marketing of agricultural produce. There is, however, another dimension to this problem. The deficit states need to be assured they could get all the grain they want all the year round for feeding their public distribution system. This can best be done by strengthening storage facilities in the deficit area to form an integral part of the National Food Security System. Storage facilities should be further expanded in the cooperative sector. The cooperative storage programme is an integrated one and aims at providing facilities for distributing agricultural production requisites, marketing of agricultural produce and supplying essential consumer goods.

Check Your Progress 1

- 1) Explain the role institutional credit can play in modern agriculture in fifty words.

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- 2) Explain the role the efficient market can play in agricultural progress in fifty words.

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15.4 AGRICULTURAL PRICE POLICY

Agricultural prices have shown a tendency for wide fluctuations in inter and intra-year. The three main factors responsible for these fluctuations are :

- a) relatively low price elasticity of demand for agriculture commodities.
- b) biological nature of agricultural production.
- c) seasonal nature of the agricultural industry i.e. the output becomes available at particular time/times in a year.

The price elasticity of demand for agricultural commodities is not only lower than that of most industrial products but also even less than unity in most cases. As most of the agricultural commodities are essential for survival therefore their demand is inelastic, although it is less inelastic in developing economies than in developed economies. Therefore in a drought year, there is decline in production, the rise in prices will be more than proportionate to change in production. Similarly in a year of bumper harvest, prices will decline more than proportionately to increase in production. It means that 1 percent increase in supply would result in more than 1 percent decline in price and vice versa.

Apart from the constraints that the biological nature of production imposes on achieving the desired level of output, production in the agricultural sector cannot be adjusted as rapidly as is possible in the case of factories. The time lag between the changes in agricultural production capacity and the resultant output makes the matching of supplies with demand all the more difficult, particularly over the short periods.

This is particularly true about those developing economies that have a low price elasticity of supply. It is this inelastic nature of supply and demand that causes severe fluctuations in agricultural prices in developing economies. This is because of the fact that there are millions of producers big as well as small in the agricultural sector, scattered all over the country, each believing that the demand for his product is perfectly inelastic, without realising that the demand for aggregate agricultural products is highly elastic. Agricultural production experiences year-to-year variations due to weather conditions. Secondly the production of most of the agricultural commodities is seasonal ; that is the output arrives in particular period which over swamps the market where as consumption is evenly spread over the whole year. In such a situation the prices of agricultural commodities would naturally be depressed during the post harvest period and would tend to rise during the period of lean supply when the farmers have sold out most of their produce.

15.4.1 Functions of Agricultural Prices

Agricultural prices have three important functions (a) to allocate resources (b) to distribute incomes and (c) to induce capital formation.

- a) Agricultural prices give signals to producers as well as consumers regarding the level of production and consumption changes in the relative prices of the various agricultural commodities affect the allocation of resources among agricultural commodities by the producers and allocation of expenditure on consumption of these goods by the consumers just to elaborate if the price of a given commodity increases relatively to all other agricultural commodities, then the producers would be allocating more resources, i.e. land and other inputs, for the production of that commodity. So the extent substitution is possible, consumers would try to substitute high-priced commodities by cheaper commodities.

Agricultural prices, on the one hand determine the income of the farmers and on the other, affect the level of living of the people living in other sectors of the economy as agricultural commodities form part of the wage goods. changes in agricultural prices thus affect the transfer of income between agricultural and non-agricultural sectors of the economy.

15.4.2 Evolution of Agricultural Price Policy in India

Agricultural price policy in India had evolved through two distinct phases. Policy upto 1965. The price policies originated during the war to deal with the problems of inflation and acute food shortages. These policies were consumer oriented and attempted to stabilize prices at relatively low levels so as to keep down the cost of living as well as to control inflation. These policies included (i) procurement by the government of locally available surpluses of food grains at procurement prices which were lower than market prices; (ii) imports of food grains; and (iii) equitable distribution of available supplies to consumers at least in the statutory or partial stationing. these policies were continued till June 1952 when a policy of gradual relaxation of controls and a shift to free trade was undertaken. This change in the policy was mainly due to the realisation that the continuing food crises was likely to be perpetuated in an artificial manner as a result of the high commitments undertaken by the Government on the one hand and the difficulties of procurement on the other hand. The real solution is not imports or controls on procurement and distribution but substantial increase of production within the earliest possible time that can solve the Indian food problem. It may be pointed out that import of food grains during the period 1951-52 to 1964-65 and their distribution at prices substantially below the open market prices. this helped in stabilizing the prices even in the wake of shortages nevertheless it killed the incentive to produce more thus leading to stagnation of production. Therefore the third plan initiated a price policy keeping in view the interests of consumers as well as producers so as to give a boost to the production.

In recognition of the importance of assessing reasonable output prices to the farmers, in order to motivate them to adopt improved technology and to promote investment by them in the farm enterprises The agricultural prices commission was established in 1965 for advising the government on agricultural price policy on continuing basis. The thrust of the policy in 1965 was to evolve a balanced and integrated structure to meet the overall needs of the economy and with due regard to the interests of the producer and the consumer. The Commission was required to keep in view.

- a) the need to provide incentive to the producer for adopting technology and for maximising production;
- b) the need to ensure national utilization of land and other production resources; and
- c) the likely effect offspring on the rest of the economy particularly on the cost of living, level of wages, industrial cost structure, etc.

In 1965, the highest priority was to maximise production since the country was passing through a critical shortage of food grains. When an overall balance between demand and supply was in sight in 1980, the criteria for Commission were modified; and the Commission was called upon to consider;

- a) the need to provide incentive to the producer for adopting improved technology and for developing production pattern broadly in the light of national requirements;
- b) the need to ensure national utilization of land, water and other production resources;

- c) the likely effect of the price policy on the rest of the economy particularly on the cost of living, level of wages, industrial cost structure, etc.
- d) terms of trade between agricultural sector and non-agricultural sector.

15.4.3 Public Distribution System

It is common for governments in many countries, developed or developing, to provide in some form or the other, food grains, and other essential items of consumption, to the vulnerable sections of population, variously defined, at subsidised prices. In India, public distribution has been an important instrument in the management of food economy since 1939 when public distribution was initiated.

The broad objectives of PDS in India have been three fold:

- a) to provide minimum quantities of food grains to vulnerable consumers (with high income elasticity and low price elasticity) on a year-to-year basis so as to maintain per capita food availability and stabilise consumption in the face of variations in food production;
- b) to stabilise prices by supplying food grains through PDS at prices, which are below market prices and thus act as an anchor to inflation;
- c) to transfer income to the low-income consumers to raise their nutritional standards and thus act as an anti-poverty measure.

One can view PDS either as a tool of macro-economic management or as an anti-poverty device. In the former, the main concern of the policy-makers is management of shortages and droughts, rationing, imports, ensuring availability in the face of fluctuations in output, checking food-inflation and keeping wage bills low.

As an anti-poverty device, PDS aims at transferring incomes to low-income persons and the programme becomes more targeted towards poor persons/areas. It aims at raising nutritional standards of vulnerable groups of persons and ensuring household level food security.

The PDS has evolved through three distinct phases. In the first phase (since its inception to the beginning of the green-revolution), it was mainly concerned with ensuring adequate supplies to urban consumers and with overall management of shortages through rationing and imports. In the second phase (till end seventies), supplies became comfortable and the PDS was seen as the consumer counterpart of public procurement programmes. In the third phase (eighties), government launched wage employment programmes to ensure economic access to food. Income transfer through these programmes became the main feature of PDS in the 1980s with renewed emphasis on backward (such as tribal) areas. the anti-poverty stance of PDS has become more sharply focussed in recent years.

15.4.4 Trends in Public Distribution

The average quantity of rice and wheat distributed through fair price shops during 1965-67 was about 9 million tonnes, which went up to 15.8 million tonnes during 1988-90. At this level, it amounted to 18.6 per cent and 15 per cent of net combined availability of the two commodities. Wheat distribution accounted for as much as 42.5 per cent of its availability in 1965-67 and rice 11.2 per cent. During 1988-90, the share of wheat distribution in availability was 17.3 per cent and that of rice 14.5 per cent. Total public distribution has recorded significant increases since 1980. this is largely contributed by rice, which experienced technological breakthrough and registered quantum jump in production. ; The share of wheat in total distribution,

which was as high as 66 per cent in 1965-67, declined to 45 per cent in favour of rice in 1988-90.

Statewide distribution shows that Kerala, Maharashtra, Tamil Nadu, West Bengal and Delhi are significant recipients of food grains. Their combined share in rice and wheat distribution was about 48 per cent in 1990 through their share in the population below the poverty line was only 26 per cent in 1987-88. In contrast, shares of Bihar, Madhya Pradesh, Rajasthan, Orissa and Uttar Pradesh are relatively small. Together they shared less than 16 per cent of rice and wheat though their share in the poor population was about 52 per cent.

Per capita distribution of cereals (rice and wheat) increased from 17.22 k.g. in 1973-74 (average of calendar years 1973-74) to 21.74 kg in 1988-89. Distribution of wheat registered a decline from 11.16 kg. to 10.14 kg. but was more than compensated by increase in distribution of rice from 6.06 kg. to 11.6 kg over the same period. However, there are state-level differences.

For some states, share of PDS supplies in per capita consumption is high reflecting high degree of dependence on centre for food supplies. We have estimated this degree of dependency at two points of time, 1973-74 and 1988-89. It is defined as per capita distribution as a percentage to per capita consumption of rice and wheat. There are vast inter-state differences in the degree of dependence. Nearly half of consumption in Kerala and Maharashtra in 1973-74 was contributed by public distribution. Between the two points of time, some states show sharp increase in the shares (most notably Tamil Nadu) while others show a decline (sharpest being in Maharashtra).

Check Your Progress 2

1) What role do you envisage for warehousing and storage in agricultural development in fifty words?

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2) What are the functions of agricultural prices in an Economy. Explain in fifty words.

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3) What role the Public Distribution System has been playing in making food available to the poor? Explain in fifty words.

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- 4) Briefly give an account of the operation of the Public Distribution system in India.

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15.5 LET US SUM UP

This unit was the third and last one on the agricultural sector in India. The unit looked at non-farm services in agriculture. These were institutional services, such as marketing and credit. The unit also looked at two non-farm services that are important components of the government's policy in agriculture. These are the price policy about agriculture and the public distribution system which aims at providing essential food-grains to the poor at subsidised prices.

The unit discussed the importance of credit for agriculture and described the major sources of credit-both institutional and non-institutional. Then the unit went on to describe the scenario regarding marketing of agricultural goods. After this we talked about the importance of price policy for agriculture and examined how the government uses price policy as an incentive for the farmers to produce more and to increase the marketed surplus. The other set of prices that are important is the price that the poor are required to pay for the goods they purchase. The poor are often unable to pay the market price and the government subsidises the price. This imposes a cost on the government and the government has to have a suitable policy regarding the public distribution system. The unit described the working of the public distribution system in India.

15.6 KEY WORDS

Agricultural Price Policy: a policy package by the government to assure farmers of minimum, or support price and procurement price to induce them to enhance production.

Issue Price: the price at which ration shops are to sell food-grains under the public distribution system.

Non-institutional Credit: credit provided by moneylenders, nidhis etc which are outside the formal credit providing agencies such as banks, cooperatives, RRBs, NABARD, etc.

15.7 SOME USEFUL BOOKS

Dantwala M.L. et al(ed) 1986, *Indian Agricultural Development Since Independence*, Oxford & IBH Publishing Co. Pvt. Ltd. New Delhi.

Government of India 1976, *National Commission on Agriculture*, Ministry of Agriculture and Irrigation.

Kabra K.N. and Ittyerah A.C. 1992, *The Public Distribution System in India*, Eastern Books, N. Delhi.

Tyagi D.S. and Kahlon A.S. 1983, *Agricultural Price Policy in India*.

15.8 ANSWERS/HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) See Sub-section 15.2.3 and answer.
- 2) Read Sub-section 15.3.1 and answer.

Check Your Progress 2

- 1) See Sub-section 15.3.2 and answer
- 2) See Sub-section 15.4.1 and answer
- 3) See Sub-section 15.4.3 and answer.

UNIT16 INDUSTRIALISATION: CONCEPTS AND PROBLEMS

Structure

- 16.0 Objectives
- 16.1 Introduction
- 16.2 Concept of Industrialisation
- 16.3 Components of Industrial Sector
 - 16.3.1 Types of Industrial Activities
 - 16.3.2 Use-based Classification
- 16.4 Regional Concentration of Industries
- 16.5 Industrial Sickness
 - 16.5.1 Definition of Sickness
 - 16.5.2 Incidence of Industrial Sickness in India
 - 16.5.3 Factors Responsible for Sickness in Large Industries
 - 16.5.4 Factors Responsible for Sickness in Small Scale Units
- 16.6 Let Us Sum Up
- 16.7 Key Words
- 16.8 Some Useful Books
- 16.9 Answers/Hints to Check Your Progress Exercises

16.0 OBJECTIVES

After going through this unit you should be in a position to:

- 1 Explain the concept of industrialisation;
- 1 Analyse various activities included in industry;
- 1 Analyse the problems created by heavy industry strategy of industrialisation;
- 1 Define industrial sickness; and
- 1 Explain factors responsible for industrial sickness.

16.1 INTRODUCTION

The attainment of Independence by India on August 15, 1947 made a tremendous difference to her industrial landscape. Indigenous enterprise was no longer required to function as the follower of foreign interests. At the time of Independence industrial production in India had declined but population was increasing. After Independence, the core strategy adopted was rapid industrialisation through investment on heavy, basic and machine-building industries. Investment in the heavy industries helps in building up a larger volume of capital stock. Also they lay the foundation for a strong and self-reliant economy, mainly through rapid expansion of all the sectors of the economy and by eliminating the dependence on imports of essential machinery and equipment.

In the beginning, as investment in the heavy sector was very high, gestation period was too long and profitability was low, the Government felt that heavy industries should be, by and large, in the public sector. The private sector was also expected to function in harmony with the overall aims and policies of economic

planning. The development strategy took India to the position of the tenth most industrialised country of the world. The industrial policy pursued in India would be discussed in the next unit. Here we confine ourselves to analysis of various segments of industrial sector and some of the major problems before the sector.

16.2 CONCEPT OF INDUSTRIALISATION

The United Nations Economic and Social Council (UNESCO) in 1963 defined industrialisation in this way: “Industrialisation is a system of economic development in which the major part of the national resources are used to develop a technically up-to-date, diversified national economy capable of assuring a high rate of growth for the economy as a whole and of overcoming economic and social backwardness.”

This definition of industrialisation emphasises the following factors:

- 1) Industrialisation involves a process in change of the technique of production from the outdated to a modern one.
- 2) Industrialisation is undertaken with a view to accelerating economic development so that the level of living of the people can be improved.
- 3) Industrialisation can establish a multi-sectoral base by modernisation and also develop a diversified national industry. This does not imply that the development of heavy or capital goods sector is a pre-condition of industrialisation. This may happen, but is not necessary. An economy can be industrialised in several other sectors and the surplus generated can be exported to acquire capital goods.

In a nutshell, this definition does not prescribe a rigid sequence to be followed in the industrialisation strategy of an economy.

As against this approach, in Marxist economic literature, the term ‘industrialisation’ is used in two different senses. In the narrow sense, it refers to the establishment and development of heavy and basic industries or production of the means of production. But in a broader sense, it signifies the completion of industrial revolution by adopting industrial (mechanised) methods of production for all sectors of the economy. In fact, these two meanings of industrialisation indicate the initial and the final stages of industrialisation.

In the initial stage, the process of industrialisation involves the setting up of heavy industry and as the process gathers momentum, and the economy is able to build an industrial base, the process of transferring the entire economy to industrial methods of production. The Marxist definition of industrialisation, therefore, prescribes a sequence of industrialisation by first developing the heavy industry or the production of the means of production and after creating an industrial base, to transform the entire economy in the second stage to industrial methods of production. In fact, the Marxist model of industrialisation had its origin in the character of development of the Soviet Union. The soviets in the initial phase undertook the development of heavy industry. The Soviet Union did have the potential to develop both light and heavy industry, since it had a large population, adequate primary resources in the form of availability of primary factors of production such as land, mines, transport and communications and large home market. Despite that the Soviet Union opted

and decided to transform the entire economy to the industrial methods of production at a later stage.

The conditions in India at the time of Independence were more or less, similar to those prevailing in the Soviet Union. It could develop both light and heavy industry. But the Indian planners opted for the development of heavy industry in the first stage. It may be clarified that heavy industry includes all industries producing capital goods, which enlarge the productive capacity of the economy. In this sense, it also includes railways and infrastructure in the form of hydro and thermal electric power projects. This policy of developing heavy industry was incorporated in the Industrial Policy of 1956.

Professor P.C. Mahalanobis, who was the architect of the Second Plan, clearly favoured the development of heavy industry as the basic strategy of Indian economic development. He was supported by Jawaharlal Nehru, the first Prime Minister of India who considered the development of heavy industry to be synonymous with industrialisation. Nehru categorically stated: “ If we are to industrialise, it is of primary importance that we must have the heavy industries which build machines”. In another reference, he mentioned: “There are some who argue that we must not go in for heavy industry but for lighter ones. Of course, we have to have light industries also but it is not possible to industrialise the nation rapidly without concentrating on the basic industries which produce machines which are utilised in industrial development.”

Nehru’s philosophy of industrialisation was incorporated in the Second Five Year Plan, which clearly stated:

“In the long run, the rate of industrialisation and the growth of the national economy would depend upon the increasing production of coal, electricity, iron and steel, heavy machinery, heavy chemicals and heavy industries generally – which increase the capacity for capital formation. One important aim is to make India independent as quickly as possible of foreign imports of producer goods so that the accumulation of capital would not be hampered by difficulties in securing supplies of essential producer goods from other countries. The heavy industry must, therefore, be expanded with all possible speed.”

Since private sector was not willing to invest in heavy industry, which had a long gestation period and a relatively low rate of return, the task of development of heavy industry was assigned to the public sector. It was, therefore, argued that public sector would be the engine of growth. However, private sector was expected to supplement the efforts of the public sector.

Check Your Progress 1

- 1) Discuss the meaning of industrialisation. Does the process of industrialisation require a rigid sequence of industries to be developed at various stages?

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16.3 COMPONENTS OF INDUSTRIAL SECTOR IN INDIA

In Block 1 we learnt that economic activities could be broadly divided into three categories, often termed as three main sectors of the economy, viz., primary, secondary and tertiary. In this sort of division, industrial activities are included in the secondary sector. You might have noticed earlier, in Block 1, that secondary sector includes two major groups: industry and construction. Thus construction activities, although constitute part of secondary sector, are not considered as part of industrial sector. The secondary sector has a share of about 27 per cent in GDP of India for the year 1999-2000 (at 1993-94 prices).

16.3.1 Types of Industrial Activities

The industrial sector includes three main activities: i) Manufacturing, ii) Electricity, Gas and Water supply, often referred to as Electricity, and iii) Mining and Quarrying, often referred to as Mining. Manufacturing activities has the largest share in the industrial sector, about 80 per cent.

Manufacturing activities are divided into two major sub-divisions: i) the Factory Sector, and ii) Non-Factory Sector. The factory sector is also called 'registered sector' or 'organized sector'. You may note that all industrial establishments, which employ 10 or more workers working with the aid of power (20 or more workers if working without the aid of power), are required to be registered under the Indian Factories Act, 1948. Hence, these industrial units are termed registered sector. The remaining industrial units, those employing less than 10 workers working with the aid of power (less than 20 workers if working without the aid of power) are included in the non-factory sector. This sub-sector is also termed as unregistered sector or unorganized sector. Generally it includes household enterprises and small-scale non-household enterprises. For the year 1999-2000 the share of various segments in industrial sector are given in Table 16.1.

Table 16.1: Percentage Distribution of Industrial Activities(for 1999-2000 at 1993-94 prices)

Sl. No.	Sub-Sector	Percentage Share
1.	Manufacturing (= a+b)	63.57
	a. Registered	42.01
	b. Unregistered	21.56
2.	Electricity	9.29
3.	Mining	8.55
4.	Construction	18.96
5.	Industrial Sector (= 1+2+3)	81.04
6.	Secondary Sector (=1+2+3+4)	100.00

Industry in India

The Central Statistical Organisation (CSO) collects data on all industrial units on a regular basis. Information on various production aspects of the factory sector is collected every year on a yearly basis in the form of Annual Survey of Industries. On the other hand, data on non-factory sector are collected every five-year.

The CSO has divided industrial establishments into 20 major industry groups. Such grouping is called the two-digit classification. For each group there is further sub-classification at 3-digit level. For example, in the 2-digit group paper and paper products we have further sub-groups of newsprint, printing and different paper products at the 3-digit level. We present these industry groups (at 2-digit level) in Table 16.2 along with their share in registered manufacturing.

Table 16.2: Share of Industry Groups in Registered Manufacturing Output

Industry code	Industry name	Percentage share (1997-98)
20-21	Food Products	9.32
22	Beverages and Tobacco	3.09
23	Cotton Textiles	4.27
24	Wool, Silk and Fibre Textiles	3.79
25	Jute and other Vegetable Fibre Textiles	0.95
26	Textile Products	2.52
27	Wood and Wood Products	0.29
28	Paper and Paper Products	2.82
29	Leather and Leather Products	0.91
30	Chemical and Chemical Products	18.57
31	Rubber and Rubber Products	6.19
32	Non-Metallic Mineral Products	4.47
33	Basic Metals and Alloys	15.95
34	Metal Products, except Machinery & Equipment	2.49
35-36	Machinery & Equipment other than Transport Equipment	14.52
37	Transport Equipment and Parts	7.98
38	Other Manufacturing Industries	1.88
Total		100.00

16.3.2 Use-based Classification

impact on economic development. For example, iron and steel is used as a basic intermediate input in manufacture of other products while bread is a food product used for consumption. Variation in the contribution of iron and steel, and food products set altogether different growth path for the economy. Thus it is important to group industrial activities according to the nature of products they produce.

Manufacturing activities are divided in to four major groups on the basis their end-use. Such use-based classification helps in identifying the structural changes taking place in the economy. These four use-based categories are i) Basic goods, ii) Intermediate goods, iii) Capital goods, and iv) Consumer goods. Consumer goods are divided again into two sub-categories: i) Consumer Durables, and ii) Consumer Non-durables.

Basic goods include salt, fertilizer, heavy chemicals, cement, basic metals, electricity and mining. Intermediate goods include textile spinning, wood, newsprint, leather, rubber products, petroleum products, and certain categories of chemicals and non-metallic mineral products. On the other hand, capital goods include all types of machineries, machine tools and transport equipment, except consumer durables. In the category of consumer goods, consumer durables include furniture and fixtures, office and household equipment, electrical and telecommunication equipment, vehicles, etc. On the other hand, consumer non-durables include food products, textile, footwear, paper products, drugs & pharmaceuticals, etc.

Check Your Progress 1

1) Distinguish between the following concepts:

- i) Secondary sector and Industrial sector
- ii) Manufacturing sector and Industrial sector
- iii) Consumer durables and Consumer non-durables

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16.4 REGIONAL CONCENTRATION OF INDUSTRIES

In Block 1 we discussed the problem of regional imbalance as one of the current issues in India. We learnt that some of the states have remained backward in terms of economic variables while others have fared better. Such disparity has widened over time, which implies that poor states have become poorer while rich states have become richer. Such a feature is prominent when viewed in terms of industrial development.

As the process of industrialisation progressed in the country, it was noted that it led to regional concentration of industries. Four states, viz., Maharashtra, Tamil Nadu, Gujarat and Andhra Pradesh have been the principal beneficiaries of industrialisation. From Table 16.3 you can observe that these four states accounted for 53 per cent of the total number of factories and provided 48.5 per cent of total factory employment during 1997-98. In terms of industrial output and value added, the share of these states was 51 per cent and 47 per cent respectively. This conveys disparities across states because these four states account for only 28.7 per cent of total population in India.

Table 16.3: Regional Location of Industries 1997-98

States	No. of factories	Fixed Capital	Person Employed	Output	Value Added	Population
Maharashtra	15.15	18.1	14.76	21	21.67	9.33
Tamilnadu	14.57	8.26	12.85	10.01	8.66	6.60
Gujarat	9.88	15.24	8.80	12.87	9.23	4.88
Andhra Pradesh	13.84	7.52	12.09	6.88	7.43	7.86
Total of above 4 states	53.44	49.11	48.5	50.75	46.98	28.7
Rest of India	46.56	50.89	51.5	49.25	53.02	71.3
All India	100	100	100	100	100	100

Note: Computed from Annual Survey of Industries 1997-98

Maharashtra has gained the most since the share of this state in total factory industrial output was 21 per cent and in value added was 22 per cent although it accounts for 9 percent population in the country. At the other extreme is Bihar, which has a very large population but ranks low in terms of number of factories. In terms of number of factories and industrial output produced, Uttar Pradesh ranks quite high. However, it has a very high percentage of population also. Thus it cannot be considered as an industrially developed state.

The regional imbalance in the growth of factories, value of industrial output and value added indicate that the country did not succeed to develop a balanced regional pattern of industrialisation. Secondly, poor states have low level of industrial development.

16.5 INDUSTRIAL SICKNESS

Indian industries, large, medium and small scale, are afflicted with the problem of industrial sickness. It would be of interest to study this problem.

16.5.1 Definition of Sickness

Industrial sickness is said to prevail when an industrial unit suffers losses year after year and in the process the accumulated losses lead to an erosion of its net worth. According to the Sick Industrial Companies (Special Provisions) Act (1985), a sick company means a medium or large (i.e., non-SSI) industrial company which at the end of any financial year accumulated losses equal to or exceeding its entire net worth and has also suffered cash losses in the financial year and the financial year immediately preceding such financial year. This definition does not cover government companies, shipping companies and small-scale industrial units/ancillary units.

However, before being declared a sick company, a unit does become 'weak'. It is necessary to initiate action at the stage when a unit is considered to be 'weak' so that it does not slide into the category of a sick unit. Any industrial unit is termed as weak if at the end of any accounting year, it has accumulated losses equal to or exceeding 50 per cent of its peak net worth in the immediate preceding five accounting years.

The term 'net worth' implies the sum total of 'paid-up capital' and 'free reserves'. Free reserves mean all reserves credited out of the profits and share premium accounts.

Since industrial sickness is widespread among small scale industries (SSIs), the definition of a sick SSI-Unit adopted in 1989 states: "A small industrial unit should be considered as sick if it has, at the end of any accounting year, accumulated losses equal to or exceeding 50 per cent of its peak net worth in the immediately preceding five accounting years".

16.5.2 Incidence of Industrial Sickness in India

Industrial sickness has been growing in India during the last decade. It has not only penetrated some of the traditional industries like cotton textiles, jute, sugar and paper but has also affected some important industries, established more specially after Independence like engineering, chemicals, iron and steel, cement, etc.

Growing sickness in the industrial sector results in locking up a substantial amount of bank credit loaned to industry. It, therefore, signifies wastage of resources.

Table 16.4: Industrial Sickness in India at the end of March, 1994

	No. of Sick Units	Total Bank Credit Locked-up (Rs. Crore)	Per cent of Total
1. Non-SSI Sick Units	1909	8151	59.5
2. Non-SSI Weak Units	591	1864	13.6
3. SSI Sick Units	2,56,452	3680	26.9
Total	2,58,952	13,695	100.0

Source: RBI, Report on Currency and finance (1994-95).

Industry in India

As on 31st march, 1994, in the large and medium industries sector (referred to as Non-SSI sector), there were 1,909 sick units in which total bank credit of the order of Rs.8151 crore was locked up. Along with them, there were 591 Non-SSI weak units, which had a total locked-up bank credit of the order of Rs.1,864 crore. Taking both of these together, in the large and medium sector a total of Rs.10,015 crore of bank credit was locked-up in 2,500 Non-SSI sick and weak units, accounting for nearly 73 per cent of the total bank credit. Besides these, there were 2,56,452 SSI sick units in the small-scale industries sector and a total of Rs.3680 crore were locked up in them. This implies that nearly 27 per cent of bank credit was locked up in SSI sick units.

Table 16.5: Industry-wise Classification of Sick and Weak Units in Large and Medium Industries

(as on 31st march, 1994)

	No. of Sick and Weak Units	Per cent of Total	Outstanding Bank Credit	Per Cent of Total
Textiles	466	18.7	2018	20.1
Engineering	297	11.9	1303	13.0
Chemicals	207	8.3	866	8.6
Iron and Steel	142	5.7	749	7.5
Electrical	87	3.5	768	7.7
Paper	134	5.4	405	4.0
Cement	67	2.7	336	3.4
Sugar	32	1.3	100	1.0
Jute	44	1.8	187	1.9
Rubber	52	1.7	129	1.3
Miscellaneous	975	39.0	3154	31.5
Total	2500	100.0	10,015	100.0

Source: RBI, Report on Currency and Finance (1994-95)

Data given in Table 16.5 reveal that five industries, viz., textiles, engineering, chemicals, iron and steel, and electrical accounted for a total of 1,199 weak and sick units in the large and medium industries and they accounted for a total of Rs.5704 crore of locked-up bank credit (about 57 per cent of total). This indicates a high degree of concentration of sickness in these five industries. There is no doubt that sickness was prevalent in paper, cement, sugar, jute, rubber, etc. but the magnitude in these industries was rather very small.

State-wise Analysis of Industrial Sickness

Data given in Table 16.6 provides information regarding the number of non-SSI (sick and weak units) and SSI sick units and the corresponding outstanding

bank credit across states. The number of units can be a misleading indicator because the units involved may be of different sizes. The more important indicator is outstanding bank credit. Taking this as the basis, the data reveal that seven industrially advanced states (Maharashtra, West Bengal, Uttar Pradesh, Andhra Pradesh, Gujarat, Tamil Nadu and Kerala), account for Rs.7376 crore (74 per cent of total) of outstanding bank credit in Non-SSI sick and weak units. In the SSI sick units, these 7 states account for Rs.2593 crore of outstanding bank credit (70.5 per cent of total). Taking all units together, a total of Rs.9,969 crore (72.7 per cent of total) outstanding bank credit was locked up in these states. This indicates a sufficiently high degree of concentration of industrial sickness. Maharashtra was at the top with locked-up bank credit of Rs.2677 crore (19.5 per cent), followed by West Bengal Rs.1761 crore (13 per cent), Uttar Pradesh Rs.1256 crore (9.2 per cent).

Table 16.6: Statewide Analysis of Industrial Sickness in India
(on 31st March, 1994)

	Number of Units		Outstanding Bank Credit (Rs.crore)			% of Total
	Non-SSI (Sick and Weak)	SSI Sick	Non-SSI (Sick and Weak)	SSI Sick	Total	
1. Maharashtra	436	21,350	1909	768	2677	19.5
2. West Bengal	292	56,083	1401	360	1761	12.9
3. Uttar Pradesh	201	33,915	948	335	1275	9.3
4. Andhra Pradesh	263	13,842	993	263	1256	9.2
5. Gujarat	222	7,812	862	235	1097	8.1
6. Tamil Nadu	207	8,125	644	428	1072	7.8
7. Karnataka	151	15,145	627	204	831	6.1
Sub-Total (1 to 7)	1772 (70.9)	1,56,272 (60.9)	7376 (73.6)	2593 (70.5)	9969 (72.7)	72.7
8. Kerala	85	10,792	519	169	688	5.0
9. Haryana	88	1,669	366	80	446	3.3
10. Bihar	71	17,063	322	114	436	3.2
11. Madhya Pradesh	117	9,795	283	144	427	3.1
12. Orissa	61	17,235	281	75	356	2.6
13. Rajasthan	82	14,665	225	75	300	2.2
14. Punjab	51	2,434	122	65	187	1.4
15. Assam	35	14,210	145	40	185	1.4
16. Others	138	12,317	376	325	701	5.1
Total (1 to 16)	2,500 (100.0)	2,56,452 (100.0)	10,015 (100.0)	3,680 (100.0)	13,695 (100.0)	100.0

Source: Compiled from RBI, Report on Currency and Finance (1994-95).

Table 16.7: Growth of Industrial Sickness in India

	Outstanding Bank Credit (Rs. Crore)		Average Annual Growth Rate
	Dec.1980	March 1994	
Non-SSI Units (Large and Medium)	1520	10,015	15.6
SSI Sick Units	306	3,680	24.9
Total	1826	13,695	16.8

Growth of Industrial Sickness

Table 16.7 provides information about the growth of industrial sickness during

1981-94. The data reveal that in the large and medium Non-SSI units, total outstanding bank credit increased from Rs.1520 crore in December, 1980 to Rs.10,015 crore in March, 1994. The annual average rate of growth works out to be 15.6 per cent. As against it, outstanding bank credit in SSI sector increased from Rs.306 crore in December 1980 to Rs.3680 crore in March 1994, indicating an annual average growth rate of 24.9 per cent. This implies that incidence of industrial sickness has been growing at a faster rate in the SSI units as compared with Non-SSI units. Taking both the sectors together, outstanding bank credit increased from Rs.1826 crore to Rs.13,695 crore, indicating an annual average growth rate of 16.8 per cent.

17.5.3 Factors Responsible for Sickness in Large Units

Two sets of factors are responsible for industrial sickness: external and internal.

Among the external factors can be listed (i) government policies pertaining to production, distribution and prices, (ii) change in investment pattern as a consequence of new priorities in the plans, (iii) shortage of power, transport, raw materials, and (iv) deteriorating industrial relations.

Government policies have contributed to industrial sickness in various ways. For instance, the controlled cloth scheme did not allow even the cost of cotton to be recovered and thus became a principal cause of sickness in the textile industry. Similarly, imposition of rigid control on the price of coal before nationalisation led to sickness in coal industry. But soon after nationalisation, the price of coal was increased two and a half times in a period of 3 years. Such irrational policies cause industrial sickness.

Another factor, which is responsible for industrial sickness, is the absence of a clear policy regarding wages and incomes. The government has been accepting very high wages and other perks for Reserve Bank of India, State Bank of India, nationalised commercial banks, LIC and similar high profit making enterprises. This induces workers in other undertakings/industries to demand higher wages. The government should accept the principle of equal pay for employees with equal or nearly equal qualifications across the board. If this is not done, the industrial atmosphere will be plagued by strikes.

Among the internal factors, the following are important: (i) mismanagement by owners, (ii) diversion of funds, (iii) wrong dividend policy, (iv) excessive overhead expenses, (v) lack of provision for depreciation of machinery and other equipment and (vi) over-estimation of demand.

16.5.4 Factors Responsible for Sickness in Small Scale Units

On the basis of various studies, the following factors are identified:

- i) Non-observance of basic principles of business management – Many small entrepreneurs start with small amount of initial capital and do not make efforts to build internal financial strength during good business years. They borrow for a short-term but invest in medium-term projects and create resource crunch. Their slender capacity to face difficult times results in sickness of such units.
- ii) Lack of management expertise – it has been observed that young entrepreneurs start with romantic ideas. They increase their overhead expenses by establishing

deluxe offices. They borrow at high rates of interest. They do not try to be particularly careful about keeping costs low. They also sell on credit to various customers and this results in many defaults. Thus, inexperienced management having inadequate knowledge of the market becomes the cause of sickness.

- iii) Under utilisation of capacity may be due to shortage of working capital, or lack of demand or non-availability of raw materials. All these factors contribute to sickness.
- iv) Non-payment by the principals - Many small units supply goods to large units and the principals who buy them do not pay small entrepreneurs for several months. This causes a shortage of cash flow and small enterprises go sick.

The government has been taking steps to prevent sickness at various levels. Sick Industrial Companies Act (SICA) was passed in 1985. The Reserve Bank of India established a special cell to monitor the performance of sick units. The government has also passed a law forcing the principals to pay the small-scale units within a time frame, failing which they have to pay a penalty. Despite various measures taken by the government, it has not been possible to control industrial sickness. The government should, therefore, re-examine the measures undertaken so far.

Check Your Progress 3

- 1) Define a sick and a weak unit as per Sick Industrial Companies Act (1985).

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- 2) List five principal causes of industrial sickness in large and medium units.

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- 3) List three major causes of industrial sickness in small-scale units.

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16.6 LET US SUM UP

Industrialisation involves a process of change in technique of production from an outdated to a modern and up-to-date technique. Marxist economic literature

prescribes two stages of industrialisation. The first stage involves the establishment of heavy and basic industries. The second stage involves the transformation of the entire economy to industrial methods of production. The Marxists suggested the Soviet model of industrialisation as the only correct method for non-industrialised developing countries. Non-Marxist economists do not prescribe any sequence.

Two major problems before industrialization in India are regional concentration of industrial units in certain states and sickness of firms. Certain states particularly Maharashtra, Gujarat, Andhra Pradesh and Tamil Nadu are industrially developed than other states.

Industrial sickness is said to prevail when a unit suffers losses year after year and in the process the accumulated losses lead to erosion of its net worth. If the erosion of net worth is upto 50 per cent, the unit is considered as 'weak unit', but if the erosion of net worth is 100 per cent or more, the unit is considered to be 'sick'.

Industrial sickness prevails in large and medium industries as well as in small-scale industries. High degree of concentration of industrial sickness is witnessed in five industries, viz., textiles, engineering, chemicals, iron and steel and electrical. On the other hand, high degree of concentration of industrial sickness is seen in seven states, viz., Maharashtra, West Bengal, Uttar Pradesh, Andhra Pradesh, Gujarat, Tamil Nadu and Kerala.

Industrial sickness measured in terms of outstanding bank credit has grown by 16.8 per cent per annum during 1981-94 for the industrial sector as a whole. In Non-SSI units, this growth rate was 15.6 per cent, while in SSI units, it was 24.9 per cent. Factors responsible for sickness of industrial units can be both external and internal to the firm. Government has initiated a number of measures to ameliorate the problem of industrial sickness. However, such efforts have not been effective in all cases.

16.7 KEY WORDS

Capital Intensive Industries: are those industries, which employ more capital per unit of labour.

Economic Infrastructure: refers to projects devoted to the production of electric energy, irrigation, transport and communications.

Heavy Industry: includes iron and steel, heavy machinery, engineering industries, electricity, coal, heavy chemicals which belong to the capital goods sector.

Industrial Sickness: is said to prevail when an industrial unit suffers losses year after year and in the process, the accumulated losses lead to erosion of its net-worth.

Industrialization: is a system of economic development in which major part of the national resources are used to develop a technically up-to-date diversified national economy capable of assuring a high rate of growth for the economy as

a whole and of overcoming economic and social backwardness.

Net Worth: implies the sum total of the paid-up-capital and free reserves. The free reserves mean all reserves credited out of the profits and share premium account.

Poverty Ratio: indicates the proportion or percentage of population below the poverty line.

Regional Imbalance: refers to unequal or disproportionate development of various regions within a country.

Social Infrastructure: refers to infrastructure in the form of health and educational facilities such as schools, colleges, universities, polytechnics, primary health centres, dispensaries and hospitals.

16.8 SOME USEFUL BOOKS

Ruddar Datt & KPM Sundaram (1999); *Indian Economy*, 38th Ed. S.Chand & Co., New Delhi.

Reserve Bank of India, *Report on Currency and Finance*, (1994-95).

Government of India (1961), *Problems in Third Plan- A Critical Miscellany*.

Planning Commission (1961), *Second Five Year Plan – The Framework*.

Shirokov, G.K. (1973), *Industrialisation of India* , Peoples' Publishing House, New Delhi.

16.9 ANSWERS/HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

1) Study Section 16.2 and attempt yourself.

Check Your Progress 2

1) Five major industries included in heavy industry are:

- a) coal
- b) iron and steel
- c) heavy machinery
- d) engineering industries
- e) chemicals

2) The major problems created by the heavy industry strategy of industrialisation are:

- a) inadequate development of agriculture
- b) capital intensive strategy did not enlarge employment
- c) high cost inefficient economy via public sector expansion

d) regional imbalance

Check Your Progress 3

- 1) Study Section 16.5.1 and attempt your answer.
- 2) Five main causes of industrial sickness in large and medium units are:
 - a) Government policy pertaining to production distribution and prices.
 - b) Shortage of power, transport, raw materials, etc.
 - c) Mismanagement by owners
 - d) Diversion of funds to other use
 - e) Lack of modernisation
- 3) Three major causes of industrial sickness in a small scale units are:
 - a) non-observance of basic principles of business management
 - b) under-utilisation of capacity
 - c) non-payment by the principals

UNIT 17 ROLE OF STATE IN INDUSTRIAL DEVELOPMENT

Structure

- 17.0 Objectives
- 17.1 Introduction
- 17.2 Early Conflicting Ideas
 - 17.2.1 Two Extreme Views
 - 17.2.2 The Mainstream Views
- 17.3 Premises of Industrial Policy
 - 17.3.1 Import Substitution and Controls
 - 17.3.2 Foreign Capital
- 17.4 The Industrial Policy Resolutions (IPR)
 - 17.4.1 Objectives of Industrial Policy
 - 17.4.2 Categorisation of Industries
 - 17.4.3 The IPR, 1956
 - 17.4.4 The Licensing System
- 17.5 Industrial Policy Resolution, 1956 - An Assessment
 - 17.5.1 Criteria of Assessment
 - 17.5.2 Assessment of Controls
- 17.6 Towards Liberalisation
 - 17.6.1 Industrial Licensing Policy, 1970
 - 17.6.2 Industrial Policy, 1977
 - 17.6.3 Industrial Policy, 1980
 - 17.6.4 Liberalisation Measures (1985)
- 17.7 New Industrial Policy, 1991
 - 17.7.1 Industrial Licensing
 - 17.7.2 Foreign Investment
 - 17.7.3 Foreign Technology Agreements
 - 17.7.4 Public Sector Policy
 - 17.7.5 MRTP Act
- 17.8 A Critique of the New Industrial Policy
- 17.9 Let Us Sum Up
- 17.10 Key Words
- 17.11 Some Useful Books
- 17.12 Answers or Hints to Check Your Progress

17.0 OBJECTIVES

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

- 1 Explain the type of industrial structure we inherited on the eve of Independence;
- 1 Identify the strategy adopted to industrialise the economy;
- 1 Explain the various Industrial Policy Resolutions and their priorities;
- 1 Explain the licensing policy adopted on the process of industrialising the economy;
- 1 Analyse the process of liberalisation adopted; and
- 1 Review the policy changes particularly with respect to foreign investment and foreign technology.

(Some sections of this unit have been taken from the earlier course EEC-02: Indian Economic Development Since Independence Block 7, Unit 14).

17.1 INTRODUCTION

We have already seen in Block 1 that even prior to the First World War India had

well developed cotton and jute textile industries. Further, a number of industries, notably, steel, sugar, cement, matches, vanaspati, soap and several branches of engineering were set up during the inter-war period. But this variety can, by no means, be described as adequate. In fact, the relative insignificance of the large industrial sector at the time of Independence is tellingly brought out by the fact that, in 1948-49, factory establishments accounted for only 6.5 per cent of the total working population of the country. The principal deficiency of the industrial structure was its lopsided character, based as it was mainly on the consumer goods. In terms of ownership, barring a few notable exceptions, industry was all in the private sector, largely controlled by foreign capital, the indigenous control of cotton textiles and a few others notwithstanding. Also, whatever growth had taken place cannot be said to have been inspired by a proper consideration of such factors as efficiency in the long run, but rather due to advantageous location; the size of the market; availability of raw materials, adequacy of which was, perhaps, an outcome partly of sheltered markets and exigencies of war.

We have already noted in the same block that prior to Independence the colonial government in India was not interested in developing agriculture or industry as its interests did not coincide with those of the Indian people. But, after Independence the new government got the chance to break the vicious circle of poverty, and to create conditions of industrialisation and economic growth. The question was : how to break the colonial legacy of under-development of the ideas of national planning along with the rise and fruition of the national movement. In this unit, we go into some detail as to how these ideas were implemented in terms of industrial policy, regulation and controls, etc.

17.2 EARLY CONFLICTING IDEAS

In the 1950s, there was an intense debate in the country regarding the strategy of economic development, in general and on how to break the vicious circle of poverty, in particular. Several viewpoints existed at that time.

17.2.1 Two Extreme Views

One extreme view was that of the free enterprise school, according to which all economic activities should be left to private initiative and market forces. This point of view was held by a minority of industrialists and economists.

Many people, on the contrary, believed that the main reason for India's under-development prior to Independence was that the Government of the time did not promote industrialisation and that the indigenous enterprises were left to the market forces and, therefore, could not grow. Hence, it was necessary for the Government to play an active role in economic activities so as to create conditions suitable for industrial expansion. Government intervention, they argued, was necessary for at least two reasons : (1) for creating infrastructural facilities such as roads, power, communication, etc., and (2) for creating a machine manufacturing sector to remove the lopsidedness of the industrial sector.

The reliance on the market forces was considered undesirable for other reasons too. It was argued that a process of industrialisation that would emerge in response to the market forces, would take unduly long to develop the country, as it happened in England and Western Europe. Neither the Indian industrialists nor the common people in India could wait that long leaving the process of development to the natural forces of the market for, say, a century or more. The Soviet and Japanese experience of economic development came handy to bring home that it was possible to compress the century - long process of development into a single generation of, say, 30 to 40 years, provided the state regulated and planned economic activities in

an appropriate manner. All these reasons rendered the free enterprise school a minority.

Another extreme view was to bring about a radical change in property relations, that is, to transfer all properties, rural and urban, in agriculture and industry, to the state and society and to organise production, in a pattern similar to that in a socialist country. This view was also rejected because there was not enough support for such a change.

17.2.2 The Mainstream Views

Leaving aside the extreme views, there were three viewpoints that seriously contended for supremacy. The Gandhian view favoured small scale industries and self-reliance. Nationalist industrialists preferred rapid industrialisation through large scale industries, appropriately protected from foreign competition. Nehru and like-minded social democrats preferred rapid industrialisation through capital goods industries under public sector, with supporting provisions for the small scale and cottage sector.

The divergence of viewpoints on small scale and large scale industries centred on the choice between employment and rapid growth. The Gandhians argued that small scale industries would provide more employment for labour than large scale industries. The social democrats criticised this strategy on the ground that it would keep the growth rate lower. Ultimately, the decision was taken for the industrialisation based on capital goods and leaving large enough playroom for the small scale and the cottage sectors. It was emphasised that without an adequate development of capital goods (the machine manufacturing) sector, no strategy of development was expected to go far, whether it was based on small scale or large scale industries.

Academic input to the argument was provided by P.C. Mahalanobis who showed that the overall growth rate of the economy was directly related to the proportion of the investment in the capital goods sector - the higher the ratio, the higher would be the growth rate of output and income.

Once the pattern of production was decided in favour of large scale capital goods industries, the next question was; who should do it? Whether the capital goods sector was to be developed by the Government, or by the private entrepreneurs? This question was decided taking the availability of finance into consideration. At that time, the private sector did not have the requisite technical know-how nor the financial resources to undertake the big enterprises required to manufacture metals and machines.

It was, therefore, felt that if the objective is to achieve rapid development, it was necessary that all industries of basic and strategic importance, or in the nature of public utility services, shall be in the public sector. Other industries, which are essential and require investments on a scale, which only the state, in the given circumstances, could provide, have also to be in the public sector. The development of other industries be left to the initiative and enterprise of the private sector.

The Government was, therefore, to assume the responsibility for the development of the industries over a wide area. The Government, in turn, decided to promote and regulate industrial development within a planning framework. The general approach of the Indian planning strategy has been discussed in some other unit. Here we only note that, India adopted the concept of central planning for a mixed

economy, where public and private sectors would play complementary roles in the common task of development. The strategy of industrialisation evolved, was to be operationalised as discussed in the following sections.

Check Your Progress 1

- 1) Mark 'T' for True and 'F' for False.
 - i) The pre-Independence industrial structure in India is mainly characterised by the growth of capital goods industries. ()
 - ii) The colonial government, in India, was not interested in developing agriculture or industry. ()
 - iii) The social democrats were in favour of the growth of small scale industries and self-reliance. ()
 - iv) According to Mahalanobis, "Growth rate of the economy was directly related to the proportion of the investment in the capital goods sector." ()

2) Why was Government intervention necessary to promote industrialisation? Answer in two sentences.

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3) Explain the differences between Nehruvian and Gandhian approaches to development in three sentences.

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17.3 PREMISES OF INDUSTRIAL POLICY

Investments in public sector enterprises were to be subjected to direct planning in both choice and implementation and the private sector industrial investments were to be directed by the state, by physical controls operated primarily through an exhaustive licensing system combined with a detailed setting of "targets" by the Planning Commission in the course of the formulation of the successive Five Year Plans. The system was to operate in a manner calculated to, and determine, (i) the pattern of investment down to the product level, and (ii) the choice of technology, extending to scale, expansion, location, direct import-content, and the terms of foreign collaboration in finance and know-how.

17.3.1 Import Substitution and Controls

As regards import substitution, there were two underlying factors that contributed towards this orientation of industrial policy. The first related to export pessimism, while the second and most important was on the need for protection of infant industries in the economy.

The principal argument in favour of import-substitution oriented strategy of development for India was however, the protection of infant industries in the course of development. Under this strategy, the domestic infant industries were to be protected from the competition of imports by setting up a trade regime with very high tariff rates or quota restrictions.

This strategy further stated that, in course of time, as the infant industry developed, the protection from foreign competition would be withdrawn and the industries would then compete on international markets and contribute to export earnings, which could be used for further development. This argument, it may be noted, provided a rationale for accepting a degree of short run costs in return for benefits of establishing a dynamic industrial sector, which would meet the demands of the large domestic market in the long run. It was indeed a step towards self-reliance. The important questions, however, was the issue of how far and how efficiently to push import substitution.

Reliance on physical controls was not only limited to industrial licensing and import licensing. Pricing and distribution of several manufactures and semi-manufactures were also regulated through controls. Among the motivating factors behind the direct regulation of distribution and prices were the following :

- i) The desire to ensure adequate allocation to priority sectors at reasonable prices;
- ii) equity consideration; and
- iii) to prevent inflationary effects arising out of the chain effects of price rise in basic goods with significant forward linkages.

17.3.2 Foreign Capital

Industrial strategy had also a policy statement on foreign investments and import of technology. Government's attitude towards foreign capital was governed by the policy statement made by Prime Minister Nehru in Parliament in 1949. The government recognised the need to secure the participation of foreign capital and enterprise, particularly, in respect of industrial techniques and know-how, so as to foster the pace of industrialisation of the Indian economy. The statement made it amply clear that as a rule the major interest in ownership and effective control should be in Indian hands. The policy was to encourage outright purchase of technology through one-time payment for technical know-how with fees or royalty payments rather than induction of technology channelled through foreign investments.

17.4 THE INDUSTRIAL POLICY RESOLUTIONS (IPR)

The overall objectives of industrial policy in India have been articulated in the Industrial Policy Resolutions of 1948, 1956 and 1973, and the Industrial Policy Statements of 1975, 1980, 1985-86 and 1991.

17.4.1 Objectives of Industrial Policy

These objectives can be broadly listed as follows:

- i) the development and regulation of industrial investments and production according to the plan priorities and targets;
- ii) the prevention of concentration of ownership of industries;
- iii) the protection and encouragement to 'small and cottage' industries;
- iv) limiting and controlling foreign investment in domestic industry;
- v) balanced economic development of different regions in the country so as to reduce disparities in the levels of development;
- vi) pursuing self-reliance through import-substitution oriented policies of industrial

development; and
vii) carving out a central role for the public sector in the process of development.

Thus, in order to achieve the set planned targets, the industrial investment was sought to be regulated and monopolistic tendencies were sought to be curbed to encourage indigenous artisans and local expertise, small and cottage industries were protected. Foreign investment was controlled and was put to limit so that indigenous industries can flourish. Similarly in order to reduce the levels of uneven development, another objective was to pursue the policy of balanced regional development. To attain self-reliance, the import-substitution policy was resorted to and state led development through the instrument of public sector was given the commanding role.

17.4.2 Categorisation of Industries

The main thrust of the 1948 Industrial Policy was to lay the foundation of a mixed economy in which both private and public enterprises would march hand in hand to accelerate the pace of industrial development. The industries were divided into four categories:

- i) industries, which were exclusive monopoly of the state such as : arms and ammunition, railways, atomic energy and transport.
- ii) industries like coal, steel, iron , aircraft manufacture, ship-building, manufacture of telephone, telegraph & wireless apparatus, where new investment will be undertaken by the state only.
- iii) industries of such basic importance that the central government would feel it necessary to plan and regulate them, such as salt, automobiles, machine tools, chemicals, non-ferrous metals, cement, sugar, paper etc.
- iv) the reminder of these industries were left open to private sector.

In order to pursue the goal of mixed economy, the first attempt was in the form of Industries (Development & Regulation) Act, 1951. According to this act, (i) all existing undertaking in the scheduled industries had to be registered with the government; and (ii) neither 'new' industrial undertakings could be established, nor any 'substantial extension' could be affected to existing plants, without the prior procurement of a license from the central government.

After the adoption of 1948 Industrial Policy Resolution, significant developments took place in India. Planning had proceeded on an organised basis and the First Five Year Plan started in 1951. Parliament accepted the 'socialist pattern of society' as the basic thrust of social and economic policy in 1954. These important developments necessitated a fresh statement of industrial policy. A second Industrial Policy Resolution (IPR) was, therefore, adopted in April, 1956.

17.4.3 The IPR, 1956

The IPR, 1956, classified industries into three categories, specifying the part, which the state would play in each of them. The first category consisted of industries, the future development of which, was to be the exclusive responsibility of the state. In the second category, there were industries which were to be progressively state-owned and in which, therefore, the state was generally to take the initiative in establishing new undertakings, but in which private enterprise was also expected to supplement the efforts of the state. The third category comprised all the remaining industries, further development of which, in general, was to be left to the initiative and enterprise of the private sector.

These categories were not intended to be rigid or watertight. In the industries listed

in first category, for instance, the expansion of existing privately owned units was not precluded, and the state was free to secure the cooperation of private enterprise in the establishment of new units national interest so require. But, this was subject to the provision that, while securing such cooperation, it would ensure, through majority participation in the capital of the undertaking, or otherwise, the requisite power of the state to guide the policy and control the operations of the undertaking. Second category related to what might be called the mixed sector, a sector in which the state would enter progressively and enlarge its operations, but private enterprises would, at the same time, have the opportunity to develop either on its own, or with state participation. In the rest of the field, development would ordinarily be undertaken through the initiative and enterprise of the private sector, but it would be open to the state to start any industry even in this field.

17.4.4 The Licensing System

The division of enterprises between the public and the private sectors was to be maintained through a licensing system. Any new enterprise wishing to start production of new article, or to expand capacity, was required to apply to the Government for a license. The application was to be scrutinised from the techno-economic angle by the Directorate General of Technical Development (DGTD), which would assess whether the existing capacity in that industry was adequate or not, whether it would require imports of machines, raw material or technical know-how, and whether it was in accordance with the plan priorities or not. After a rigorous scrutiny the industrial licence was to be cleared by an (inter-ministerial) licensing committee, which was set up in 1952 to operate within the framework of 1951 Industries Act.

Apart from the Industrial Licensing Committee, there were other numerous physical controls to be cleared by the prospective investor. The capital goods license had to be procured from the Capital Goods Licensing Committee, which cleared allocations of import licenses for the purpose. Furthermore, if there was foreign collaboration involved, the (inter-ministerial) Foreign Agreements Committee got into the picture and its consent to the terms of collaboration had to be secured as well.

The IPR also indicated the Government's approach to the problem of small scale industries. These industries offered some distinct advantages, particularly, providing immediate employment; they also offered a method of ensuring a more equitable distribution of the national income; and they facilitated effective and broad based mobilisation of resources of capital and skill, which might have otherwise remained unutilised. The role of the Government in this respect was to encourage small industries to modernise their methods of production and improve their organisational set-up.

17.5 INDUSTRIAL POLICY RESOLUTION, 1956 – AN ASSESSEMENT

Bhagwati and Desai (1970), were the first to examine the process of industrialisation in the light of the Industrial Policy Resolution, 1956. They brought together the scattered pieces of information available in various committee reports of the Government of India and based themselves largely on the Hazari Committee (1967) Reports on Industrial Planning and Licensing Policy, Monopolies Enquiry Commission Report (1964), Ninth Report of the Estimates Committee (1967-68) on Industrial Licensing, Mathur Study Team on DGTD (1965), and two Swaminathan Committee Reports (1964 and 1966). The agenda was to examine (i) the economic efficiency of the licensing systems from the viewpoint of industrial planning; (ii) the analytical

methods used in target setting for both private and public sectors through the five year plans and (iii) pricing and distribution controls.

17.5.1 Criteria of Assessment

The economic efficiency of the licencing systems for industrial planning was examined through:

- i) the economic criteria used in the actual choice of plants;
- ii) the information collected by DGTD used for reaching judgements on these questions;
- iii) the procedure used by the Licensing Committee in the choice of applications for fulfilling targets;
- iv) the time taken to clear applications; and
- v) the role of the licensing and regulation system in checking the concentration of industrial ownership and in promoting a competitive system.

The analysis showed that the emerging picture was indeed quite unsatisfactory. Through the entire period spanning the three plans, target setting had a weak economic basis, but was overly detailed and comprehensive. Licensing was taken too seriously at least as far as restraining capacity was concerned. The licensing procedures were found wanting in ensuring or encouraging fulfilment of targets. The follow-through was weak, the criteria of efficient choice among applicants were not properly defined. The licensing procedures were designed so as to rule out the consideration of such choices. Objectives such as balanced regional growth and prevention of concentration in ownership, although reiterated, no procedures were devised to achieve them at minimum economic cost. Indeed, in some cases, the procedures even encouraged the frustration of these very objective. Large industrial house were at substantial advantage in securing license for establishing new industries or expanding the existing capacities by peddling influence. The enormous growth of the large business groups considerably obstructed the growth of the smaller and medium entrepreneurs, thanks to the pre-emptive capacity of the large business groups.

17.5.2 Assessment of Controls

Among the major statutory provisions under which the Government operated were: (i) the Essential Commodities Act, and ii) the Industries (Development and Regulation) Act. In addition, the operation of 'informal' price control was also not uncommon. The entire period upto 1970 witnessed the operation of prices and distribution controls over several manufactures : iron, steel, non-ferrous metals, coal, fertilisers, carbons, cotton textiles, paper, sugar, motor car, scooters, commercial vehicles, ethyl alcohol, molasses, cement, drugs and medicines, kerosene and other petroleum products, bicycles, tyres and tubes, natural rubber, vanaspati, soap and matches. Not all these items were controlled at all times, nor were they all subjected to both prices and distribution controls; many were subjected merely to price control.

On a detailed review these controls were found ill-advised and Desai argued that these controls were a part of the general economic philosophy of direct intervention without careful examination of direct efficiency and of efficiency vis-a-vis alternative ways of achieving the given objectives.

The policy framework as it worked through the administrative mechanism had very disturbing economic consequences. Large industrial houses succeeded in securing a large number of licenses both for setting up new units as well as enhancing the existing capacities.

This not only created entry barriers in individual industries, which limited the possibility

of domestic competition, but also limited the possibility of regional dispersal of industries. The administrative hurdles inherent in the system of physical controls seriously limited the much needed flexibility to the licensed project, and often loaded the project in a manner that it increased the project cost as well as costs of production. The absence of foreign competition and the indiscriminate and indefinite protection granted to Indian industry worked not only against exports but also encouraged inefficiency.

Moreover, the case for preferential treatment to small scale units, which was based on the assumption that these units use less capital and generate more employment per unit of capital was also found to be ill-conceived. Studies conducted during the late sixties tested the underlying intensity as well as between size and output-capital ratio. These studies did not find conclusive association between scale and capital or labour intensity. Further, the tendency of not allowing uneconomic, non-viable units to die easily, resulted in a situation where the government continued to be saddled with curing the incurable sick units. The entrepreneurs responsible for this got away without any financial risks. Lastly, the uncertainties rooted in industrial policies and procedure tended to discourage long-term planning by entrepreneurs.

17.6 TOWARDS LIBERALISATION

Industrial policy in the seventies and more specifically from the mid-seventies departed from the rigid system of licensing and control both with regard to domestic as well as foreign enterprises. According to Bhagwati and Desai the shift of Indian economic policy in general and industrial licensing in particular, dates back to around mid-sixties - 1 June, 1966, when Indian rupee was devalued. A change in industrial policy in some direction was, however, first noticed in 1970, when based on the recommendations of the Dutt Committee Report (1969) on industrial licensing, the Monopolies and Restrictive Trade Practices Act was passed in 1969 and enforced from 1st June 1970. It sought to check the expansion of large industrial houses with gross assets exceeding rupees 20 crore in interlinked undertaking or of dominant undertaking with assets of over rupees one crore.

17.6.1 Industrial Licensing Policy, 1970

Through the Industrial Licensing Policy of 1970, the scheduled industries of IPR, 1956 were rearranged into three categories to bring them in conformity with the industrial priorities and targets of that time. A similar exercise was done in the industrial policy statement of 1973. The statement brought basic changes by dividing the entire industrial sector into six categories: such as Core Sector, Public Sector, Small and Medium Sector, Foreign Sector and Joint Sector.

Core Sector: Those basic to national economic development, those having direct linkages with the core industries, those with substantial potential for exports.

Public Sector: Such industries from this sector as listed in Schedule A of 1956 Industrial Policy Resolution were reserved for the public sector.

Dual Coverage: In the rest of such core sector large industrial houses (with not less than Rs. 20 crore of assets each) could also apply for licensed capacity.

Small and Medium Sector: Reservations were made for the small and medium sector. The intention was to forestall and resist encroachment in this sector by the large industrial houses. Cooperatives in this sector were also to be encouraged, particularly in the mass consumption goods.

Foreign Companies: Foreign concerns, their subsidiaries and Indian branches of

foreign companies, were made eligible to apply for licensed capacity.

Joint Sector: The central and state governments would themselves directly collaborate with the private sector in the promotion of an intermediate sector being called the joint sector.

The process of attracting resources from all sectors was further strengthened through Licensing Policy, 1975, where important relaxations were made. These relaxations were in the form of delicensing and unlimited expansion in 21 industries whose products were meant for exports. This permission was meant for both big industrial houses, including monopoly houses, and multi-nationals.

17.6.2 Industrial Policy, 1977

With the change in Government at the centre in 1977, the Industrial Policy of 1977 had a further review of the earlier industrial policies. It was felt that with the enforcement of earlier industrial policies, (i) unemployment had increased, (ii) rural - urban disparities had widened, (iii) industrial sickness had become a nation-wide malaise, and (iv) both real industrial growth and aggregate industrial investments were stagnating. To cover the gaps in both absolute and disguised unemployment and to correct the somewhat lopsided development of the economy, the Industrial Policy of 1977 assigned a prominent place to the revival and **growth of cottage and small scale industries**. The measures adopted for the promotion of small scale and cottage industries included (a) Reservation or demarcation for sphere of production (b) non-expansion of the capacity of large-scale industry and (c) imposition of curbs on large scale industry (d) setting up of 'District Industries Centre' (DIC) to provide services and support required by such industries. The number of items reserved for SSI were raised from 180 items to 807 items. Large scale industry was related to the programmes for meeting the basic minimum needs of the controlling pollution, and wider dispersal of small scale and village industries and strengthening of the agricultural sector was aimed at. Large and monopoly business houses were not to be allowed to enter or expand even directly into areas earmarked for cottage, small and medium sectors. Public sector was allowed to retain its stabilising as well as catalytic agent function for development of the entire industrial field. Reliance on foreign capital and energy was to be curtailed, though favours were shown to multinationals of certain countries as against the others.

The policy recognised the need for technological self-reliance and therefore continued inflow of technology in sophisticated and high priority areas where indigenous skills and technology were not adequately advanced.

The policy statement suggested a **selective approach towards sick units**. It mentioned: while the government cannot ignore the necessity of protecting the existing employment, the cost of maintaining such employment has to be taken into account. In many cases very large amount of funds have been pumped into the sick units, which have been taken over by the government. But they continue to make losses, which have to be financed by the public exchequer. This cannot continue indefinitely.

Since the Government at the centre lasted only a few years, not much headway could be made and the process of domestic liberalisation initiated in the mid-seventies was continued further with the change in the government at the centre in 1980.

17.6.3 Industrial Policy, 1980

Industrial policy statement of July 1980, which is based on the Industrial Policy Resolution of 1956. This policy statement spelled out that in order to eliminate the

artificial distinction of conflicting interest between small and large scale industry, the concept of economic federalism would be promoted through the setting up of a few nucleus plants in identified industrially backward districts. It was decided that these nucleus plants would concentrate on assembling the products of ancillary units falling within its orbit. The nucleus plants would also work for upgrading the technology of small units. The government would promote the development of a system of linkages between nucleus large plants and the satellite ancillaries.

To boost the development of small scale industries, the investment limit in the case of small scale and tiny units were enhanced. A scheme for building buffer stocks of essential raw materials for the small scale industries was introduced for operation through the Small Industries Development Corporation (SIDC) in the states and National Small Industries Corporation (NSIC) at the Centre.

In order to ensure fullest utilisation of existing industrial capacities, particularly in the core industries and in industries with a long export potential, the facility of automatic expansion of capacity was envisaged. Requests for setting up 100% export oriented units and for expansion of existing units for purposes of export would also be considered sympathetically.

17.6.4 Liberalisation Measures, 1985

The report of the committee to examine principles of a possible shift **from physical to financial controls in early 1985** played an important part in intensifying the pace of reform. A number of policy initiatives were taken in this direction which include :

- i) delicensing a number of industries ;
- ii) broad-banding of certain industries with a view to providing flexibility to manufacturing in order to produce a range of products;
- iii) expanding the role of large houses by broadening the list of industries open to them ;
- iv) raising the asset threshold to Rs. 100 crore for MRTP houses, thereby enabling a large number of companies to operate without the restrictions of the MRTP Act;
- v) raising investment limits for the small scale sector and providing fiscal incentive for the promotion of the small scale sector;
- vi) No license required for increasing capacity upto 49 per cent over licensed capacity for purposes of modernisation/renovation/replacement;
- vii) announcing national policies relating to specific industries such as textiles, sugar, electronics and computers;
- viii) making it easier to import foreign technology for purpose of modernization and up gradation of quality; and
- ix) encouraging existing industrial undertakings in certain industries to achieve minimum economic levels of operations.

On June 3, 1988 further liberalisation in industrial licensing was announced, under which non-MRTP and non-FERA companies will not be required to obtain licenses. The government established 100 growth centres throughout the country for the development of backward areas. The incentives in terms of income tax relief were given to industries in backward areas.

Check Your Progress 2

1) Fill in the blanks.

- i) The main thrust of the 1948 Industrial Policy Resolution was to lay the foun-

.....economy.
(socialist, mixed)

- ii) Industrial Policy Resolution, 1977 strengthened the role of
(small scale sector, large houses).
- iii) Industrial Policy Resolution has given some weightage to small scale industries. (1948, 1956)

2) Name the various types of controls that Government exercised over the manufacturers. Answer in one sentence.

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3) What policy initiatives were taken during 1985 towards liberalisation ? Give any three.

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17.7 NEW INDUSTRIAL POLICY, 1991

The new economic policy announced by the Government in July 1991 set the pace of deregulation of the economy in a substantial manner. The major objectives of the new economic policy were : (i) to build on the gains already made, (ii) correct the distortions or weaknesses that may have crept in, (iii) maintain a sustained growth in productivity and gainful employment, and (iv) attain international competitiveness. The pursuit of these objectives was tempered by the need to preserve the environment and ensure the efficient use of available resources.

In pursuit of the above objectives, government decided to take a series of initiatives in respect of the policies relating to the following areas:

- i) Industrial Licensing
- ii) Foreign Investment
- iii) Foreign Technology Agreements
- iv) Public Sector Policy
- v) MRTP Act

17.7.1 Industrial Licensing Policy

Industrial licensing was abolished for all industries, except 18 specified industries, irrespective of levels of investment. These specified industries, related to those such as security and strategic concerns, social reasons, problems related to safety and over-riding environmental issues, manufacture of products of hazardous nature and articles of elitist consumption. The exemption from licensing were viewed as helpful to many dynamic small and medium entrepreneurs who have been unnecessarily hampered by the licensing system. On August. 14, 1993, the cabinet committee on Economic affairs decided to remove three more items from the list of 18 industries reserved for compulsory licensing. These three items are motor cars, white goods (such as, refrigerators, washing machines, air conditioners) and raw hides and skins and patent leather. In 1997-98 the number of industries subject to compulsory industrial licensing got reduced from 14 to 9. Further, licensing procedure for sugar were liberalised bringing down the total number to eight. These industries are coal, petroleum, alcoholic drinks, tobacco, defence, explosives, hazardous chemicals, and drugs and pharmaceuticals.

In locations other than cities of more than 1 million population, there will be no requirement of obtaining industrial approvals from the Central Government except for industries subject to compulsory licensing. In respect of cities with population greater than 1 million, industries other than those of a non-polluting nature such as electronics, computer software and printing will be located outside 25 kms. of the periphery, except in prior designated industrial areas. The system of phased manufacturing programmes run on an administrative case by case basis will not be applicable to new projects. Existing projects with such programmes will continue to be governed by them. Existing units will be provided a new broad-banding facility to enable them to produce any article without additional investment. The exemption from licensing will apply to all substantial expansions of existing units. The mandatory convertibility clause will no longer be applicable for term loans from the financial institutions for new projects.

17.7.2 Foreign Investment

Regarding foreign investment, the main points were: (i) Approval will be given for direct foreign investment upto 51 percent foreign equity in high priority industries; (ii) To provide access to international markets, majority foreign equity holding upto 51 per cent equity will be allowed for trading companies primarily engaged in export activities; (iii) A special empowered board will be constituted to negotiate with a number of large international firms and approve direct foreign investment in select areas.

17.7.3 Foreign Technology Agreements

Regarding foreign technology agreement, it was decided that automatic permission will be given for foreign technology agreements in high priority industries upto a lump sum payment of Rs.1 crore . In respect of industries other than those covered under earlier point, automatic permission will be given subject to the same guidelines as above if no free foreign exchange is required for any payment. All other proposals will need specific approval under the general procedures in force. Similarly, no permission will be necessary for hiring of foreign technicians, foreign testing of indigenously developed technologies.

17.7.4 Public Sector Policy

You can recall that the industrial policy resolution of 1956 gave the **public sector** a strategic role in the economy. Massive investments have been made over the past four decades to build a public sector, which has a commanding role in the economy. After the initial exuberance of the public sector entering new areas of industrial technical competence, a number of problems have begun to manifest themselves in many of the public enterprises, such as insufficient growth in productivity, poor project management, over-staffing, lack of continuous technological up-gradation, and inadequate attention to R&D and human resource development. The result is that many of the public enterprises have become a burden rather than being an asset to the government. The original concept of the public sector has also undergone considerable dilution. Keeping these in view the government adopted a new approach to public enterprises. The priority areas for growth of public enterprises in future will be the following:

- 1 Essential infrastructure goods and services
- 1 Exploration and exploitation of oil and mineral resources
- 1 Technology development and building of manufacturing capabilities in areas which are crucial in the long term development of the economy and where private sector investment is inadequate

- 1 Manufacture of products where strategic considerations predominate such as defence equipment

At the same time the public sector will not be barred from entering areas not specifically reserved for it. In addition, the government will review the existing portfolio of public investment with greater realism. This review will be in respect of industries based on low technology, small scale and non-strategic areas, inefficient and unproductive areas, areas with low or nil social considerations or public purpose, and areas where the private sector has developed sufficient expertise and resources. Sick units, which are unlikely to be turned around will, for the formulation of revival/rehabilitation schemes, be referred to the Board for Industrial and Financial Reconstruction (BIFR), or other similar high level institutions created for the purpose. Social security mechanism will be created to protect the interests of workers likely to be affected by such rehabilitation packages. Similarly, in order to raise resources and encourage wider public participation, a part of the government's shareholding in the public sector would be offered to mutual funds, financial institutions, general public workers.

The emphasis was more on performance improvement through the Memoranda of Understanding (MOU) system through which managements would be granted greater autonomy and will be held accountable. However, to facilitate a fuller discussion on performance, the MOU signed between government and the public enterprise would be placed in parliament. While focussing on major management issues, this would also help placed matters on day to day operations of public enterprises in their correct perspective. The proposed list of industries to be reserved for the public sector was reduced to eight items of strategic importance such as arms and ammunition, atomic energy, coal and lignite, mineral oils and railway transport.

16.7.5 MRTPACT

As far as Monopolies and Restrictive Trade Practices (MRTP) Act, is concerned, MRTP companies will no longer be required. Instead, emphasis will be on controlling and regulating monopolistic, restrictive and unfair trade practices rather than making it necessary for the monopoly houses to obtain prior approval of central government for expansion, establishment of new undertakings, merger, amalgamation and takeover and appointment of certain directors. The thrust of policy was more on controlling unfair or restrictive business practices. The MRTP Act was restructured by eliminating the legal requirement for prior governmental approval for expansion of present undertakings and establishment of new undertakings. The provisions relating to merger, amalgamation, and takeover were also repealed. Similarly, the provisions regarding restrictions on acquisition and transfer of shares was appropriately incorporated in the companies act.

Simultaneously, provisions of the MRTP Act was strengthened in order to enable the MRTP commission to take appropriate action in respect of monopolistic, restrictive and unfair trade practices. The newly empowered MRTP commission was encouraged to undertake investigation *suo moto* or on complaints received from individual consumers or classes of consumers.

17.8 A CRITIQUE OF THE NEW INDUSTRIAL POLICY

The New Economic Policy announced by Government of India on 24th July 1991 fulfills a long felt demand of the industry for declaring in very clear terms that the licensing has been abolished for all industries except 18 industries which include coal, petroleum, sugar, motor cars, cigarettes hazardous chemicals,

pharmaceuticals and some luxury items. Besides this, the industrial policy proposes to remove the limit of assets fixed for MRTP Companies and dominant undertakings. Thus, business houses intending to float new companies or undertake substantial expansion will not be required to seek clearance from the MRTP Commission. Numerous cases of bottlenecks created by the bureaucracy are removed by this singular decision of the Government. In this sense, the industrial policy should be welcomed because it has taken the bold decision to end the license-permit raj and save the entrepreneurs the harassment of seeking permission from the bureaucracy of the country in order to set-up an undertaking. The Government thought it wise, not to keep the myth of MRTP limit since the MRTP Commission had become irrelevant in view of the changed thinking of the Government. This step shall enable MRTP companies to establish new undertaking and effect plans of expansion, mergers, amalgamations and takeovers without prior government approval. They shall have the right to appointment of directors. In other words, the new industrial policy has unshackled many of the provisions, which acted as brakes on the growth of the large private corporate sector. All these provisions have been welcomed by the business circles. There is an overall relief in the dismantling of industrial licensing and regime of controls.

However, there are several other areas, which have come in for sharp criticism.

First, the new industrial policy goes all out to woo foreign capital. It has been decided to provide automatic approval for direct foreign investment upto 51% foreign equity in high priority industries. The Government has further clarified that it will permit 100% foreign equity in case the entire output is exported. All this is being done in the belief that direct foreign investment is crucial to India's economic development. The idea of free flow of foreign capital is being sold with the understanding that it will provide the much-needed foreign exchange and secondly, that it will lead to injecting a heavy doze of investment in the high priority industries. However, in our over-enthusiasm to welcome foreign capital, the fear is that we may sell our sovereignty to multinationals.

Critics, however, base their judgement on past experience. Once foreign capital is permitted free entry, the distinction between high priority and low priority industries will gradually disappear and production will be opened to facilitate foreign investment. Thus, the Government, however, should be very careful about the hidden implications of reverse outflow of foreign exchange in the coming years. With foreign debt burden already becoming heavy, prudence demands that utmost care be taken in inviting foreign capital, which should be limited to priority industries only.

The industrial policy (1991) also takes note of the low rate of return on capital invested. The result is that many of the public sector enterprises have become a burden rather than an assets to the Government. The most striking example given in the policy statement is **take-over of sick units by the government**. It further adds that this category of public sector units accounts for almost one-third of the total losses of central public enterprises.

This being so the Government should concentrate on improving the performance of the redeemable and surplus generating public sector enterprises. The Government intends to strengthen the public sector through the instrument of Memorandum of Understanding. It also intends to introduce competition in these areas by private sector participation. The government also intends to disinvest public sector equity in favour of financial institutions or even employees.

Check Your Progress 3

1) What were the main areas into which policy initiatives were taken during 1991 industrial policy statement ?

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Answer in one sentence.

2) Tick (✓) for true and (×) for false :

- i) Under the new Industrial policy foreign technicians cannot be hired.
- ii) The aim of the new industrial policy is to increase competition and efficiency of Indian industry.
- iii) Traditionally foreign investment policy has encouraged the foreign equity holdings in services except hotels.
- iv) After 1993, the number of industries reserved for compulsory licensing is 18.

3) Critically evaluate the new industrial policy .

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17.9 LET US SUM UP

After going through this unit, we learnt that liberalization has been a continuous process in India. On the eve of Independence India inherited an industrial structure based mainly on consumer goods industries. There was lack of infrastructure as well as sufficient saving and investment. The government of independent India got the chance to break the bottlenecks and to create the conditions of industrialisation and economic growth. But, what should be the strategy of economic development? This question led to intense debate in the country. While Gandhi favoured small scale industries and self reliance, Nehru and like minded social democrats preferred rapid industrialisation through capital goods industries. The government, in turn decided to promote and regulate industrial development within the framework of planning. The strategy was operationalised through various Industrial Policy Resolutions (IPRs).

The first IPR was declared in 1948, followed by IPRs of 1956, 1973, 1975, 1980 and 1991. In all these policy resolutions, the concept of mixed economy was adopted, where public and private sector were assigned complementary roles in the common task of development. The division of enterprises between the public and private sectors was to be maintained through a licensing system.

The industrial policies adopted in the seventies provided some relaxations in the rigid system of licensing and control. In 1977, with the change in the government at the centre, the industrial policies were reviewed and cottage and small scale industries were given prominent role. Later, there was a shift from physical to financial controls and more liberalisation was allowed.

The new industrial policy adopted in 1991, brought with itself deregulation of the economy in a substantial manner. Not only domestic regulatory reforms but also

more dynamic relationships with foreign investors and suppliers of technology were adopted. Among the domestic deregulatory measures were reduction in the areas reserved for public sector, abolition of industrial licensing, abolition of phased manufacturing programs, amendment in the MRTP Act and so on. Thus, reform process since 1991 has changed the role of the state from principal investor to that of facilitator of entrepreneurship giving way to privatisation and liberalisation.

17.10 KEY WORDS

Core Sector: Industries basic to national economic development and include coal and lignite, crude oil, petroleum and natural gas, power, fertilisers, petro-chemicals, etc.

Physical Controls: Any new enterprise, wishing to start production of any new article is required to apply for licenses and permits for capacity, credit, imports, location, etc. which have to go through various stages. This control is called physical control.

Import-Substitutions: In order to reduce the dependence on imports, import-substitution is advocated. It means producing similar/close substitutes of imported articles at home.

17.11 SOME USEFUL BOOKS

Ahluwalia, I.J. (1985) *Industrial Growth in India*, Oxford University Press (Ch. 6 & 8)

Bhagwati, J.N. and Desai, P. (1970) *India : Planning for Industrialisation*, Oxford University Press (Chs. 12-16)

Bhagwati, J.N. and Srinivasan, T.N. (1975) *Foreign Trade Regime and Economic Development in India*, Columbia University Press.

Chaudhary, P. (1979) *The Indian Economy : Poverty and Development*, Vikas Publishing House, New Delhi (Ch.6)

Chellaswami, T., "Policy Relating to Small Scale Sector" in Mongia, J.N. (ed.) (1980), *India's Economic Policies, 1947-77*, Allied Publishers, New Delhi

Dutt R. and Sundhram, K. P.M. (1994) *Indian Economy*, S. Chand and Company, New Delhi (Ch.10).

Rangnekar, D.K., "Industrial Policy" in Mongia J.N. (ed.) (1980) *India's Economic Policies, 1947-77*, Allied Publishers, New Delhi

Tandon BB & Tondon (1997), *Indian Economy*, Tata McGraw Hill, New Delhi. (Ch.18)

Govt. of India, *Economic Survey*, 1997.

Government of India, *Statement of Industrial Policy*, July, 24, 1991, Ministry of Industry, New Delhi.

17.12 ANSWERS OR HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) (i) F, (ii) T, (iii) F, (iv) T
- 2) Read Section 17.2
- 3) Read Sub-section 17.2.2

Check Your Progress 2

- 1) (i) Socialist, (ii) Large houses, (iii) 1956
- 2) Read Sub-section 17.5.2
- 3) Read Sub-section 17.5.2

Check Your Progress 3

- 1) Read Section 17.7
- 2) (i) F, (ii) T, (iii) F, (iv) F
- 3) Read Section 17.8

UNIT 18 SMALL SCALE SECTOR

Structure

- 18.0 Objectives
- 18.1 Introduction
- 18.2 Definition of Small Scale Enterprises
- 18.3 Rationale for Small Scale Enterprises
- 18.4 Growth of Small Scale Enterprises in Indian Economy
- 18.5 State Policy to Remove Disabilities of the Small Scale Sector
- 18.6 Small Scale Sector Industrial Policy (1991)
- 18.7 Village and Small Industries in the Eighth Plan
- 18.8 Conflict Between Government Pronouncements and Actual Policy Implementation
- 18.9 Let Us Sum Up
- 18.10 Key Words
- 18.11 Some Useful Books
- 18.12 Answers/ Hints to Check Your Progress Exercises

18.0 OBJECTIVES

On going through the unit, you will be able to:

- 1 Define Small Scale Enterprises;
- 1 Explain the reasons for promoting Small Scale Enterprises;
- 1 Examine the contribution of small enterprises towards production, employment and exports;
- 1 Identify the disabilities of the small sector;
- 1 Explain the Small Sector Industrial Policy (1991) in India;
- 1 Obtain a picture of the targets and achievements set out in the Eighth Plan; and
- 1 Also comprehend the gap between government pronouncements and actual implementation of the small sector policy.

18.1 INTRODUCTION

Small Scale industries (SSIs) in India have a major role to play. They contribute substantially towards production, employment generation and exports. Moreover, they help in fulfillment of the objective of balanced regional development. Thus, the government has recognized the small-scale industries as a separate category and has taken measures for their growth. Several concessions in terms to tax exemptions, lower interest as loans, subsidies on output, etc. are given to these units. Certain categories of industries are reserved for these units.

In this Unit we will discuss the nature of growth as well as problems encountered by SSIs.

18.2 DEFINITION OF SMALL SCALE ENTERPRISES

The definition of Small Scale Enterprises has been changing with the passage of time. During the earlier phase of the post-independent period, all enterprises which had capital investment of less than Rs.5 lakh were grouped as small Scale Enterprises. But along with it, the government grouped small undertakings under two categories – (a) those using power but employing less than 50 persons; and (b) those not using power but employing less than 100 persons. Later in 1966, the employment criterion was dropped and small enterprises were defined on the basis of investment limit only. In 1966 this unit was set at Rs.7.5 lakh for small-scale industries and Rs.10 lakh

for industrial ancillaries. Industrial ancillaries are those, whose output is used as an input in other industries.

The investment limit for small-scale industries has been raised from time to time. This is because of two reasons: (a) due to inflation, cost of machinery and other equipment has gone up. This requires higher investment than before; (ii) there has been innovation in the production structure. Technological progress has allowed production of the same commodity by a new process or production of altogether new commodities.

In 1975, the limit was revised to Rs.10 lakh for small-scale enterprises and Rs.15 lakh for ancillaries. A new category, Tiny Sector was introduced with an investment limit of less than Rs.1 lakh. In 1980, this limit was further raised to Rs.20 lakh in the case of small-scale units and Rs. 25 lakh in the case of ancillary units. For tiny units the limit was raised to Rs.2 lakh.

In 1985, the government again revised the investment limit of Small Scale Enterprises to Rs.35 lakh and for ancillary units to Rs.45 lakh. The investment limit for tiny sector was, however, retained at Rs.2 lakh.

In 1990, the investment limit for small enterprises in plant and machinery was raised to Rs.60 lakh and for ancillaries to Rs.75 lakh. The ancillary unit was, however, defined as one which sells not less than 50% of its manufactures to one or more industrial units. The definition of tiny unit was revised to an investment limit upto Rs.5 lakh.

During 1997, on the recommendation of Abid Hussain Committee, the government has raised the investment limit of small-scale units and ancillary units from Rs.60/75 lakh to Rs.3 crore and that for tiny units from 5 lakh to 25 lakh.

Table 18.1 : Definition of Small Scale Enterprises, Ancillary and Tiny Units on the basis of fixed capital investment in plant and machinery

Year	Tiny Units Less than	Small Scale Enterprises Less than	Ancillaries Less than
Upto 1950	—	Rs.5 lakh	—
1966	—	Rs. 7.5 lakh	Rs.10 lakh
1975	Rs.1 lakh	Rs.10 lakh	Rs.15 lakh
1980	Rs.2 lakh	Rs.20 lakh	Rs.35 lakh
1985	Rs.2 lakh	Rs.35 lakh	Rs.45 lakh
1990	Rs.5 lakh	Rs.60 lakh	Rs. 75 lakh
1997	Rs.25 lakh	Rs.3 crore	Rs. 3 crore

Source: Various industrial policy statements and notifications of the government.

The government has been increasing the investment limit of tiny, small-scale and ancillary units from time to time so as to accommodate the rise in prices during the period. The government was also guided by the considerations of facilitating the growth of the small-scale sector with a view to enlarge employment as well as exports. However, the increase by 5 times recommended by the Abid Hussain Committee in 1997 as against that in 1990 is unusual. The rationale given by the Committee is to promote the easy entry of new entrepreneurs into the tiny sector and provide all help to the successful enterprises to grow and prosper till they reach

the investment limit of Rs.3 crore. They would not need any promotional assistance after crossing the limit of Rs.3 crore.

Classification into Traditional and Modern Small Industries

Small Scale Industries (SSIs) are classified into traditional and modern units. Among the traditional small industries are included khadi and handloom, village industries, handicrafts, sericulture, etc. Traditional SSI units were also referred to as cottage industries. The main characteristic of these units is that they do not provide full-time employment. Rather, they provide part-time employment and thus add supplementary income to agricultural labourers and artisans.

As against these, modern industries produce a large variety of goods, from simple items (e.g., electric switches, electric heaters, electric presses, modern toys, mechanical tools and instruments etc.) to more sophisticated goods (e.g., television sets, engineering goods, electronic equipment, parts of computers, etc.). The modern small industries produce high value added products. Their total output was of the order of Rs. 2,53,343 crore in 1996-97, but the output of the traditional sector was only Rs. 41,432 crore. Thus, the share of the modern SSIs in the total output of Rs.2, 94,775 crore was 86 per cent and that of the traditional sector was only 14 per cent. This may, however, be contrasted with figures of employment generation. The traditional industries provided employment to 264 lakh persons compared to 179 lakh persons by SSIs. The share of modern SSIs in total employment of 443 lakh was 40 per cent and that of traditional industries was 60 per cent. From this it follows that output per worker in modern sector was of the order of Rs.1, 41,532 while that of the traditional worker was only Rs.15, 694. This implies that labour productivity per worker was 9 times in the modern sector as against the traditional SSI sector. Better technology and manufacture of high value products explain the high labour productivity of the modern small sector.

Check Your Progress 1

1) How do you define a small enterprise?

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2) Define an ancillary unit.

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18.3 RATIONALE FOR SMALL SCALE ENTERPRISES

Some economists are against the protection of small-scale enterprises, while others strongly defend the continuance and growth of small units. The Industrial Policy Resolution of 1956 put forth four arguments in favour of small enterprises:

“They provide immediate large-scale employment, they offer a method of ensuring

equitable distribution of national income and they facilitate and effect mobilisation of resources of capital and skill which might otherwise remain unutilised. Some of the problems that unplanned urbanisation tends to create will be avoided by the establishment of small-scale centres of production all over the country”.

The four arguments put forth in the Industrial Policy Resolution are detailed below:

1) **The Employment Argument**

The most important single argument in favour of SSIs is that they create large volume of employment with relatively much less capital. In this sense, the SSIs are labour intensive compared to large industries, particularly heavy industries and infrastructure. Secondly, SSIs have shorter gestation period. They require much longer time for their establishment. Therefore, the advocates of small scale and cottage industries argue that these industries are capable of providing employment to a much greater number of persons. Data provided by the Annual Survey of Industries (1985-86) reveal that whereas in large units, productive capital employed per employee was Rs.1, 67,680, in the small-scale units it was only Rs.29, 800. In other words, with the same amount of capital, 5.6 times employment is generated in the small-scale enterprises as against large enterprises. In a capital-scarce and labour-surplus economy like India, small-scale industries are therefore, necessary to provide employment for the large labour force.

2) **The Equality Argument**

Large-scale enterprises tend to concentrate income in the hands of a few capitalists, who get huge profits from them. Small and cottage industries, on the other hand, tend to distribute income more widely among a large number of small owners and workers. Thus, small enterprises tend to reduce inequality and promote economic justice. Moreover, by distributing income among a large number of owners located in rural and semi-urban areas, small enterprises promote a more equitable distribution of the gains from industry. Thus, they promote greater equality.

3) **The Decentralisation Argument**

Small enterprises require small amounts of capital and simple machines, tools and implements. These industries can be easily spread over a large area. On the other hand, large industries are generally located in large towns and big cities. Such concentration of large enterprises in a few urban centres creates problems of overcrowding in cities, which in turn leads to pollution growth of slums and associated health hazards. By decentralising production with the help of small industries, most of these problems are taken care of. Instead of men and women shifting from rural and semi-urban areas, industry can be shifted to rural areas. Decentralisation, therefore, is beneficial because it has a much greater spread effect.

4) **Latent Resources Argument**

Small scale and cottage industries help in mobilising talent and unutilised resources lying idle in rural and semi-urban areas in several ways. Firstly, a large number of small entrepreneurs who do not have very large amount of capital to set up large enterprises can use their talent and limited resources to set up small units. Secondly, a good number of industrial units can be located near the places of raw material availability. Small units can make use of local raw materials and local talent. Thirdly, dispersal of industry with the help of small units would make it possible to mobilise idle savings, thinly spread throughout the country in profitable channels of production.

Some economists oppose the employment argument by saying that employment

should not be created for the sake of employment. The more important problem is how to make the best use of scarce resources. In other words, the employment argument is in fact the 'output argument'. In large factories working in two or three shifts is common, it is not so in case of small enterprises. Thus, though apparently small enterprises appear to use less capital per unit of labour, but in reality, the most capital-intensive type of manufacturing establishments is the small factory using modern machines and employing upto 50 workers.

Table 18. 2: Productive Capital, Employment and Value Added in Industries (1993-94)

Gross Value of Plant and Machinery	Productive Capita per Employee(K/L) (Rs.)	Value added per unit of Employment (O/L)	Value added per unit of Capital (O/K)
Tiny Units (upto Rs.5 lakh)	33,945	32,677	0.96
Small Scale Units (Upto Rs.50 lakh)	65,409	44,861	0.68
Large Units (Rs.50 lakh & above)	5,27,296	1,36,038	0.26

Source: Computed from Annual Survey of Industries (1993-94).

There is no doubt that with an increasing trend of modernisation, capital-labour ratio of small-scale enterprises is rising at a much higher rate. Similarly, there is acceleration in capital intensity of large enterprises.

Data provided by the Annual Survey of Industries (1993-94) (see Table 18.2) reveal that productive capital per employee (K/L) is 8.1 times higher in large units than in the small units. Moreover, the value added per unit of capital (O/K) is higher in small units. On the other hand, value added per unit of employment (O/L) is 3.03 times in large units than in small units, which could be because of higher capital per labour. These results support the case of small units both from the point of view of employment and output considerations of a capital-scarce economy trying to reconcile the objectives of employment and output.

18.4 GROWTH OF SMALL SCALE ENTERPRISES IN THE INDIAN ECONOMY

The government has been promoting the growth of small-scale sector in the Indian economy. Various methods are used for the purpose. First, a number of items are reserved for the small-scale sector. As against 177 items reserved in 1972, the number of reserved items was increased to 837 by 1983. The small-scale sector is engaged in the production of nearly 7,500 items.

Second, the government provided cheap credit for SSI units. The rate of interest charged is usually lower than that for large industries. Third, it opened a network of marketing centres under the Khadi and Village Industries Board. Fourth, programmes for training of workers engaged in the small sector have been undertaken. As a result of the efforts of the State, the small-scale sector has shown a tremendous growth in the Indian economy.

The total number of small-scale units, which were 4.2 lakh in 1973-74, increased

to 27.24 lakh in 1995-96. Simultaneously, there has been a tremendous growth of employment from about 4 million in 1973-74 to 12.5 million in 1990-91 and further to 15.3 million by 1995-96.

Production in the small-scale sector increased from Rs.7, 200 crore in 1973-74 to Rs.1, 55,340 crore in 1990-91 and then shot up to Rs.3, 56,213 crore in 1995-96.

Table 18.3: Production, Employment and Exports in the Small Scale Sector

	Production (Rs. Crore) (at current price)	Employment (in lakh persons)	Exports (Rs. Crore)
1973-74	7,200	39.7	393
1980-81	28,060	71.0	1,643
1990-91	1,55,340	125.3	9,100
1995-96	3,56,213	152.61	36,470
Compound rates of growth			
1973-74 to 1980-81	21.4	8.7	22.6
1980-81 to 1990-91	18.6	5.8	18.6
1990-91 to 1995-96	18.0	4.0	14.9

Source: Handbook of Industrial Statistics (1987) and Report on Currency and Finance (1995-96)

The rate of growth of production between 1980-81 and 1990-91 was 18.6 per cent per annum. During the next 5 years (1990-91 to 1995-96), it was around 18 per cent per annum. This is very creditable record and as a consequence, the small-scale sector is described as a dynamic sector of the economy.

In terms of employment, the growth rate during 1980-81 to 1990-91 was 5.8 per cent per annum and during the next 5 year (1990-91 to 1995-96), it was around 4 per cent per annum. This is much higher than the growth rate in the large-scale industrial sector as also the overall growth rate of employment in the economy.

Exports : The small scale sector has made rapid progress in boosting up exports from Rs.1,643 crore in 1980-81 to Rs.9,100 crore in 1990-91 and then shooting up to Rs.36,470 crore in 1995-96. As a percentage of total exports, the small-scale sector accounts for nearly 34 per cent of exports in 1995-96, whereas its share in 1990-91 was only 28 per cent in 1973-74, it was merely 15.6 per cent. Among the items, which have shown remarkable growth in exports, are ready-made garments, canned and processed fish, leather products, hosiery, marine products, food products, etc. Being a major contributor to exports, SSI sector deserves greater encouragement so that it continues to earn the much-needed foreign exchange.

18.5 STATE POLICY TO REMOVE DISABILITIES OF THE SMALL SECTOR

The major problem with the small sector is competition from the large sector and comparatively higher costs of production. The government has been providing assistance in the allocation of raw materials and imported components and equipment. Secondly, lack of cheap credit and non-availability of credit has been another major problem. Thirdly, low level of technical skill and managerial abilities of the small

entrepreneurs has been another weakness of this sector. Fourthly, marketing of small sector products, standardisation of their quality, improvement in design and advertisement have been some other weaknesses. It would be desirable to review the measures taken by the state in these areas:

Measures to remove disabilities

- i) **Allocation of Raw Material and Imported Components and Equipment** - Following the recommendations of the Second International Team, the government has been treating the SSI sector as a priority sector in the allocation of raw materials as well as imported equipment. For this purpose, the government established the Small Industries Development Corporation (SIDC). However, there is dissatisfaction with the effectiveness of state policy. The seventh plan recognised this fact and stated that though in theory, the small sector enjoyed a 'priority status', in practice it was merely treated as a 'residuary sector' in raw material allocation. With the economic reforms being initiated in 1991, the government has been over-emphasising the corporate sector and neglecting the SSI sector. This policy needs to be changed in the interests of enlarging employment and production via the small-scale sector.
- ii) **Assistance in the form of Credit** – One of the major problems of the small-scale units is lack of adequate credit availability. It may also be noted that sometimes, credit is available at a very high rate of interest. As a result, the small-scale sector cannot enlarge its production or meet production targets for the orders available. For this purpose, the government, more especially after bank nationalisation in 1969, made the small scale sector the priority sector in industry. Its share in total loans available to industry was 6.6 per cent in 1967. By 1994, the share of small industries was Rs.22,620 crore, out of the total loans, Rs.80,492 crore available to industry– i.e., 28 per cent of total. This is a significant improvement, but still the needs of the small-scale sector are not fully met. There is a need to evolve different criteria of credit-worthiness for the small sector. Instead of insisting on priority or assets as security, it would be more fruitful to consider the capacity of the unit to earn profits as the basis for granting credit. Moreover, the rate of interest should be reasonable so that the cost of borrowing does not become very high and the units can earn reasonable profit.
- iii) **Technical Assistance**- A large number of small units suffer from low level of technology and shortage of trained technical persons. It is, therefore, essential that the state should help to improve the technology of these units so that they can compete in the market effectively and can also manufacture in new product lines, which are now acceptable.

The government has set up two organisations for providing technical assistance to small units. First, the Central Small-Scale Industries Organisation (CSIO), through the medium of Service Institute and Extension Centres, provides advice to small entrepreneurs on technical problems. Secondly, technical assistance is provided by common facility workshops. The charges for attending these workshops from small firms are very low. Yet it has been found that these facilities are not fully utilised.

- iv) **Marketing Assistance** – A major disability of the small-scale units is that their products being non-standardised differ in quality. This puts them at a disadvantage because large firms by using brand names and highly pressurised advertisement are able to capture the market. However, in some cases, the originality of design does help small units to meet the tastes of fashionable consumers. This is

specially true in garments. But for a large variety of products, such as electric and electronic equipment, watches, footwear, etc., standardisation is essential. The government along with the Khadi and Village Industries Commission (KVIC) can help in this direction. Moreover, marketing being a specialised function should be taken over by certain government and non-government organisations. The Khadi and Village Industries Board has created a network of over 22,000 outlets for this purpose throughout the country.

Besides, the government can give preference to small-scale units in its purchases. The National Small Industries Corporation (NISC) helps small firms to secure a share from the government and defence purchases to the extent of 15 per cent. All these efforts have helped to improve the marketing of products manufactured by small firms.

Over the last four decades, the government has been promoting the growth of small enterprises by various measures given above. All these have helped to give encouragement to small enterprises, yet much still remains to be done on the question of credit so that the dependence of small entrepreneurs on private sources who charge high rate of interest can be reduced.

Check Your Progress 2

- 1) List the types of government assistance provided to small-scale industries.

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- 2) Name three major organisations, which help small-scale enterprises.

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18.6 SMALL SCALE SECTOR INDUSTRIAL POLICY (1991)

A few months after the announcement of the Industrial Policy of 1991, the government also announced the Small Sector Industrial Policy. It noted that at the end of the Seventh Plan, the small sector accounted for nearly 35 per cent of the gross value of output in the manufacturing sector and over 40 per cent of the exports from the country. It also provided employment opportunities to around 12 million persons. The primary objective of the Small Sector Industrial Policy would be to impart more vitality and growth-impetus to the sector to enable it to contribute fully to the economy, particularly in terms of growth of output, employment and exports.

Raising the Ceiling for Small-Enterprises

The Industrial policy noted that the government has raised the investment limit in plant and machinery of small-scale industries, ancillaries and export-oriented units to Rs.60 lakh, Rs.75 lakh and Rs.75 lakh and Rs.75 lakh respectively. For the tiny

enterprises, investment limit has been increased from Rs.2 lakh to Rs.5 lakh. (This was the limit as per 1991 policy. This has been raised to Rs.3 crore and Rs.25 lakh respectively in 1997.)

A new feature of the small sector policy is that all industry-related service and business enterprises would be recognised as small-scale industries and their investment ceilings would be the same as prescribed for the tiny sector enterprises.

Financial Support Measures

For making credit available, the government stated that emphasis would henceforth shift from subsidised/cheap credit (except for specified target groups), to availability of adequate credit to small sector and ensure its delivery to this sector.

To provide access to the capital market and to encourage modernisation and technological upgradation, the government decided to allow equity participation by other industrial undertakings in the SSI, not exceeding 24 per cent of the total shareholding. This would provide a powerful push to ancillarisation and sub-contracting leading to expansion of employment opportunities.

A beginning was made towards solving the problem of delayed payments to small industries by setting up 'factoring' services through Small Industries Development Bank of India (SIDBI). Factoring services imply that SIDBI or any commercial bank will buy the manufacturer's invoices from SSI units and take the responsibility for collecting payments due to them by charging a commission or brokerage. The policy statement further mentions that network of such services would be set up throughout the country and operated through commercial banks.

Infrastructural Facilities

A Technology Development Cell (TDC) would be set up in the Small Industries Development Corporation to improve the technology of small-scale units, thereby raising their productivity and improving their competitive strength.

The state will ensure adequate and equitable distribution of indigenous and imported raw materials to the small-scale sector, particularly the tiny sector.

Marketing and Exports

National Small Industries Corporation (NSIC) would undertake the marketing of mass consumption goods under a common brand name and Small Industries Development Corporation (SIDC) has been recognised as the nodal agency to promote exports of small-scale industries.

Village Industries : Handloom Sector

Janata Cloth Scheme which sustains weavers often on a minimum level of livelihood will be phased out by the terminal year of the Eighth Plan and replaced by the omnibus project package scheme under which substantial funds will be provided for modernisation of looms, training, provision of better designs, provision of better dyes and chemicals and marketing assistance. All this will be done to sustain employment in the rural areas and improve the quality of life for handloom weavers who contribute 30 per cent of total textile production in the country.

Handicraft Sector and other Village Industries

To encourage non-farm employment, the activities of the Khadi and Villages Industries Commission will be expanded and they will be using the area development approach to specially benefit the weaker sections like scheduled castes and scheduled tribes and women throughout the country.

Critics find that the new small sector policy suffers from several shortcomings. It would be appropriate to note some of them :

First, although emphasis is put on adequate supply of credit, no concrete suggestions have been made to increase the supply of credit to the SSIs. Even before, the supply of cheap credit was a myth. It was barely 0.5 to 1.0 per cent lower rate of interest that was charged to SSIs. This was not enough.

Secondly, the new small sector policy permits large undertakings—Indian or foreign – to hold 24 per cent equity in small undertakings. This is being allowed on the plea that these undertakings will bring about modern technology to small units. But this policy will make the small units appendages of the large units. With 24 per cent equity holding, the large units can exercise complete control of the small units. Even now, it is argued that, several big units create fake small units to benefit from the concessions available to such units. The new policy only legalises this phenomenon.

Thirdly, one of the principal causes of the sickness of small units is that big firms (the principals) delay payments to small units. As a result, the cash flow available to small units becomes less and they find it difficult to continue production. The policy leaves much to be desired as a form of action in this area. There is a need to make the law more stringent and more effective to check delayed payments.

Fourthly, the new policy does very little to control the widely prevalent sickness among the sick units. According to the Economic Survey (1993-94), there were 2.46 lakh sick units in the small sector with outstanding bank credit of Rs.3,100 crore. Studies about sickness reveal that poor management and lack of professional training are the major causes of sickness. The new policy should have given more attention to training of small entrepreneurs.

A better course would have been to develop an umbrella type co-operative of entrepreneurs so that they can guide entrepreneurs in the selection of projects, provide information about the supply of inputs, techniques of production and help in the marketing of their output. Co-operatives could also become agencies to secure adequate credit. The new policy, instead of promoting them, has chosen the dangerous path of corporatisation of these units. In other words, instead of strengthening small enterprises, the new policy only permits easy entry by big business to control these units. Such a policy, therefore, cannot be considered as appropriate from the point of view of growth and equity.

Check Your Progress 3

1) What is the share of SSI sector in production, employment and exports of the manufacturing sector ?

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2) List three major recommendations of Small Sector Industrial Policy (1991).

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18.7 VILLAGE AND SMALL INDUSTRIES IN THE EIGHTH PLAN

The Eighth Plan (1992-97) considered village and small industries as the vehicles of generating employment. In the process, they would also provide help in the removal of poverty. With this philosophy stated in the Eighth Plan, an allocation of Rs.6,334 crore was made in the public sector to develop village and small industries. The targets set for the production, employment and exports are given in Table 18.4. The data reveal that there are two major sectors of SSIs – the modern SSI sector and the traditional SSI sector. The modern sector production is expected to increase from Rs.1,74,378 crore in 1991-92 to Rs.2,53,343 crore in 1996-97. In other words, the modern SSI sector will account for 86 per cent of the total production at the end of the Eighth Plan and the traditional sector will merely account for the balance 14 per cent. So far as employment is concerned, the employment in modern sector is likely to increase from 179 lakh in 1991-92 to 225 lakh, but in the traditional sector will increase from 264 lakh to 328 lakh. In relative terms, the share of employment between the modern and traditional sectors will remain constant, i.e., 41 per cent and 59 per cent respectively. However, exports from the modern sector will rise from Rs.12,658 crore to Rs.20,200 crore, while that of the traditional sector are expected to grow from Rs.10,331 crore in 1991-92 to Rs.30,015 crore in 1996-97. Consequently, the share of exports in the modern sector will decline from 55% to 40% during the Eighth Plan, that of the traditional sector will improve from 45% to 60%. The main contributor in this sharp increase in traditional sector exports will be handicrafts, whose exports are expected to shoot up from Rs.9,215 crore to Rs.27,915 crore—a rise of three times. Handicrafts, which blend utility with beauty, satisfy the needs of the richer classes who are the main buyers of these items.

Table-18.4 : Village and Small Industries – Eighth Plan Targets

Industry	Production (Rs. Crore)		Employment (lakh persons)		Exports (Rs. Crore)	
	1991-92	1996-97	1991-92	1996-97	1991-92	1996-97
1. Modern Small Scale Industry	1,74,378 (89.3)	2,53,343 (85.9)	179.0 (40.4)	225.5 (40.7)	12,658 (55.1)	20,200 (40.2)
a. Small Scale Industries	1,60,000	2,33,436	126.0	150.5	12,658	20,200
b. Powerloom Cloth	14,378	19,907	53.0	75.0	—	—
2. Traditional Industries	20,916 (10.7)	41,432 (14.1)	264.3 (59.6)	328.2 (59.3)	10,331 (44.9)	30,015 (59.8)
c. Khadi Cloth	278	560	14.6	16.5	—	—
d. Village Industries	2,150	3,760	35.4	46.3	—	—
e. Handloom Cloth	4,064	5,690	106.0	117.0	450	1,000
f. Sericulture-Raw Silk	996	1,590	54.6	65.0	600	1,000
g. Handicrafts	13,260	29,620	48.3	77.7	9,215	27,915
h. Coir fibre	168	212	5.5	5.8	66	100
Total (1+2)	1,95,294 (100.0)	2,94,775 (100.0)	443.5 (100.0)	553.7 (100.0)	22,989 (100.0)	50,215 (100.0)

Note: Figures in parentheses are percentages of the total.

Source: Compiled from Planning Commission, Eighth Five-Year Plan (1992-97).

From the ongoing analysis, it becomes clear that whereas the share of the organised private sector accounts for a total employment of 8.5 million, the village and small sector industries promise an employment of 55.3 million by 1996.97. Thus from the point of view of employment generation and poverty removal, the role of small scale industries is much larger than that of the large corporate sector which is the focus of new economic reforms. Even from the point of view of export promotion, the share of the small-scale industries has shown a continuous upward trend. Both these considerations are important and the government should, therefore, concentrate more efforts to develop this sector of the economy.

18.8 CONFLICT BETWEEN GOVERNMENT PRONOUNCEMENTS AND ACTUAL POLICY IMPLEMENTATION

There is a big gap between what the government professes and what it actually implements. The Expert Committee on Small Enterprises headed by Mr. Abid Hussain submitted its Report in January 1997, which made two significant recommendations. First, it pleaded for abolition of reservation on all items for the small-scale industries. This was recommended because a large number of products are not manufactured at all by the small-scale sector or their turnover is insignificant. Moreover, the policy of reservations is inconsistent with the new economic reforms that have been initiated since 1991. Second, the Committee recommended that ceiling on the investment in plant and machinery which was 5 lakh for tiny units be raised to Rs.25 lakh and for small enterprises and ancillary units from Rs.60/75 lakh to Rs.3 crore. The government has decided to raise the ceiling as suggested by the Abid Hussain Committee. The Finance Minister in his budget speech of 1997-98 dereserved 14 items, then reserved for the small-scale sector. The dereserved items include rice milling, dal milling, poultry feed, vinegar, synthetic syrups, biscuits, ice-creams, a variety of automobile parts and corrugated paper and paper boards.

Both decisions of the government have been criticised by the representatives of the SSIs. First, why has the ceiling been raised five times - from Rs.60 lakh to Rs.3 crore. One can appreciate raising the ceiling in view of rise in prices. But the price index between May 1990 and May 1997 rose only by 88 per cent. Thus there seems to be no justification for raising the ceiling limit by 500 per cent. Obviously, this has opened the SSI window for the large sector to enter the field reserved for small sector and take advantage of concessions available to it. This will reduce employment in the small sector and will have adverse effect from the point of view of social justice.

Out of 822 items reserved for the small sector, 60 items in the reserved list account for 80 per cent of total production. The government should have withdrawn reservation on such items, which are not being manufactured, by the SSIs, but the unfortunate reality that the government has dereserved 14 such items, which are among the most successful items in the group of 60 items. While the government advocates promotion of SSIs, in reality it follows policies, which adversely affect the SSIs. This conflict needs to be resolved, if the most vibrant and dynamic small sector has to be strengthened. The Working Group Report of the Planning Commission has argued in favour of continuance of reservation. The working group said: As a large number of reserved items were being produced by medium and large industries, dereservation may not only retard the growth of the SSI sector but also result in unfair competition by the large sector.

18.9 LET US SUM UP

Definition of Small Scale Enterprises

In 1990, the small enterprises were defined as those having investment in plant and machinery upto Rs.60 lakh and for ancillaries the investment limit was raised to RS.75 lakh. The ancillary unit was defined as one, which sells not less than 50% of its manufactures to one or more industrial units. The definition of tiny unit was revised to an investment limit upto 5 lakh.

In 1997, the government raised the investment limit of small-scale units, ancillary from Rs.60/75 lakh to Rs.3 crore and that for tiny units from Rs.5 lakh to Rs.25 lakh.

Small enterprises are classified into modern SSIs and traditional SSIs. Modern enterprises produce high value products like electric gadgets, mechanical tools and instruments, parts of computers, etc. Traditional SSIs include khadi and handloom, village industries, handicrafts, sericulture, etc. The share of the modern sector in the total production of the SSI sector was 86 per cent, but in employment it was only 40 per cent. Productivity per worker in the modern sector was 9 times that in traditional sector.

Rationale for Small Scale Enterprises

Four arguments are put forth in favour of SSIs:

- i) They generate large volume of employment as they are labour intensive.
- ii) The SSIs tend to distribute income more widely among a large number of small owners and workers. They reduce inequality and promote social justice.
- iii) Small enterprises promote a more decentralised pattern of production. Decentralisation helps to reduce over-crowding in cities and thus decreases pollution and growth of slums.
- iv) SSIs help to mobilise resources lying idle in rural and urban areas.

Annual Survey of Industries (1993-94) data reveal that productive capital per employee in large enterprises is 8 times that in small enterprises, but value added per unit of capital is 2.6 times in SSIs as against that in large enterprises. This supports the view that both from the point of view of employment and output, small units should be supported in a capital-scarce economy.

Growth of Small Sector in Indian Economy

Production of SSI units increased at the rate of 18-19 per cent during 1980-81 to 1995-96. Employment growth in SSI units was 5.8% per annum during 1980-81 to 1990-91 and was around 4 per cent during 1990-91 to 1995-96.

Exports of SSI units account for nearly 34 per cent of total exports in 1995-96.

State Policies to Remove Disabilities of SSIs

- i) Assistance in the allocation of scarce raw materials and imported components and equipment.
- ii) Provision of cheap credit.
- iii) Training to artisans and entrepreneurs engaged in SSEs.

iv) Assistance in the marketing of SSE products.

Small Sector Industrial Policy (1991)

It made the following major changes:

- i) Ceiling limit for Small Scale Industries was raised to Rs.60 lakh, for ancillaries to Rs.75 lakh and for tiny units to Rs.5 lakh.
- ii) All small industry-related service and business enterprises were recognised as SSIs.
- iii) Emphasis shifted from the supply of cheap credit to the supply of adequate credit.
- iv) Equity participation by industrial undertakings in SSIs allowed to the extent of 24% of total shareholding.
- v) To solve the problem of delayed payments to SSIs, factoring services will be made available by Small Industries Development Bank of India.
- vi) A Technology Development Cell to be set up to improve technology of SSI units so as to increase their productivity and competitive strength.
- vii) Janata Cloth Scheme to be phased out by the end of the Eighth Plan.
- viii) Modernisation of handloom sector to be undertaken.

Critics believe that permitting 24 per cent equity participation by large units in SSI sector will strengthen their control over SSIs. Moreover, the new policy does little to reduce delayed payments to SSIs by large units. It also bypasses the problem of industrial sickness of 2.46 lakh small units. New policy, instead of promoting co-operativisation of small units has chosen the dangerous path of corporatisation of SSIs.

Village and Small Industries in the Eighth Plan

The Eighth Plan targeted to increase output, employment and exports from the SSI sector. At the end of the Eighth Plan, the share of the modern SSI sector will be 86% and that of the traditional sector 14% in total production of SSI sector. But in employment and exports, the share of the traditional sector will be 59% and 60% respectively.

Whereas organised private sector employment will be about 8.5 million by 1996-97, the SSIs will account for an employment of 55.3 million.

Conflict between Government Pronouncements and Actual Policy Implementation

Government by accepting the recommendation of Abid Hussain Committee (1997) has raised the ceiling on the investment in plant and machinery for small enterprises and ancillaries to Rs.3 crore and for tiny enterprises to Rs.25 lakh. Secondly, the government has dereserved 14 items, which were earlier reserved for the small sector.

Critics point out that by raising the ceiling limit on investment for small sector, the government has opened the SSI sector window for the large sector. The government decision to de-reserve 14 successful items of the small sector will hurt the interests of small producers.

18.10 KEY WORDS

Ancillary Unit is defined as one, which sells not less than 50% of its manufactures to one or more industrial units.

Cooperativisation implies the process of increasingly bringing in more and more small units to come together so that they can act united. As a co-operative, they can exercise more influence and secure better benefits for themselves.

Corporatisation implies the process of increasing the share of the corporate sector in the share capital of a certain sector, may be the small-scale sector.

Factoring service imply that any development or commercial bank will buy the manufacturers' invoices from SSI units and take the responsibility for collecting payments due to them by charging a commission or brokerage.

Small Enterprises According to Government of India, a small enterprise is one whose investment in plant and machinery is up to Rs.3 crore.

Small Industries Development Bank of India (SIDBI) – A bank created to provide credit specifically for the development of small industries.

Small Industries Development Corporation (SIDC) – An organisation created for allocation of raw materials and components to SSIs on a priority basis.

Tiny Unit is defined as one whose investment in plant and machinery is up to Rs.25 lakh.

18.11 SOME USEFUL BOOKS

Ruddat Datt and KPM Sundharam, *Indian Economy*, S. Chand & Co., New Delhi (1997).

Planning Commission, *Second Five-Year Plan*.

Planning Commission, *Eighth Five Year Plan (1992-97)*.

Government of India, *Report of the Expert Committee on Small Enterprises (1997)*.

18.12 ANSWERS/HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) A small enterprise is defined on the basis of initial capital investment in it. Keeping in view inflationary rise in costs, this limit has been increased from time to time. Since 1997 this limit is Rs.3 crore.
- 2) An ancillary unit is one whose output is used as an input in large and medium industries. Presently, it is defined as one, which sells not less than 50% of its manufactures to one or more industrial units. The investment limit for ancillary units is Rs.3 crore.

Check Your Progress 2

- 1) The government provides assistance to SSIs with respect to allocation of raw material, cheaper credit, technical assistance and marketing facilities. See Section 18.4 for further details.
- 2) Three main institutions, which provide assistance to SSIs, are SIDC, CSIO and NSIC.

Check Your Progress 3

- 1) 35% in manufacturing output, 85% in employment and 40% in exports.
- 2) There are a number of measures taken by the small-scale industrial policy, 1991. Three important among them are: (i) adequate credit provision, (ii) equity participation by large industries, and (iii) marketing through NSIC through a common brand name.



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Block

5

INDUSTRY IN INDIA

UNIT 16

Industrialisation: Concepts and Problems **5**

UNIT 17

Role of State in Industrial Development **18**

UNIT 18

Small Scale Sector **36**

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BLOCK 5 INDUSTRY IN INDIA

Introduction

In this block we consider an important sector of the Indian economy, that is, the industrial sector. Here we discuss the policies as well as problems surrounding this sector.

This block consists of three units. Unit 16 describes the components of industrial sector in India. It also brings out two major problems of the sector such as unequal distribution of industries across states and industrial sickness. Unit 17 provides a brief review of the role of the state in industrial development. It assesses the development strategy and policy regimes governing this sector. The final unit, i.e., Unit 18 brings out the role of small-scale industries. It highlights the public policy towards this sector and problems confronting it.

UNIT 19 EMPLOYMENT STRUCTURE

Structure

- 19.0 Objectives
- 19.1 Introduction
- 19.2 Structure of the Economy
- 19.3 Sectoral Distribution of Employment
- 19.4 Restructuring of Workforce
- 19.5 Growth Rate of Employment
- 19.6 Employment Policy
- 19.7 Policy Agenda for Future
- 19.8 Let Us Sum Up
- 19.9 Keywords
- 19.10 Some Useful Books
- 19.11 Answers to Check Your Progress Exercises

19.0 OBJECTIVES

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

- 1 Explain the concept of the structure of the economy and employment structure ;
- 1 Describe re-structuring of workforce in India;
- 1 Discuss growth policy adopted by government; and
- 1 Brief the policy agenda for future.

19.1 INTRODUCTION

National Income of a country depends on the quantity and quality of its resources apart from technology. Resources can be of two types: material and human. Human labour is one of the productive resources. Human beings are the participants as also the beneficiaries of economic development. Their quantity is given by the size of the labour force: includes (Labour force) all active persons categorised as working (employed) and as 'seeking or available for work'. The size and composition of the labour force is determined by the population characteristics (i.e., fertility and mortality rates, sex composition, age structure and migration) and labour force participation rates. The quality of the labour force is determined by a multiple set of factors, viz.,

- 1 Health
- 1 Nutrition
- 1 Education
- 1 Training and skill formation
- 1 Technology

Some of these factors like education also affect the demographic characteristics. Other things remaining the same, higher the proportion of the population in the labour force, the more skilled and healthy it is, the richer would be the country. However, this does not mean that labour force participation rate increases always as the country becomes richer. After a certain stage of development, it may remain constant or even may decline.

In general, demand for labour (employment level) depends on growth rate of the economy, relative structure of prices of factors; pattern of demand for goods and services and nature of technology employed. The type of technology–capital intensive or labour intensive- adopted across the various sectors influences employment elasticity. Employment elasticity means the relative change in the growth rate of employment with respect to change in the growth rate of output. For example, if employment elasticity is 0.35 that means a one per cent increase in GDP leads 0.35 per cent increase in employment. Decline in employment elasticity brings shortfall in job creations. However, employment elasticities, which approach unity or more, are not at all desirable as it reflects poor productive employment.

According some studies, we should aim at an “all sectors” elasticity at the order of 0.5 to 0.6.

19.2 STRUCTURE OF THE ECONOMY

We had mentioned in Block-1 that economic activities in Indian economy can be divided under three broad sectors, viz., primary sector, secondary sector and tertiary sector. The primary sector is concerned with the exploitation of natural resources, i.e., agriculture, forestry and fisheries. The secondary sector includes mining manufacturing (both in organised and unorganised sectors) and construction. The tertiary sector deals with services of various types like those of trade, transport and communications, provision of financial and banking services, community services like health and education, public and personal services.

In India, the share of primary sector in GDP has decreased from 55.3 per cent in 1950-51 to 44.5 per cent in 1970-71 and further to 25.2 per cent in 1999-00. Agriculture contributes the bulk share (about 90 per cent) to the primary sector. It contributed 48.6 per cent in 1950-51 and its share came down to 39.7 per cent in 1970-71 and 23.2 per cent in 1999-2000. The share of secondary sector has shown a steady increase from 16.1 per cent of GDP in 1950-51 to 27 per cent in 1999-00. Within the secondary sector manufacturing contributed 17.1% of GDP during 1999-00. Similarly the share of tertiary sector has increased from 28.5 percent in 1950-51 to 47.8 per cent in 1999-00. The structural change in the composition of GDP is the consequence of the process of economic growth initiated during the plans. This is on the line of Fisher-Clark thesis, which stipulates that as economic development proceeds, the relative share of primary sector in employment and income generation will decline while that of secondary and tertiary sectors will rise.

However, the changing structure of GDP has not been accompanied by changing structure of the labour force. In spite of the decline in the share of agriculture in GDP almost two third of the working population (64.7%) is still engaged in agriculture. Some of the important reasons for continuing predominance of agriculture in employment are:

- 1) Capital intensive and labour saving technologies employed by the manufacturing sector and the consequent inability of the manufacturing sector to absorb more labour.
- 2) The proportion of rural population to total population in India was 74.6 per cent in 1991 against 26% in Russia, 24% in USA, 23% in Japan and 11% in UK.

Due to inadequate non-farm activities in rural areas, agriculture is accepted as a residual sector for employment by unskilled rural masses. Thus, whatever labour cannot be absorbed in the secondary and tertiary sectors, join the primary sector.

- 3) Failure to evolve technologies appropriate for labour surplus economies, which would have helped in absorbing more labour in the non-agriculture sector.

In comparison to changes in percentage share of manufacturing and services in the GDP, over a period of five decades, the proportion of workforce engaged in industry and services has been exceptionally low. Despite heavy investment in manufacturing, the percentage of workers in secondary sector has marginally increased from 10.7 per cent in 1951 to 12.7 per cent in 1991. Similarly in services sector, their proportion has marginally improved from 17.5 per cent in 1951 to 20.5 per cent in 1991.

Thus, broadly, we can conclude that there has been no clear shift in the workforce from primary to secondary and tertiary sectors of the economy since 1951. If we accept the view that economic development of a country is accompanied by a shift in working population from the primary to the secondary and ultimately to the tertiary sectors, then clearly India is not on the right path to economic progress.

Table 19.1: Percentage Share of GDP by industry of origin

	1951	1970-71	1980-81	1995
I Primary Sector	55.3	44.5	38.1	27.7
of which agriculture	48.6	39.7	34.7	
II Secondary Sector	16.1	23.6	25.9	31.1
III Tertiary Sector	28.5	31.9	36.0	41.2

Source: 1) Indian Economy by Ruddar Datt, 1996
 2) 1995 data has been compiled from Outlook 1996 and 1997, Asian Development,

Table 19.2: Percentage distribution of workers by sector

	1951	1961	1971	1981	1991	1993-94
Primary Sector	72.1	71.8	72.1	68.8	66.8	64.7
Secondary Sector	10.7	12.2	11.2	13.5	12.7	14.8
Tertiary Sector	17.2	16.0	16.7	17.7	20.5	20.5

Source: 1) Compiled from Indian Economy by Ruddar Datt 1996.
 2) For 1993 compiled from Structure of Workforce by Pravin Visaria, Indian Journal of Labour Economics Vol. 39, No.4, 1996.

Check Your Progress 1

Indicate whether the following statements are true or false:

- 1) Demand for labour is independent of output. ()
- 2) Change in the structure of GDP has been followed by change in the structure of employment. ()
- 3) The size of the labour force is determined by the population variables and labour force participation rate. ()

19.3 SECTORAL DISTRIBUTION OF EMPLOYMENT

Demand for labour is derived from demand for goods and services. Hence the growth and distribution of employment over sectors depend on the growth and distribution of output. Workforce re-structuring process over a period is influenced by changes in the following factors:

- 1 the basket of demand for goods and services
- 1 technology
- 1 productivity

As development proceeds, per capita income rises. Following Engel's law, as per capita incomes rise, changes take place in favour of superior foods like milk and food followed by increasing demand for manufactured consumer goods such as cloth. Such changes in consumption patterns induce corresponding changes in the structure of production. As the population rises upward within the middle range of per capita income levels, growth rates in demand for manufactures reach a peak. Households in the highest income groups tend to spend increasing proportion of their income on services.

Technological changes affect the growth of employment in general and in industries in particular. In many cases, choice of technology is governed purely by technological facts of production. However, in a lot of cases, a series of distortions in the labour market in the form of wages, union power and different subsidies for the use of capital, lower the price of capital in relation to labour and induce the employers to resort labour saving and labour displacing techniques. As a result, developing countries suffer from endemic surplus labour in the farm sector.

Supply side factors like fertility and mortality rates, age structure, labour force participation rate, etc. also influence the structure of employment, unemployment and under employment. If growth rate of labour force exceeds growth rate of employment, more people are added to the stock of unemployed persons. Since poor people cannot afford unemployment, they are not left with any other option but to join the agricultural sector. Thus, higher growth of labour force slows down the process of restructuring of the work force from agriculture to non-agriculture.

19.4 RE-STRUCTURING OF WORKFORCE

We have comprehensive data on employment from two sources namely:

- i) Population Census

ii) National Sample Survey Organisation (NSSO)

The NSSO data is more reliable and systemic as the definition of various concepts has remained uniform in various rounds of the survey and hence comparable and widely used. The census provides classification of workers on the basis of rural and urban workers. The census 1991 reveals that out of 314 million total workers, rural workers account for 249 million (79 per cent) and urban workers for 65 million (21 per cent).

We can study the re-structuring of workforce in terms of workers engaged in

- i) agriculture and non-agriculture
- ii) organised and unorganised sectors
- iii) wage employment and self employment

i) **Agriculture and non-agriculture sectors**

On the basis of proportionate change of workforce from agriculture to non-agriculture, we can divide the whole period of 1951-52 to 1993-94 into two sub-periods (a) 1951-52 to 1971-72 (b) 1972-73 to 1993-94.

a) **1951-52 to 1971-72:** Workforce structure has demonstrated no clear trend upto 1970. In 1971 census, the share of workforce engaged in agriculture increased from 71.8 per cent in 1961 to 72.1 percent in 1971. The proportion of agricultural labourers increased from 16.7 per cent in 1961 to 26.3 per cent in 1971 at the expense of the share of self-employed cultivators. Thus the workforce in primary sector was constant at 72 per cent between 1951 and 1971. In the absence of significant expansion of employment opportunity outside agriculture, workers had moved into the farm labour force. This possibly shows the growing concentration of land in a fewer hands, with small and marginal farmers being depressed of their land and joining the rank of landless labourers.

b) **1972-73 to 1993-94:** By 1981, the diversification of workforce improved even better than 1961 level. In agriculture, the share of working population came down from 72.1% in 1971 to 68.8 per cent in 1981. In manufacturing it increased from 11.2 per cent in 1971 to 13.5 per cent in 1981. In tertiary sector it marginally improved to 17.7 per cent in 1981. During 1980s the process of workforce diversification suffered a set back. The share of manufacturing in the workforce declined both in rural and urban areas. In urban areas the workforce share in transport, storage and communication also declined. As a result, in urban areas the share of workers in non-farm activities put together actually fell. *In rural areas there was also a substantial reduction in the relative importance of agricultural workers.* The tertiary sector both in rural and urban areas absorbed the workers unable to find productive jobs in other sectors.

NSS data 1993-94 indicate that after liberalisation, the situation has further deteriorated. In the economy as a whole, the share of workforce in agriculture went up and in non-agriculture declined. This trend of de-industrialisation has concentrated in rural areas. During 1987-88 to 1993-94 the number of people who found job in agriculture is roughly four times the number who obtained work in the non-farm sectors while in the proceeding quinquennium from 1983 to 1987-88 jobs generated in non-agriculture were three times higher than those of farm sector. Since technology adopted in manufacturing sector during eighties and

nineties has been more capital intensive, the rate of labour absorption in manufacturing sector has not been commensurate with its growth.

ii) Organised and Unorganised Sector

Let us first understand the concept of organised and unorganised sector. According to central statistical organisation (CSO) – unorganised sector include all those unincorporated organisations and household industries (other than organised ones) which are not regulated by any legislation and which do not maintain annual accounts or balance sheets. Corporate and quasi corporation enterprises set up under legislation or governed by administrative regulations or registrations having their balance sheets come under organised sector. Private non-profit institutions like chamber of commerce, trade associations etc. also come under this category. According to Industrial (Development and Regulation) Act, 1951 all production units employing 10 or more workers working with the aid of power (20 or more workers working without the aid of power) are statutorily required to register themselves. This segment is termed as the registered sector. The term organised sector is often used to represent the registered units. The remaining production units (those using less than 10 workers working with power or less than 20 workers working without the aid of power) are termed as unorganised sector. The term informal sector is also used for unregistered sector.

The employment structure in India is characterised by dualism consisting of modern sector (organised) and informal sector (unorganised). The main features of modern sector are: large scale production, use of modern technology, non-competitive product and higher wages to workers. Lower scale production, low capital intensity and competition, casualisation, contract labour, feminisation, etc. are the peculiar features of unorganised sector. Hence the growth of informal sector is the reflection of worsening the quality of employment.

As per census 1991, organised labour accounts for merely 9.4 per cent of total workers whereas unorganised labour accounts for 90.6 per cent. The broad characteristics of unorganised workers are: scattered nature of workplaces, low level of unionisation, lack of concrete employer-employee relationship, acute incidence of under-employment, incidence of home based, work etc. Various categories of workers like agricultural labourers, rural workers engaged in various non-farm activities like cottage, sericulture and so on, beedi workers, construction workers, domestic workers, etc. are covered in unorganised workers.

Although the share of organised and unorganised sector in total employment has remained almost constant overtime, yet within the various sectors, the share of unorganised sector has increased significantly. Of the total employees in respective sectors, 99.2 per cent in agriculture, forestry, fishing and plantation, 75 per cent in manufacturing, 78 per cent in construction, 98 per cent in commerce and trade, and 61.5 per cent in transport, storage and communication come under the unorganised sector.

iii) Wage Employment and Self-Employment

The proportion of self-employed has declined from 61.4 per cent in 1972-73 to 54.8 per cent in 1993-94. Similarly marginal decline has been observed in respect of regular employment from 15.4 percent in 1972-73 to 13.2 per cent in 1993-94. But there has been an increase in casual wage employment from 23.2 per cent in 1972-73 to 32 per cent in 1993-94. Increase in the proportion of casual

wage labour has been due to decline in the proportion of the self-employed in rural areas and decline in the regular wage workers in urban areas. The pace of casualisation is faster in case of male than among female workers. The rising share of casual employment at the cost of regular employment reflects deterioration in the quality of employment.

Table 19.3: Percentage Change in the Structure of Workforce in terms of Self employment and Wage Employment

Category	1972-73	1993-94
i) Self employed workers	61.4	54.8
ii) Wage employed		
a) Regular labour	15.4	23.2
b) Casual labour	13.2	32.0

Check Your Progress 2

- 1) As development proceeds, why does the share of manufacturing and tertiary sector increase in employment ?

.....

- 2) Do you think that rise in the casual labourers at the cost of regular employment indicate deterioration in the quality of employment ?

.....

- 3) What are the reasons for de-industrialisation of rural workforce in eighties and nineties?

.....

19.5 GROWTH RATE OF EMPLOYMENT

Between 1951 and 1990, the rate of growth of labour force in India was to the order of 2.44 percent per annum while that of employment was only 2.20 per cent per annum. During 1985-92 (7 year period) labour force increased at the rate of 1.89 per cent and employment increased at the rate of 1.76 per cent. The

Labour and Employment

persistent gap between the growth rate of employment and that of labour force has added to the stock of unemployed persons. As a result, rate of unemployment increased from 0.21 per cent in 1951 to 3.63 per cent in 1961, and further to 4.52 in 1980, 5.33 in 1992 and 5.51 in 1995.

In absolute terms, unemployment, which accounted for 0.34 million in 1951, rose to 5.2 million in 1969, then increased to 11.5 million in 1985 and was about 18.7 million in 1995. In other words, unemployment has growth both in absolute and in percentage terms.

Table 19.4: Labour Force, Employment and Unemployment

Year	Labour force (in Million)	Employment (in Million)	Unemployment (in Million)	Unemployment Rate (in %)
1951	162.01	161.67	0.34	0.21
1961	178.44	171.96	6.48	3.63
1969	208.20	203.01	5.19	2.50
1974	234.15	224.04	10.11	4.32
1980	256.34	244.75	11.50	4.52
1985	279.38	266.69	12.69	4.54
1992	318.73	301.73	17.00	5.53
1995	339.21	320.51	18.70	5.51

Source: Employment Policy in the Ninth Plan paper by Prof. Ruddar Datt.

During the period 1987-88 to 1993-94 rate of growth of female employment declined and this decline was more visible in rural areas. During this period growth rate of employment for both male and female was significantly lower in rural areas as compared to the urban areas.

Deceleration in the rate of growth of employment has been particularly sharp in the organised sector from 2.48 per cent to 1.38 per cent. Although this deceleration has been observed generally in all the sectors, it has been steepest in manufacturing sector. Employment in organised manufacturing sector has virtually stagnated and large contribution to growth in employment has been made by the unorganised sector in recent years.

The immediate cause of decline in employment growth during eighties was a decline in employment elasticities in all major sectors, i.e., agriculture, manufacturing and services. During 1970s one per cent increase in GDP led to an increase in employment of the order of 0.61 per cent. However, in 1980s one per cent increase in GDP resulted in an employment increase of only 0.32 per cent. In 1990s the employment elasticity improved in agriculture and in services while in manufacturing it remained as low as in 1980s. Much of the collapse of employment elasticity in manufacturing can be traced to the substantial restructuring of industrial sector took place during eighties. The segments like capital goods and consumer durables, where production processes are characterised by low labour intensity grew fastest. On the other hand, highly labour intensive industries like cotton textiles grew slowly and even contracted. Further, change in the demand pattern of goods in favour of more sophisticated and higher quality of goods also tended to reduce labour absorption. Slow growth of employment in 1990s has

been due to larger negative rates of growth in public and private investment in 1991-92 and subsequent decline of public gross fixed capital formation in 1992-93. Substantial fall in public spending in social sector is also responsible for slow growth of employment.

Thus, it can be concluded that higher growth rate of value added in organised manufacturing sector and lower employment growth rate during eighties and nineties does indicate that there is no automatic link between rate of growth of GDP and rate of growth of employment. Decline in employment elasticity in manufacturing sector during eighties and nineties has wider implications for employment strategy for future. The policies of liberalisation being pursued under the new industrial policy are giving emphasis on market forces. But such exclusive faith on the market may generate either jobless growth or higher growth rate of output at a lower rate of employment.

Table-19.5: Growth Rate of GDP and Employment

	Growth of GDP per annum (%)	Growth rate of Employment per annum (%)	Employment Elasticity
I Five Year Plan (1951-56)	3.6	0.39	0.11
II Plan (1956-61)	4.2	0.85	0.20
III Plan (1961-66)	2.8	2.03	0.73
Annual Plans (1967-69)	3.9	2.21	0.57
IV Plan (1969-74)	3.3	1.99	0.60
V Plan (1974-79)	4.8	1.84	0.38
V Plan (1980-85)	5.7	1.73	0.30
VII Plan (1985-90)	5.8	1.89	0.33
1990-92	3.4	1.55	0.44
1992-95	5.8	2.03	0.35

Source: Employment Policy in the Ninth Plan, presented by Prof. Ruddar Datt in a seminar at IAMR, Delhi.

19.6 EMPLOYMENT POLICY

Based on the approach and policy initiatives, the employment policy in India can be discussed under three phases:

- i) **Phase (1950 to 1970) :** In the initial years of planning ‘trickle down’ approach was followed. It was thought that generation of employment was the function of growth rate in the economy and thus growth would take care of employment. It was estimated that output growth would taken place at the rate of 5 per cent per annum while the growth of labour force would not be beyond

2 per cent per annum. In the sixties, it was realised that none of these two expectations materialised. The validity of trickle down theory remained questionable.

- ii) **Phase II (1970-80):** After publication of National Sample Survey (NSS) data on employment and unemployment, it was realised that employment generation required a special focus in development planning. Plan strategies, policies and programmes were evolved and used for employment generation. Creation of employment opportunities figured among important objectives of Fifth Five Year Plan (1974-79). Special employment programmes providing temporary relief to weaker sections were launched. Some of these programmes were – Marginal Farmers and Agricultural Labourers, Small Farmers Development Agencies, Integrated Dryland Agricultural Development, Agro-Services Centres, Rural Work Programme and so on.
- iii) **Phase III (1980 and onwards):** Since the sixth five year plan (1980-85) employment generation and removal of poverty have been accorded priority. Special efforts have been made to generate employment opportunities. Group based and area based employment generation and poverty alleviation programmes have been launched. Individuals targeting approach has been followed. Details about the poverty alleviation programmes are discussed in the next unit.

19.7 THE POLICY AGENDA

In view of the rising unemployment both in absolute and relative terms, there is a need to pursue a combination of policies for economic growth, which fully engage the labour-force. Development of small scale/cottage industries, technology, human resource development, manpower planning, wage policy, etc. all play their important roles in generation of employment opportunities. All these points are discussed below:

Changing Structure of Production

Rapid agricultural growth is generally associated with rapid increase in employment in agriculture, allied agriculture activities and in the rural non-agricultural occupations. This also has a tendency to increase real wage rates in the short run. Consequent to agricultural growth employment generation is spread all over the rural region and not concentrated in a few urban areas. Agriculture plays a crucial role in enhancing surplus, employment and exports. Hence, emphasis should be given on crop diversification, commercialisation and establishing growth linkages with non-farm activities and enterprises.

Small scale and cottage industries have more labour absorption potential. These need to be assisted in increasing productivity and income. In the long run, employment growth cannot be sustained in case it is based on low productivity. Industries, which show good prospects of employment growth such as agro based, or construction industry should be assisted in increasing linkages to other sectors where such linkages are proved to be efficient. Assistance can be given

through credit management, development and quality control schemes. Even the industries like large scale manufacturing which have low and falling rate of labour-absorption may have large indirect effects through linkages with small industries, e.g., transport, construction and services. Such industries should also be promoted.

Role of Technology

Modernisation and technological changes have to be viewed against a longer term perspective and with due regard to the positive effects on employment from higher levels of efficiency and productivity. The technique, which maximise both the rate of growth of output and employment, requires to be preferred. Although research and development are generally confined to capital intensive techniques, improvement can also take place in labour intensive techniques. The labour intensive techniques being of simpler in design and wider use may also be cheaper. In short, the choice of technology has to be in favour of the socially profitable techniques of producing a given commodity.

Human Resource Development

A part of unemployment problem arises out of the mismatch between the skill requirements of employment opportunities and the skill base of the job seekers. This mismatch is likely to become more acute in the process of rapid structural changes in the economy. It is therefore necessary to orient the educational and training systems towards improving its capability to supply the requisite skills in the medium and long terms. Greater flexibility should be introduced in the training system so that changes in the needs of skills in the labour market can be quickly responded to. Further education and training system need to be designed to impart suitable training to the large mass of workers employed as self employed and wage earners in the unorganised sector. Up-gradation of their skills is essential for raising their productivity and income levels.

Manpower Planning

In order to avoid surplus or shortage of manpower, it is necessary to have an idea of the likely employment opportunities that would be generated in the economy by sector, by occupations and by educational skill categories. Employment estimation and manpower forecast are a part of manpower planning. Manpower planning plays a crucial role in monitoring the labour market processes and diagnosing the emerging mismatches. Apart from supply parameters, linkages of human resource planning to overall manpower planning is needed so that there is an interactive process of adjustment between demand for and supply of manpower.

Wage Policy

We may recall that demand for labour is derived. The wage rate as an indicator of purchasing power of labourers determine the size of aggregate demand for goods and services which in turn determine the level of demand for labour in the labour market. In Indian conditions, around 91 percent of workforce is engaged in unorganised sector, where wages are low and working condition is bad. Wage protection through legislative measures and appropriate wage policy will therefore, be helpful in expansion of job opportunities.

Existing statutory provision of minimum wages for workers in the scheduled employments has been inadequate in its coverage and implementation. A large part of the workforce is still outside the purview of wages fixed under the Minimum Wages Act. There is a big gap between actual wages and wages fixed under the Act. Effective implementation of wages is needed.

Wide differences in wages prevail between the organised and unorganised sectors even in similar activities and occupations. Changes in wage rates and wage levels overtime very significantly. The levels of and changes in wages and salaries often have no relation with productivity and wages. It is therefore necessary that a national wage policy is evolved that guides changes in wages and salary levels and wage structure.

Population Policies

Population and labour force are growing faster than growth of employment. To solve the unemployment problem in the long run, it is necessary to reduce the population growth rate. Control of fertility rate in combination with other social and economic improvements like increased female education and participation will help in reducing population growth rate.

Special Employment Programmes

Adoption of an employment oriented strategy is expected to attain the goal of full employment in the long-run. Hence provision of short term employment for the unemployed and under-employed, particularly among the poor and the vulnerable, is necessary in the interim period. Special employment programmes therefore need to be continued. You will find more details on this part in next unit.

Check Your Progress 3

- 1) How does training and skill development help in reducing unemployment?
.....
.....
.....

- 2) Do you think that suitable wage policy play a positive role in labour absorption?
.....
.....
.....

- 3) What are the main features of employment policy being followed since 1980?
.....
.....
.....

19.8 LET US SUM UP

National income of a country depends on the quantity and quality of the resources it employs. Human labour is one of the productive resources. The size and composition of labour force is determined by population variables and labour force participation rate. Its quality is determined by a set of factors such as health, nutrition, education and training, technology.

Changing structure of GDP in India has not been accompanied by changing structure of workforce. There is no clear shift in the workforce from primary to secondary and tertiary sectors in the economy since 1951. From demand side, employment structure is influenced by changes in the basket of demand for goods and services, technology and productivity. The workforce structure has demonstrated no clear trend upto 1970. By 1981, the diversification of workforce improved. However, diversification deteriorated further in 1990 after liberalisation. De-industrialisation has concentrated in rural areas. Unorganised sector predominates in employment and its share has increased significantly across various sectors. Increasing share of casual employment at the cost of regular employment in urban areas reflect the deterioration in the quality of employment.

The divergence between the growth rate of employment and that of labour force has added to the stock of unemployed persons. As a result, unemployment has increased both in absolute and relative terms. Higher growth rate of value added in organised manufacturing sector and lower employment growth rate does indicate lack of automatic link between growth of GDP and growth of employment. Decline in the employment elasticity during eighties and nineties reflect that exclusive faith on the market in new economic policy may generate either jobless growth or higher growth rate of output at lower rate of employment.

19.9 KEY WORDS

Labour Force: All the active persons categorised as working (employed) and as seeking or available for work (or unemployed) together constitute the labour force.

Work Participation Rate: The ratio of labour force to total population is termed as Work participation rate.

Workers (or employed): Persons engaged in any economically gainful activity are considered workers or employed.

Self-employed: Persons who are engaged in their own farm or non-farm enterprises are defined as 'self-employed'.

Regular Salaried/wage: Persons working in others' farm or non-farm enterprises (both household and non-household) and getting in return salary or wages on a regular basis (not on daily or periodic renewal of work contract) are treated as regular salaried/wage employees.

Casual Labour: Persons engaged in others' farm or non-farm enterprises and getting in return wages according to the terms of a daily or periodic work contract are treated as casual wage labour.

Usual Status: National Sample Survey provides three sets of estimates of employment/unemployment: usual status, weekly status and daily status. Usual status approach takes into consideration a reference period of 365 days proceeding the date of survey.

19.10 SOME USEFUL BOOKS

Employment Policy in India by D.S. Awasthi (ed.), Indian Economic Association.

Wage Employment Programmes in Rural Development by Indira Hirway, Oxford & IBH Publishing Co. (P) Ltd., New Delhi, 1986.

Trends in Poverty, Wages and Employment in India by Sheila Bhalla published in Indian Journal of Labour Economics, April-June 1997, Vol. 40, Number 2.

Asian Employment Programmes, ILO Working Papers by Mustafa Alam.

Employment Challenges for the 90s, World Employment Programme, ILO, 1990 Chapter 2, PP.13-54.

Eighth Five Year Plan (1992-97) Vol. 1, Chapter 6, Page 116-135.

19.11 ANSWER/HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) False
- 2) False
- 3) True

Check Your Progress 2

- 1) Please see Section 19.3
- 2) Yes
- 3) Please see Section 19.5

Check Your Progress 3

- 1) See Section 19.7 – Human Resource Development
- 2) Yes
- 3) See Section 19.6

UNIT 20 UNEMPLOYMENT

Structure

- 20.0 Objectives
- 20.1 Introduction
- 20.2 Meaning of Unemployment
- 20.3 Nature of Unemployment in India
 - 20.3.1 Rural Unemployment
 - 20.3.2 Urban Unemployment
- 20.4 Causes of Unemployment
 - 20.4.1 Slow Economic Growth Process
 - 20.4.2 Increase in Labour Force
 - 20.4.3 Inappropriate Technology
 - 20.4.4 Inappropriate Educational System
- 20.5 Measurement of Unemployment
 - 20.5.1 Usual Status Unemployment
 - 20.5.2 Current Weekly Status
 - 20.5.3 Current Daily Status
 - 20.5.4 Magnitude of the Problem of Unemployment
 - 20.5.5 Education and Unemployment
 - 20.5.6 Higher Incidence of Unemployment Among Females
 - 20.5.7 Regional Dimension in Unemployment
- 20.6 Government Policy Towards Unemployment
 - 20.6.1 Employment Policy up to Eighth Five Year Plan
 - 20.6.2 Employment Scenario in the Ninth Five Year Plan
- 20.7 An Overview of Employment Schemes
 - 20.7.1 National Rural Employment Programme
 - 20.7.2 Integrated Rural Development Programme
 - 20.7.3 Rural Landless Employment Guarantee Programme
 - 20.7.4 Jawahar Rozgar Yojna
 - 20.7.5 Training for Rural Youth for Self Employment
- 20.8 Let Us Sum Up
- 20.9 Some Useful Books
- 20.10 Key Words
- 20.11 Answers/Hints to Check Your Progress

20.0 OBJECTIVES

This unit gives an overview of the problem of unemployment in India and the policy measures adopted to overcome this problem. On going through it you will be in a position to:

- 1 explain the meaning of unemployment;
- 1 identify the types of unemployment found in India;
- 1 describe the extent of unemployment in India;
- 1 identify the causes of unemployment;
- 1 examine Government policy for removing unemployment; and
- 1 explain different unemployment eradication schemes in India.

20.1 INTRODUCTION

Expansion of employment opportunities has been an important objective of development planning in India. Although there has been a significant growth in employment opportunities over the years, due to fast rising population, volume of unemployment has been on increase. Unemployment is a normal phenomenon in all market economies irrespective of their level of development. But in an underdeveloped economy due to widespread poverty unemployment is not only painful for the society but also implies wastage of resources, which could have been used more effectively for the development of the economy. Thus, fundamental objective for a developing economy like India is to achieve maximum possible employment.

20.2 MEANING OF UNEMPLOYMENT

In simple words a person, who is not gainfully employed in any productive activity, is called unemployed. Unemployment could be voluntary or involuntary. However, there is no scientific treatment with the help of which we can distinguish between voluntary and involuntary unemployment. Generally speaking people in the age group of 15-59 years are considered to be in the working population of a country and the concept of unemployment is restricted to this group of people only. That is, children and old persons are not included in the definition of unemployment. However, some economists suggest a broader definition. It should include (i) all persons (men, women and children) who are working and (ii) those not working, but are searching for work. There may be a section of society, which is not interested, in any gainful employment. There may be some people who may be interested in jobs at wage rates higher than those prevailing in the labour market. Persons falling in above two categories are called voluntarily unemployed.

Involuntary unemployment is characterised by a situation in which people are prepared to work at prevailing wage rate but they are not able to get employment.

In economics the term “unemployment” refers to only involuntary unemployment and not voluntary employment.

The problem of unemployment in underdeveloped economies is different from that in developed economies. In developed economies generally unemployment takes the form of cyclical unemployment or frictional unemployment. Cyclical unemployment arises due to cyclical movements in economic activities. Frictional unemployment takes place because of shift to a new technology. Thus, cyclical and frictional unemployment are temporary in nature.

On the other hand, the nature of unemployment in underdeveloped economies is basically structural in nature. In an under-developed economy the demand for labour is less mainly due to agricultural backwardness, undeveloped industries and small size of the service sector. Although the type of unemployment found in underdeveloped economies fits into the definition of involuntary unemployment, is much different from the nature of unemployment found in developed economies.

Check Your Progress 1

1) What is voluntary unemployment?

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2) What is involuntary unemployment?

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.....

3) How is the nature of unemployment in underdeveloped economies different from that in developed economies?

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20.3 NATURE OF UNEMPLOYMENT IN INDIA

In India the problem of unemployment is much more serious than what we find in developed economies. India is an under-developed though a developing economy. It is important to emphasise that unemployment in underdeveloped economy like India is not the result of deficiency in effective demand but in fact a result of shortage of capital equipment and complimentary resources. In India there are various types of unemployment. Generally speaking it takes the forms of rural unemployment and urban unemployment.

20.3.1 Rural Unemployment

Bulk of unemployment in India is found in the rural areas. There are two main aspects of rural unemployment: seasonal and chronic disguised unemployment.

Agriculture is the principal occupation in rural India. By nature agriculture is a seasonal occupation. Therefore bulk of rural population remains seasonally unemployed in the absence of alternative employment opportunities. It has been estimated that a sizeable portion of population engaged in agriculture remains idle for at least 5-7 months in a year.

Second aspect of rural unemployment is chronic disguised unemployment. As per the 1991 census report about two third of the population is engaged in the primary sector (agriculture and allied activities). Working population in agriculture is increasing consistently in absolute terms. While in 1951 over 100 million persons were engaged in agricultural sector, in 1997 their number rose to 237.31 million. Such a big increase in the working population engaged in this sector without there being a corresponding increase in the area of cultivation, has resulted in overcrowding in agriculture. This is a situation where even if surplus population is withdrawn from agriculture, production will not be affected (provided the remaining labour force works to the best of its abilities). Such a type of situation is described as disguised unemployment or underemployment. In the words of Nurkse, marginal productivity of surplus labour so defined is zero. The main problem in this type of unemployment is that apparently all persons seem to be employed but enough work is not available to all. An example will make this concept of disguised unemployment more clear. Suppose there are 10 persons working on the farm, while less work is available. This work is shared by all persons working on the farms, as there exists no employment opportunity. If some workers are withdrawn from the farm, those remaining at farm are able to accomplish the work and farm output does not get affected, such a situation is called disguised unemployment.

Another aspect of unemployment in rural areas, which needs special attention, is the educated unemployment. With the spread of education in rural areas, there has emerged a class in rural areas also which is literate and in some cases even highly educated. They find themselves misfit in usual agricultural operations. They remain idle in rural areas due to lack of employment opportunities outside rural areas.

Concept of rural unemployment is important to understand the phenomenon of rural poor. Unemployed or underemployed in rural areas constitute mainly the class of rural poor. This class mainly consists of landless labourers and marginal farmers. Therefore, solution for eradication of rural poverty lies in eradication of unemployment.

20.3.2 Urban Unemployment

Whereas most of the unemployment found in rural areas is disguised, most of the unemployment in urban areas is open. Urban unemployment is a source of severe social tensions.

Urban unemployment can be of three types.

First kind of unemployment found in urban areas is of unskilled industrial workers. Such unemployment may be termed as blue-collar unemployment. Although there has been a significant expansion of industrial sector, industrial unemployment has expanded over the years. Various factors have contributed to this phenomenon.

- 1 Increase in economically active population in the country
- 1 Population in urban areas has grown faster than in rural areas, because of migration from rural to urban areas. In addition during off-season, agricultural labour shifts to urban areas to seek employment.

- 1 Concentration of industries in urban areas
- 1 Decay of cottage and small-scale industries in rural areas.

Second kind of unemployment found in urban areas is that of educated middle class. Such unemployment may be called white-collar unemployment. There are many causes of educated unemployment. Firstly, whereas there has been a very fast increase in educated population, thanks to fast expansion of educational institutions, technical education and training has lagged behind. Secondly, economic growth has been at a very slow rate. This has resulted in a very inadequate growth of employment opportunities, including engineers, technical personnel along with arts and commerce graduates and post graduates.

Number of educated unemployed was 2.44 lakh in 1951, which rose to 34.72 lakh in 1980, 47 lakh in 1985 and 68 lakh in 1992. According to Ninth Five Year Plan - "National Sample Surveys shows that over the period 1983 to 1993-94, the proportion of those educated to a level of secondary school or higher among the unemployed persons increased from 47 per cent to 64 per cent. While a high proportion of the literates among unemployed shows un-utilisation of scarce resources put in for education of the people, it also indicates a mismatch between the kind of job opportunities that are needed and those available in the job market. Clearly the increase of literates among the unemployed and further among the literate unemployed, of those with higher level of educational attainment points to the need for skilled jobs rather than the simple low productive manual labour that an illiterate has to resort to for a living".

Thirdly, there are emerging trends of underemployment of those who are seeking job on part-time basis, while they pursue their studies. Such job seekers, if they do not get jobs of their satisfaction, could be called underemployed. There could be many others, who have completed their education, but are not able to get job to the best of their abilities and capacities.

Check Your Progress 2

- 1) What are the two main types of unemployment found in rural India?

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- 2) Explain the nature of disguised unemployment in India.

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3) What are the different kinds of unemployment found in urban areas?

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20.4 CAUSES OF UNEMPLOYMENT

Foregoing analysis about trends and structure of unemployment in India, reveals the gravity of the problem. Now let us discuss the main causes of unemployment. These are :

- i) slow economic growth process,
- ii) rapid increase in labour force,
- iii) inappropriate technology, and
- iv) inappropriate education system and lack of manpower planning .

20.4.1 Slow Economic Growth Process

It is no doubt that the problem of unemployment is found in both developed as well as underdeveloped economies. Despite high incomes of these developed economies, problem of unemployment is prevalent there too. But the kind of unemployment found in underdeveloped countries is basically due to its low levels of development and slow growth process.

It is expected that as an economy grows, production expands and thus the employment opportunities. We find that in the past, after Independence there has been growth in production. As a result, absolute level of employment has also risen. But rate of growth in production has been less than the target. As a result, adequate number of employment opportunities could not be created.

But we should also keep in mind that growth alone is not expected to solve the problem of unemployment. Some economists have hinted at a possible conflict between employment and economic growth, in the early phase of development. In India also this conflict has been very apparent. In the early plans till sixth five-year plan this conflict was not recognized. As a result, although absolute level of employment increased, it was hardly sufficient to solve the problem of unemployment.

20.4.2 Increase in Labour Force

There has been significant growth in the labour force in the last fifty years, due to fast growing population. Since Independence, death rate has been declining very fast, without a corresponding fall in birth rate. As a result, population is growing at a very high rate; at present rate of growth of population is around 2%. This is naturally followed by fast expansion in labour force.

There is another factor, which has led to increase in labour force, due to urbanisation and changed attitude towards employment. After Independence, education among women has led to change in attitude of women towards employment. They now compete with men for employment. This phenomenon is more prevalent in urban areas.

Thus rapid growth in labour force can be ascribed to (i) fast growing population, (ii) changed attitude of women towards employment, (iii) failure of growth process to create sufficient additional jobs. All these factors have increased the problem of unemployment.

20.4.3 Inappropriate Technology

We understand that, in India labour is abundant while capital is a scarce factor of production. Therefore, to solve the problem of unemployment, we need to adopt such a technology, which makes use of more labour and less of capital to produce a given level of output. But, it is unfortunate that not only in industries, even in agricultural production capital is substituting labour very fast. Thus, capital-labour ratio has increased in production process. Technological change has been labour-saving.

While making a choice about technology, normally western model is adopted. We understand that in the west, labour is scarce and capital is abundant. Therefore, for them appropriate technology is capital intensive. But in India we cannot justify the use of more sophisticated and round about methods of production, which substitute capital for labour. But adoption of such a technology has led to larger unemployment.

A pertinent question at this point is that why, despite abundance of labour, capital-intensive technology is adopted in India. This happens because rate of return on capital and labour are not market determined. While on the one hand, labour is assured of minimum wages, rate of interest is kept low arbitrarily. As a result, people are inclined to make more use of capital-intensive technology, as it is economically more viable. According to W.A. Lions, investment in such a situation in capital equipment may be more profitable to individual capitalist but certainly not beneficial to society because it increases unemployment.

Rigid labour laws in India have also contributed towards adoption of capital-intensive production process. On the part of industries, it is quite difficult to reduce number of employees. Once a person is recruited, most likely he/she will be retained for life. In addition, labour-unrest and lack of work-culture has increased inefficiency of labour. These factors, again, have provided incentives for addition of labour-saving technology.

20.4.4 Inappropriate Educational System and Lack of Manpower Planning

We inherited educational system from our colonial rulers. Macaulay, who designed educational policy during the colonial period, had in mind the interests of British government. Macaulay designed a system, which could merely produce clerks and lower cadre executives for the British Government. Even after Independence,

there has been a fast expansion in the number of institutions, which impart education in arts and commerce. There has been a very little expansion in educational and training institutions providing technical, engineering and medical education. As a result, there has been a fast growth of unemployment among educated men and women, while shortage of technical and specialised personnel remained. Therefore, there is a need to change our educational system to an appropriate one, which takes into account needs of the society and develops human resources accordingly.

Moreover, there has been a total lack of manpower planning in India. For steady growth of any economy human resources play an important role. There should be long term planning for the provision of appropriate skills for meeting the requirements of development. No doubt there has been an increase in facilities for higher education, technical education, training in different fields, but they were not in accordance with development needs. The obvious result is surplus of manpower in some fields and deficit in others. We find widespread unemployment among graduates, postgraduates and even researchers in humanities while there is scarcity of physicians, engineers and technical personnel.

Check Your Progress 3

1) What are the main causes of the problem of unemployment in India? Explain.

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20.5 MEASUREMENT OF UNEMPLOYMENT

According to the conventional and most commonly used concept, unemployment means involuntary idleness, i.e., the time, for which individuals are available for and willing to work, but are not able to find work. It does not include disguised unemployment or underemployment, i.e., a situation of work with very low levels of productivity and income.

In India the problem of unemployment is of much larger magnitude than conventionally measured unemployment. Persons belonging to low income households cannot afford to remain unemployed and therefore they may be engaged in any work that is available, even if it yields a very low income. Thus, rates of unemployment as measured conventionally are deserved to be relatively low. We understand that in self-employed sectors and primary sectors work sharing is very common. We also understand that in India these are the dominant sectors in terms of number of labourers. Thus measures of open unemployment are inadequate for the purpose of measuring and analysing the problem of unemployment in India. Giving recognition to this fact, National Sample Survey Organisation (NSSO) provides estimates of magnitude of unemployment on the basis of three different concepts. These three concepts of unemployment are as follows:

- 1) Usual Status (US) Unemployment
- 2) Current Weekly Status (CWS) Unemployment
- 3) Current Daily Status (CDS) Unemployment

20.5.1 Usual Status Unemployment

A person is considered to be unemployed on usual status (US) basis if he/she was not working but was either seeking or was available for work for a relatively longer time during the reference year. Usual status unemployment rates could be regarded as a measure of chronic unemployment during the reference year. This measure provides the number of (chronically or over a long period) unemployed persons. This is the narrowest concept of unemployment, as estimate of unemployment given by this measure is lowest. This is obvious in a poor country like India, because very few can afford to remain without work over a long period and they take any work for short duration.

20.5.2 Current Weekly Status Unemployment

In this measure reference period is one week-a person is considered to be unemployed by current weekly status (CWS), if he/she had not worked for even one hour during the reference week. CWS is also a measure of chronic unemployment but with a reduced reference period. This again is a narrow concept of unemployment but is little more comprehensive as compared to usual status unemployment. According to this a person would be considered employed even if he was unemployed for six days of the reference week and for the seventh day he worked for an hour. That is, a person according to this concept would be considered unemployed only if he had not worked for a single hour on any day of the week, but was seeking and available for work. It may be noted that this measure does not give number of unemployed persons. It is a measure of unutilised time in terms of person weeks.

20.5.3 Current Daily Status Unemployment

Estimate of current daily status unemployment is made in terms of the total person days of unemployment. According to this concept, unemployment is measured as an aggregate of all the unemployment days of all persons in the labour force during the week under reference. Since this estimate includes both chronic unemployment as well as underemployment on weekly basis, this is the most comprehensive measure. It may be noted that this measure does not give the number of unemployed persons. It is a measure of unutilised time in terms of person days.

20.5.4 Magnitude of the Problem of Unemployment

In the foregoing sections we have discussed about different concepts of unemployment. Now let us know about the magnitude of the problem and its other aspects.

Table 20.1: Population, Labour Force and Employment

(in million)

	1978 ^(a)	1983 ^(b)	1994 ^(a)	1997 ^(c)	2002 ^(c)	2007 ^(c)
Population	637.6	725.80 (2.92)	893.67 (2.00)	649.89 (1.89)	1027.61 (1.59)	1107.51 ^(c) (1.51)
Labour Force	262.57	289.08 (2.16)	367.39 (2.31)	397.22 (2.43)	450.23 (2.54)	509.35 (2.50)
Employment	255.46	283.22 (2.32)	359.98 (2.31)	389.72 (2.47)	443.60 (2.62)	509.35 ^(d) (2.80)
Unemployment	7.11	5.86	7.41	7.5	6.63	negligible ⁽¹⁾

- Notes:*
1. Estimates of labour force and employment are on usual status concept and pertain to 15 years and above
 2. Figures in Parentheses are compound growth rates in the preceding period.
 - a. As on 1st January
 - b. As on 1st July
 - c. As on 1st April
 - d. Required to attain near full employment.

Source: Ninth Five-Year Plan, (1997-2002) Government of India, Planning Commission.

Table 20.1 shows that as per usual status concept there has been a gradual increase in number of unemployed whereas the rate of growth of employment has not shown any improvement in the decade preceding 1994. Seventh plan target fixes the projected rate of growth of employment at 2.62% with number of unemployed declining from 7.5 million in 1997 to 6.63 million by the year 2002. Target for the year 2007 is to reduce unemployment to a negligible level.

As per the current weekly status concept, the number of unemployed persons has declined from 22 per thousand in 1983 to 14 per thousand in 1993-94 (see Table 20.2). It is important to note that incidence of unemployment has decreased during the last decade, with a sharper decline during the recent years. In 1993-94, 8.6% of the usually employed persons were out of work when seen on a weekly status basis as compared to 15.6% in 1983 and 14.6% in 1987-88.

**Table 20.2: Usually employed persons classified by their current weekly status:
1993-94, 1987-88, 1983**

(Persons all India)

Activity according to current employed Weekly status	per thousand of the usually		
	1993-94	1987-88	1983
Employed	914	854	844
Out of work, due to being :	86	146	156
Unemployed	14	17	22
Not in labour force	72	128	133
All the usually employed	1000	1000	1000

The combined incidence of unemployment and underemployment among the labour force is shown in Table 20.3 given below. In this context we note that though open unemployment was only 2% in 1993-94, the incidence of unemployment and underemployment taken together was 10.45% in that year.

Activity Status	Proportion of Labour force	Remarks
1. Labour Force	100.00	Working or seeking work on usual status basis
2. Employed	89.55	Usual status employed staying in work force when classified by their weekly status
3. Unemployed	2.02	Incidence of open unemployment on usual status basis
4. Under-employed	8.43	Usual status employed going out of work when classified by their weekly status
Unemployed and Under-employed (3+4)	10.45	Open unemployment on usual status and the incidence of loss of work by the usually employed when classified by their weekly status

Source: Ninth Five-Year Plan, 1997-20002, Govt. of India, Planning Commission.

We have noted the extent of unemployment on the basis of usual status and current weekly status. But it would be important to note the number of days a person is employed in a year according to current weekly status concept. If a person is employed for 183 days, he is considered to be the main worker.

**Table 20.4: Persons Employed according to Current Weekly Status
Concept distributed by number of days worked in a week**

Days worked in a week	(Per thousand of employed)						
	Rural		Urban		All Areas		Persons
	Male	Female	Male	Female	Male	Female	
0.5-1.5	5	11	33	14	5	12	7
1.5-3.5	28	87	14	59	26	84	44
3.5-5.5	67	246	37	183	62	239	118
5.5-6.0	27	36	35	38	29	36	31
6.0-6.5	873	620	911	706	878	629	800
	1000	1000	1000	1000	1000	1000	1000

Source: Ninth Five-Year Plan, 1997-2002, Govt. of India, Planning Commission.

In Table 20.4 we find that about 5% of persons, who are identified as employed by the current weekly status concept, get work for three days or less in a week. In the case of the rural female identified as employed on the same concept but getting work for less than half a week, being much higher at around 10 percent as may be seen from the table.

20.5.5 Education and Unemployment

Characteristics of the unemployed persons help in determining the nature of employment opportunities that need to be created to utilise the labour force that is seeking work. In regard to educational characteristics of the unemployed persons there has been a substantial change since the early eighties. Both the enumeration approach of the census in identifying the unemployed persons, and the sampling approach of the National Sample Surveys on Employment and Unemployment reveal a substantial increase of literate among the unemployed persons.

Year	Table 20.5: Education Profile of the Unemployed in India					
	Illiterate	Level of Education			Literate and Above	All Employed
		Primary Census of Population (all age group) ^{1,3,4}	Middle	Secondary		
1981	29.62	14.57	16.84	38.97	70.38	100.00
1991	19.56	12.17	20.89	47.38	80.44	100.00
Sample Surveys on Employment and Unemployment (15 years and above) ^{1,2}						
1983	6.10	19.32	27.58	47.00	93.90	100.00
1993-94	5.24	11.01	20.20	63.55	94.76	100.00

Notes:

1. The concept used for identifying the unemployed in the population census are not exactly the same as those used in National Sample Surveys on employment and unemployment.
2. Sample Survey estimates are according to usual activity taking into consideration the subsidiary economic status of persons categorised as “not working”.
3. Education level secondary and above includes also those literates assigned education status as education level not classifiable, in 1981 and 1991 census.
4. Information on 1991 census is based on advanced tabulation of 100% data for states with a the population below 10 million and 10% sample data for states with population 10 million and above.

Source: Ninth Five-Year Plan, 1997-2002, Govt. of India, Planning Commission

20.5.6 Higher Incidence of Unemployment Among Females

As is expected a much smaller percentage of the female population both in rural and urban areas (especially in urban areas) are in the labour force, i.e., working

or seeking/ available for work. In 1973, in rural areas, 38% of females and 65% of males were in the labour force. In urban areas the corresponding percentages were 17% and 60% respectively. But the point to note is that the incidence of unemployment, i.e., the percentage of unemployed weeks (or days) to the total weeks (or days) in the labour force, was distinctly higher for females compared to that for males. In 1972-73 in rural areas the percentage of unemployed person-days for females was 11 as against 7 for males. The corresponding figures for females and males in urban areas were 14 and 8. In 1993-94 also the same trend is revealed.

20.5.7 Regional Dimension in Unemployment— Ninth Five Year Plan

Normally a macro-perspective is presented in a macroeconomic framework with regard to unemployment. But it would be of interest and importance to understand the regional realities regarding unemployment. Ninth five year plan gives details for regional variations, which could be useful for employment planning. If we do not attempt a regional perspective, there is a danger that an important aspect will get suppressed in macroeconomic planning. For this purpose, for Ninth Five Year Plan (1997-2002), Planning commission has divided major states into four important categories on the basis of the characteristics of labour force and employment.

Table 20.6: Regional Pattern of Unemployment Growth		
Sl.No.	Characteristics	States
1. U.P.	Increasing unemployment and higher	Bihar, Rajasthan and labour force growth
2.	Increasing unemployment but low growth of labour force.	Kerala and Punjab
3.	Decreasing unemployment but high growth of labour force.	Assam and Haryana
4.	Decreasing unemployment and low growth of labour force	AP, Gujarat, Karnataka, MP, Orissa, Maharashtra, Tamilnadu and West Bengal

In the first category come Bihar, Rajasthan and Uttar Pradesh which are expected to have a high rate of growth of labour force, whereas the rate of growth of employment is expected to be lower than the rate of growth of labour force which would mean increasing unemployment during the ninth five year plan.

In the second category come Kerala and Punjab, which are expected to witness not so high rate of growth of labour force. But these states are also expected to

witness increasing unemployment due to very low rate of employment growth during the Ninth Plan period.

In the third category we put Assam and Haryana, which are expected to witness a high growth of labour force, but rate of growth of employment is expected to be even higher as compared to rate of growth of labour force. This is expected to reduce the figure of unemployment.

In the fourth category come Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh, Orissa, Maharashtra, Tamil Nadu and West Bengal. These states are expected to witness a low rate of growth of labour force and rate of growth of employment is expected to be much higher than that of rate of growth of labour force. This would lead to a fall in unemployed labour force.

Table 20.7: Projected Change in Unemployment in Ninth Plan in States by the Trends in Labour Force and Employment						
Characteristics of labour force and employment	State	Employment growth	Labour force growth	Unemployment		
		1997-2002		1997	2002	Change
		(Per cent per annum)		(‘000 persons)		
Increasing unemployment and high labour force growth	Bihar	2.30	2.58	2153	2980	827
	Rajasthan	2.84	2.88	1023	1228	205
	Uttar Pradesh	2.20	2.57	933	2337	1405
	Region					2437
Increasing unemployment but low growth of labour force	Kerala	1.43	2.30	1373	2151	778
	Punjab	0.73	2.27	380	1162	781
	Region					1559
decreasing unemployment but high growth of labour force	Assam	3.69	2.73	522	182	-340
	Haryana	3.67	2.99	96	-151	-248
	Andhra Pradesh	3.28	2.39	617	-979	-1596
	Gujarat	2.55	2.37	..	-233	-233
	Karnataka	3.01	2.4	..	-659	-659
	Region					
Decreasing Unemployment and low growth of labour force	Madhya Pradesh	2.71	2.39	1722	1428	-294
	Orissa	2.54	2.10	633	386	-246
	Maharashtra	2.70	2.26	..	-996	-996
	Tamil Nadu	2.2	1.98	28	-370	-398
	West Bengal		3.15	2.52	256	-655
-911	Region					-5333
	All India	2.62	2.54	7500	6630	-870

Source: Ninth Five Year Plan, 1997-2000, Govt. of India, Planning Commission

1) Explain three concepts of unemployment used in India for estimation of unemployment in India.

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2) Explain education profile of unemployed in India.

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3) Explain regional dimension in the problem of unemployment in India.

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20.6 GOVERNMENT POLICY TOWARDS UNEMPLOYMENT

India’s economic planning has always put removal of unemployment as one of its basic objectives. But we have not been able to provide a long-term employment policy until Sixth Five Years Plan.

20.6.1 Employment Policy up to Eighth Five Year Plan

In the early days of economic planning economic growth was emphasized as the most important objective. It was thought that unemployment would automatically be tackled with economic growth. It was also thought that direct measures to eliminate unemployment could slow down the growth process. It was in the late seventies that more serious attempts were tried for a direct attack on the problem of unemployment. Sixth Five Year Plan document acknowledged the hard reality that despite growth, there has not been sufficient increase in employment opportunities. It clearly set two major goals of reducing under-employment for the majority of labour force and cutting down on long term unemployment.

In fourth FYP it was expected that there is a need to adopt a conscious approach

towards unemployment. It argued for comprehensive programmes of rural development, labour intensive public work programmes, application of labour intensive technology in industries and promotion of labour intensive industrial products for domestic and foreign markets. But this policy remained more on papers only as government did not change its policy regarding investment.

In fifth FYP also removal of unemployment was emphasised as a major objective. It considered that removal of unemployment is important from the perspective of distributive justice. For this purpose, and emphasis was also laid at generating self-employment opportunities.

In sixth FYP it was considered that employment opportunities had not adequately increased over the years. It was admitted that there is not much scope for creation of self-employment in the public sector. Therefore efforts should be made to influence demand and utilisation of manpower in the private sector. Self-employment in agriculture, small scale and cottage industries and non farm operations was emphasised.

Seventh plan although emphasised the role of agricultural sector for employment generation but it also considered that this sector alone cannot eliminate all unemployment. Therefore it emphasised at programme of rural development specially those of rural capital formation. Role of self-employment was also given a high priority.

Eighth FYP set the goal of employment for all, over a period. Outlining the strategy, Eighth Five Year Plan noted that “A high rate of output growth is necessary but not always sufficient condition for high growth of employment. A structure of growth with larger contribution of sectors having high employment content of output and use of production techniques favouring the use of labour greatly enhance the employment generation potential of growth. Employment growth has therefore to result primarily from the growth of the economy and restructuring of output composition of growth. There is no doubt that a larger and more efficient use of labour will accelerate the rate of growth itself but the latter would largely depend on the availability of other resources like capital and internal and external demand”.

It was said that employment potential of output growth can be raised by readjusting the composition and sub-sectors which can provide more employment for each addition in output. It was projected that during the eighth plan period total labour force will increase by 35 million.

It was said that if the goal of full employment is to be reached by 1997 the rate of growth of employment should be 4% per annum during eighth plan and if this goal is to be achieved by 2000 A.D. the employment growth should be 3% per annum. Regarding sectoral potential with regard to employment generation emphasis was laid down on agricultural development in the underdeveloped regions, employment in animal husbandry, fishery, horticulture etc. and regeneration of natural resources such as land and forests, rural and small scale industry, promotion of modern small scale industry etc.

20.6.1 Employment Scenario in Ninth Five Year Plan

In an earlier section of this unit we learnt about the elasticity of employment. We noted that over the years the elasticity of employment has gone down. Overall elasticity of employment is expected to be .38 during Ninth Five Year Plan. That implies that one percent increase in GDP would lead to .38 per cent increase in employment. During Ninth Five Year Plan target growth rate is 7 per cent per annum, which would create employment opportunities by 55 million. During the Ninth Five Year Plan addition in labour force is expected to be 54 million. Thus during this period unemployment will fall by 1 million only. However, if we fall short of the GDP growth rate target than we might end up with higher figure for unemployment than before. Say if growth rate is 6.2 per cent per annum, unemployment will increase by 6 million rather than going down.

Table 20.8 given below shows the expected addition in job opportunities in different sectors of the economy. We note that bulk of the increase in job opportunities is expected to be in agricultural sector, that is, 28 million. This will be possible if this sector shows a growth rate of 4.5 percent per annum. This target seems to be very high (higher than growth rate of agriculture in any of the five year plans). Even Planning Commission has accepted that, achievement of 4.5 per cent growth of agricultural sector is going to be a difficult task.

Table 20.8: Elasticity of Employment to GDP

Sector	Employment Elasticity				
	1977-78 to 1983	1983 to 1987-88	1987-88 to 1993-94	1983 to 1993-94	1997 to 2002
Projected					
1. Agriculture	0.54	0.43	0.49	0.50	
2. Mining and Quarrying	0.79	1.00	0.35	0.63	0.60
3. Manufacturing	0.53	0.43	0.29	0.35	0.25
4. Electricity	0.63	0.69	0.37	0.51	0.50
5. Construction	1.00	1.00	0.00	1.00	0.60
6. Trade and Transport	0.67	0.63	0.56	0.59	0.5
7. Financing, Real Estate, Insurance and Business Services	1.00	0.82	1.00	0.95	0.53
8. Community,	0.67	0.39	0.82	0.62	0.50

Social and
Personal
Services

All Sectors	0.53	0.39	0.39	0.39	0.38
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Note: Employment estimates are on usual status basis. (a) undefined for this period.

Check Your Progress 5

- 1) Give an overview of change in government policy on unemployment after sixth five year plan.

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20.7 AN OVERVIEW OF EMPLOYMENT SCHEMES

There was no long-term policy towards unemployment until Sixth Five Year Plan. Initial years of planning were characterised by lack of any clear unemployment policy and economic growth was emphasised as the most important objective. It was thought that unemployment would automatically be tackled with economic growth. But despite economic growth, poverty of the masses could not be removed. Then it was realised that a sustainable strategy of poverty alleviation has to be based on increasing the productive employment opportunities. It was also realised that rural poverty is primarily due to low rural productivity and unemployment. Thus programme for eradicating poverty has to be based on improving productivity and increasing employment in rural areas.

Various unemployment alleviation schemes, which were started especially from sixth five year plan, were based on this philosophy. It was decided that employment generation schemes would involve:

- i) creation of productive assets in rural areas for improving productivity.
- ii) provision of employment to a segment of rural population, which needs subsidiary employment.

So far many schemes for rural employment have been adopted. A brief overview of these schemes is being attempted in the following paragraphs.

20.7.1 National Rural Employment Programme

National Rural Employment Programme (NREP) was started as a base of Sixth Five Year Plan and was continued under Seventh Five Year Plan also. It was implemented as a scheme sponsored by the union Government. But its financial

burden was to be shared between the union and state governments equally. Entitlement of each state to the central fund was based on (i) incidence of poverty, and (ii) population of agricultural labourers, marginal farmers and marginal workers.

Weightage of each of these two factors was equal, that is 50 per cent. Under the scheme a district level employment plan (disaggregated block wise) was prepared. An estimate was required to be made about the number of persons who would seek work under the scheme and work opportunities likely to be available. Accordingly programmes were formulated in NREP. According to Planning Commission, implementing agencies were required to give priority to work relating to social forestry and pasture development, soil and water conservation, irrigation, flood protection and drainage, field channels in irrigation command areas, construction and improvement of village tanks and ponds, schools and dispensary buildings and work to improve village environment, hygiene and sanitation.

The wage paid to workers covered under the scheme was to be at par with the minimum agricultural wage fixed for the area. Wages were paid partly in kind (food grains) and partly in cash. The NREP continued for 9 years and created 1774.13 million and 1477.53 million man-days of employment in Sixth and Seventh Five Year Plans respectively. Researchers have found these claims about employment generation to be exaggerated.

20.7.2 Integrated Rural Development Programme

The Integrated Rural Development Programme (IRDP) , was launched in 1978-79 on a pilot basis and extended all over the country in 1980-81. This programme was a part of the poverty alleviation programmes under Sixth Five Year Plan. It was designed to (i) identify families living below poverty line in rural areas and (ii) provide assistance to acquire productive assets or appropriate skills for self-employment, which would ultimately generate enough income of beneficiaries to rise above poverty line.

The IRDP Scheme, launched in the Sixth Five Year Plan, continues till date. During Sixth Five Year Plan a sum of Rs.1500 crore was provided and banks were called upon to provide another Rs.3000 crore for the programme. It aimed to cover 15 million families. During the Seventh Five Year Plan 18.2 million families and during 1990-96 (six years) 14.7 million families were assisted. However, exact amount of employment generated has not been estimated.

20.7.3 Rural Landless Employment Guarantee Programme

The Rural Landless Employment Guarantee Programme (RLEGP) was launched on 15th August 1983. Objective of the programme was to create rural infrastructure with a view to expand employment opportunities for the rural landless. The scheme was aimed at providing guarantee of employment to at least one member of the landless households for about 100 days in a year. The programme was fully financed by the union government but its implementation was entrusted to the states. During the last two years of sixth five year plan, 260.18 million man-days of employment was generated under RLEGP. During first four years of

seventh five year plan 1154.39 million man-days of employment was generated. Despite a commendable performance compared to the targets, its restricted nature has been able to make a very marginal impact on rural unemployment.

From April 1, 1989 RLEGP was merged into Jawahar Rojgar Yojna.

20.7.4 Jawahar Rojgar Yojna

Jawahar Rojgar Yojana (JRY) was launched in the last year of the Seventh Five Year Plan, that is, February 1989. The primary objective of the programme was generation of additional employment on productive works, which would either be of sustained benefit to the poor or contribute to the creation of rural infrastructure. Union government contributes 80 per cent while states contribute 20 per cent for the scheme. Central assistance to the states is provided on the basis of portion of the rural poor in the state/union territory to the total rural poor in the country.

JRY covers all rural works, which result in creation of durable productive community assets. Preference is given to works, which benefits poorer sections. While making a choice about beneficiaries, preference is given to scheduled castes and scheduled tribes with 30 per cent reservation for woman.

In the first seven years of the JRY, 6201 million man days of employment was generated. So far as quantitative achievements in JRY are concerned, it does not seem to be much better compared to NREP and RLEGP. But qualitatively there are two important distinctions with JRY, which make it superior to NREP and RLEGP.

- 1) There is a preference for economically productive investments, especially, which enhance the productivity of land.
- 2) Panchayats are involved in planning and implementation of employment schemes.

20.7.5 Training for Rural Youth for Self Employment

Training for Rural Youth for Self Employment (TRYSEM) was initiated in 1979, with the objective of tackling unemployment problem among the rural youth. This objective was sought to be achieved by upgrading the traditional skills of rural youth belonging to families living below poverty line, with family income below Rs.3500 per year. While making selection of beneficiaries, members of scheduled castes and scheduled tribes were given preference. 9.4 lakh youths were actively trained in sixth five year plan and 4.64 lakh youth were self-employed. Among those trained, 34.8 per cent were women and 31.5 per cent belonged to the scheduled casts and scheduled tribes. During seventh five year plan 8.73 lakh rural youths from the families below poverty line were trained under this scheme. In the six year period from 1990-91 to 1995-96 this scheme has benefited 17.03 lakh rural youths.

Check Your Progress 6

- 1) Give a critical overview of the unemployment eradication schemes adopted in India.

20.8 LET US SUM UP

As the forgoing discussions reveal, significant efforts have been made, to attack the problem of unemployment directly. There does not seem to be much wrong in the formulation of the schemes. But in actual performance of these schemes, researchers have found that most of these programmes, which were meant to benefit the weaker sections of the society, were appropriated by the elites. This is so because, in these programmes, undue reliance is being placed on Panchayati Raj institutions, which are plagued with severe corruptions. In underdeveloped economies like India, problem of unemployment is widespread. It is found both in rural and urban areas. Slow economic growth process, increase in size of labour force, inappropriate technology and lack of manpower planning are mainly responsible for their problem. Different types of measurements are used to judge the extent of unemployment. It is of interest to look at the problem from various angles, namely education and unemployment, incidence of unemployment among females and regional dimension of unemployment.

20.9 SOME USEFUL BOOKS

Ninth Five Year Plan 1997-2002, Vol. I, Government of India, Planning Commission, New Delhi. Chapter IV, pp. 223-260.

Indian Economy, 1997, S.K. Misra and V.K. Puri, Himalaya Publishing House. Chapter: 9, pp. 147 -168.

M.L. Dentwala, 1993, Understanding Poverty and Unemployment in Indian Economy Since Independence (ed.) Uma Kapila, Academic Foundation, Delhi, pp.358 to 379.

Indian Economy, 1997 Ruddar Dutt and KPM Sundharam Chapter: 24, pp. 368-396.

20.10 KEY WORDS

Blue Collar Unemployment: Unemployment among skilled/unskilled manual labour.

Disguised Unemployment: A kind of unemployment found in underdeveloped countries. In the situation of disguised unemployment while work is available for less number of persons, more workers are working. Thus, even if some labourers are withdrawn from the work, total output will not reduce, provided the remaining workers work to their full capacity.

Elasticity of Employment: A measure of degree of responsiveness of employment to the changes in income/output. Elasticity may be measured as follows:

$$E = \frac{\% \text{ change in employment}}{\% \text{ change in output}}$$

Manpower Planning: An assessment of needs of the society, and developing human resources accordingly.

Main Worker: If a person is employed for 183 days in any particular year, he/she is considered to be a main worker.

Person Weeks: A person is considered to be working (that is employed) if while pursuing a gainful occupation, he has worked even for one hour on any one day during the week proceeding the date of the survey.

Person Days: The activity of the respondent is recorded for each day (in fact for each half-day) of the reference week and for working out the rate of unemployed person days, the aggregated count of unemployed days during the reference week constitutes the numerator and aggregated estimate of the total number of labour force constitutes the denominator.

White Collar Unemployment: unemployment among educated persons.

20.11 ANSWER/ HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) Voluntary unemployment is characterised by a situation when people are either not interested in any gainful employment, or are willing to work only at a wage rate higher than that prevailing in the labour market.
- 2) Involuntary unemployment is characterised by a situation in which people are prepared to work at prevailing wage rate but they are not able to get employment.
- 3) In developed economies, unemployment, which is cyclical in nature, is caused basically due to lack of effective demand and frictional unemployment because of shift to a new technology. On the other hand, in underdeveloped economies the demand for labour is less due to general backwardness in agriculture, industry and service sectors. All this unemployment is involuntary but is much different from unemployment found in developed countries.

Check Your Progress 2

- 1) i) Seasonal
ii) Chronic disguised unemployment
- 2) Refer relevant page of Sub-section 20.3.1
- 3) i) unemployment among unskilled industrial (blue collar) workers
ii) unemployment among educated persons (white collar)
iii) Students etc. seeking jobs on part time basis.
iv) (for details refer Sub-section 20.3.2) unemployment

Check Your Progress 3

- 1) Slow economic growth process
- 2) Increase in labour force
- 3) Inappropriate technology

UNIT 21 INDUSTRIAL RELATIONS

Structure

- 21.0 Objectives
- 21.1 Concept and Meaning of Industrial Relations
- 21.2 Industrial Relations: Need and Importance
- 21.3 Principal Parties in Industrial Relations in India
 - 21.3.1 Trade Unions
 - 21.3.2 Employers' Association
 - 21.3.3 State
- 21.4 Industrial Disputes in India
 - 21.4.1 Trends in Industrial Disputes
 - 21.4.2 Industrial Relations in Public and Private Sectors
- 21.5 Settlement of Industrial Disputes
 - 21.5.1 Prevention of Disputes
 - 21.5.2 Settlement of Disputes
- 21.6 Collective Bargaining
 - 21.6.1 Nature of Collective Bargaining
 - 21.6.2 Status of Collective Bargaining in India
- 21.7 Workers' Participation in Management
 - 21.7.1 Objectives of WPM
 - 21.7.2 Pre-requisites for the Success of WPM
 - 21.7.3 WPM in India
 - 21.7.4 Arrangements for WPM
- 21.8 Economic Reforms and Difficulties in Industrial Relations
- 21.9 Let Us Sum Up
- 21.10 Key Words
- 21.11 Some Useful Books
- 21.12 Answers to Check Your Progress Exercises

21.0 OBJECTIVES

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

- 1 The meaning of industrial relations and its importance;
- 1 Principal parties in industrial relations;
- 1 Trend of industrial disputes;
- 1 The settlement machinery for industrial disputes;
- 1 Collective bargaining and workers' participation in management; and
- 1 The changes in industrial relations due to economic reforms.

21.1 CONCEPT AND MEANING OF INDUSTRIAL RELATIONS

Industrial relations mean the relationship between the worker on the one hand and his/her employer on the other. Workers offer their services for wages. But their performance depends upon the environment provided during the work, i.e., the conditions of work other than the wages. How the management treats its workers and how workers work in the interest of their employers is the essence of industrial relations. In most industrial units in the modern organised industries,

workers organise themselves into unions and use their common interests as a force keeping them unionised. They use the unions as a means of ensuring good work environment. On the other hand, employers may also like to help in improving the work-environment so long as the cost of improvements in the environment result in an increase in productivity so as to compensate them for the costs incurred.

At the unit or micro level, development of an industrial unit and technological changes in it affect the working conditions. Some of the factors such as capacity expansion, may widen the opportunities of workers. Thus workers may welcome these changes and even like to promote them. Technological changes, which displace workers by machines, may raise the productivity of the workers but may also result in retrenchment. This may conflict with the interest of workers unless the technological change is also accompanied by expansion. Thus the issue of industrial relations has several aspects : (i) relations between workers and management, (ii) relations among the workers and (iii) relations between the management and the unions of workers.

21.2 INDUSTRIAL RELATIONS : NEED AND IMPORTANCE

Production is the result of joint efforts of management and workers in any producing unit. Therefore, harmonious industrial relations are essential for achieving the targets of production and enhancing the productivity. In the absence of good relations, industrial conflicts surface and affect adversely all sections of the society. Other consequences of bad industrial relations are : work stoppage and impoverishment of the workers and retrenchment. Management faces loss due to stoppage of production, rise in cost of production and damages of machines and equipments. Disruption in the production activities lowers the national income. It also causes decline in the Government revenue through lower collection of excise and corporate income taxes, hike in administrative expenses for maintaining law and order and for controlling the criminal activities during the period of industrial conflict. In words of Prof. Pigou, "On the one hand by impoverishing the people actually involved in the stoppage, it lessens the demand for goods the other industries make, on the other hand, if the industries furnish a commodity or service largely used in the conduct of other industries, it lessens the supply to them of raw material or equipment for their work."

India needed at the time of Independence rapid development of industries. It continues to need that. Accelerated development of industries, diversification of industrial structure as well as shifts in the technology and scientific base of industrial production depend importantly on the work-environment provided to the workers. For continued and accelerated development of industries, resources must be efficiently used. Productivity must persistently rise. Industrial growth must proceed over time in a stable manner. All this is heavily dependent upon industrial peace and harmonious labour management relationship.

The industrial scene in India has changed perceptibly during the last five decades. The management has developed as an entirely separate profession. Technological changes have taken place. These technological changes have created problems such as :

- a) redundancy of present employment, and
- b) adjustments of the present work force to the skill requirement.

Foreign capital is coming to India both in the form of collaboration with leading domestic industrial houses and in the form of their own subsidiary companies. This has had an impact over labour in so far as ‘these foreign interests brought with them new currents in managerial practice and introduced new standards of rewarding and handling labour.’ Further, the new economic reforms pursued since July, 1991 have also affected the working environment and industrial relations in different ways. We will come to this aspect later on in this Unit.

In the light of the above, it is desirable for us to know the nature of industrial disputes that have taken place in India, settlement machinery for industrial disputes, collective bargaining, workers’ participation in management and the problems of industrial relations in post economic reforms period.

Check Your Progress 1

- 1) What type of industrial relations help in promoting growth and higher productivity?

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- 2) How does industrial conflict affect the workers?

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- 3) What do we mean by industrial relations?

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21.3 PRINCIPAL PARTIES IN THE INDUSTRIAL RELATIONS IN INDIA

There are two principal parties in industrial relations :

- a) trade unions
- b) employers' associations

Besides the two main parties in industrial relations, namely, employers or their associations, workers or their unions, Government plays an important role in (i) protecting the interests of workers, and (ii) helping to resolve the conflicts whenever they arise.

21.3.1 Trade Unions

Trade union movement in India is over a century old. Growth of trade unions received a fillip after the adoption of the Constitution of India, which extended the right to form association to all citizens subject to the interest of public order. These trade unions protect the interest of their members through a number of functions that they perform.

In the early 1990s around 9 per cent of the total working population was organised. In 1990, the number of trade unions was 52,016 having 61,81,000 members. This number is more than 10 times the number in 1951. The degree of unionisation is very high at over 90 per cent in the public sector and it is less in private sector particularly in small and medium scale units. Only one-fifth registered unions are affiliated to one or the other ten major trade union federations at the national level.

There have been several weaknesses in working of trade unions in India. The labour movement in India has been fragmented on ideological basis. Various trade union federations have been formed on political party line. All India Trade Union Congress (AITUC) has been completely under the control of the Communists since Independence. Indian National Trade Union Congress (INTUC) has been associated with Congress party. Split in AITUC led to form Hind Mazdoor Sabha (HMS) by the socialists. Another split in HMS took place by forming United Trade Union Congress(UTUC) by non-communists Marxist group. In 1955, Jan Sangh party formed Bhartiya Mazdoor Sangh (BMS). The split in the communists divided the AITUC further leading to the emergence of Center of Indian Trade Unions (CITU) in 1970. Regional federations affiliated to regional political parties such as DMK and AIDMK in Tamil Nadu and Shiv Sena in Maharashtra have also emerged. Thus, the fragmentation of the labour movement on political line has caused disunity and weakened the trade union movement. Due to lack of any statutory provision for recognition of trade union by the employer, several trade unions are formed at the same work place and compete for the loyalty of the same body of workers and their rivalry is usually bitter and sometimes violent. It is difficult even to say how many trade unions operate at the national level since many are not affiliated to any all India federation. Much of the recent fragmentation, however, has centered on personalities and occasionally on caste or regional considerations.

Apart from the low membership coverage and fragmentation of trade unions, decline in memberships, growing alienation between trade unions and members are other main weaknesses of trade unions. Due to changing characteristics of the new work force, new pattern of shifting from unions at regional or industry level to unions at enterprise level is emerging.

Trade unions are in a dilemma today. They do not like the entry of multinationals but are attracted by the relatively higher emoluments and fringe benefits they offer. They favour the growth of small industry but do not like the work of the large units being contracted out to ancillary small-scale industries. Similarly, unions resist closure of sick units but can hardly defend their being worked indefinitely as loosing enterprises. They highlight the adverse effects of structural adjustment on employment and working conditions but do not oppose reforms.

21.3.2 Employers' Association

On all India basis there are three employers' associations :

- 1 All India Organisation of Employers (AIOE) founded by the FICCI, New Delhi.
- 1 Employers' Federation of India (EFI) founded by the ASSOCHAM in Bombay.
- 1 Standing Conference of Public Enterprises (SCOPE) in New Delhi set up by central public sector undertakings.

These three have formed into a loosely federated umbrella organisation called the Council of Indian Employers (CIE) for the purpose of relations with the Government and the international organisations like ILO. Besides these three organisations, there is a fourth organisation called the All India Manufacturers' Organisation (AIMO) which mainly represents the interests of small and medium scale enterprises in the private sector. Fifth is the Confederation of Indian Industry (CII). Both these organisations have been accorded representation separately by Ministry of Labour in various tripartite forums including Indian Labour Conference and International Labour Conference.

The individual and association members of AIOE are less than 160 and that of EFI is less than 240. The SCOPE has a membership of nearly 95 per cent of the central public sector undertakings.

21.3.3 State

The State is the third main element, which has a vital role in industrial relations to protect the interest of workers and to ensure industrial peace. It has enacted an extensive legislative system. Three important pieces of legislation have played a major role in shaping Indian industrial relations. These Acts are : Indian Trade Unions Act, 1926, Industrial Employment (Standing Orders) Act, 1946, and Industrial Disputes Act, 1947.

The Trade Unions Act, 1926, confers on unions the basic minimum legality without which they could be construed to be unlawful associations. Under this Law, any seven workers may form a trade union and seek registration with the Registrar of Trade Unions. The Act protects registered unions from civil and criminal proceedings arising out of the conduct of trade union disputes.

The Industrial Disputes Act, 1947 is a crucial piece of legislation, which aims at the speedy resolution of any conflict between labour and management through – conciliation, arbitration and adjudication. Under this Act, 14 days' notice is required to be given before a strike or lockout is declared in any industry. We will take up this part in much detail in Section 21.5 of this Unit.

Under the Industrial Employment (Standing Orders) Act, 1946, every establishment employing a hundred or more workers is required to have a set of certified standing orders defining the conditions of employment. These standing orders relate to the classification of workers, shifts, attendance, discipline, termination of employment and grievance procedure. All these must confirm reasonable measure to model standing orders framed by the Government. The purpose of the Act is to ensure that the conditions under which the workers are employed conform to certain minimum standard.

The government has also taken steps to regulate the working conditions of the workers through several legislative measures covering specifically the conditions of work of industrial workers in different areas. For instance, the Factories Act, 1948 regulates service and working conditions of workers in all the industrial establishments employing ten or more workers where power is used and twenty or more workmen in all other types of industrial establishments. The Act deals with the basic minimum facilities relating to health, safety and welfare of workers. Similarly, Employees State Insurance Act, 1948, Payment of Bonus Act, 1965, etc., are examples of legislative measures to regulate the conditions in various industrial establishments. Industrial Disputes (Banking and Insurance) Act, 1949, Shops and Establishment Act of various States' etc. are illustrations of industry-specific measures.

Apart from above, many measures have been taken to protect the interest of unorganised workers, which constitute about 91.5 per cent of labourers. These include : Minimum Wages Act, 1948, Bonded Labour System (Abolition) Act, 1976, Equal Remuneration Act, 1976, Child Labour Prohibition and Regulation Act, 1986. Under Minimum Wages Act, 1948, State Governments and Central Government notify minimum wages for various categories of labourers. Plantation Labour Act, 1951 provides certain basic facilities to plantation workers. Bonded Labour System (Abolition) Act, 1976 seeks to abolish the bonded labour system and to free labourers who have incurred a bonded debt and hence perform bonded or forced labour or service without any wages at all, or for nominal wages. Other important measures, which have direct bearing on unorganised labourers, are : Kerala Agricultural Workers Act, 1974, various Pension Schemes by different states. Keeping in view that economic reforms since 1991 may help the growth of the corporate sector but would not be able to reduce the number of unorganised workers in the foreseeable future, state's role for amelioration of the working conditions of unorganised labour is crucial and necessary.

21.4 INDUSTRIAL DISPUTES IN INDIA

The interests of labour and management to a large extent are opposed to each other. They conflict with each other over a number of issues arising out of their daily work. Apart from wages and working conditions, disagreements arise on issues like - job assignments, work methods, safety, retrenchment, participation in decision making and so on. From workers' side, resentment and dissatisfaction is expressed through strikes, boycott, sabotage, go-slow, intentional wastage of time and material etc. Similarly dissatisfaction is manifested by the employers through lockouts, lay off, autocratic suspension and dismissals.

While in India both the parties (workers and management) take recourse to above forms of measures to settle disputes, generally conflict is equated with strikes and lockouts and data are available only on these two categories of

conflicts. We, therefore, will discuss industrial disputes broadly on the basis of strikes and lockouts.

21.4.1 Trends in Industrial Disputes

There has been a growing trend in terms of workers involved and maydays lost in industrial disputes. On the basis of nature of industrial disputes, maydays lost due to strikes and lockouts and employers' militancy, the industrial disputes over a period of four and half decades can be studied into three sub periods :

- i) Upto 1975,
- ii) 1976 - 80,
- iii) 1980 - 94.

Period I (Upto 1975)

There has been a growing trend in terms of workers involved and maydays lost in industrial disputes. The total maydays lost increased from 38 lakh in 1951 to 49 lakh in 1961, 165 lakh in 1971 and 402 lakh in 1974. Strikes have dominated the industrial disputes during this period and are the main cause of loss in maydays. During 1961-75 the number of maydays lost due to strikes varied in the range of 60 to 84 per cent of the total maydays lost. Against this the share of lockouts had ranged from 16 to 40 per cent.

The intensity of strikes was also higher in relation to lockouts during this period when the intensity of strike or lockout is judged in terms of

- a) number of workers involved,
- b) the duration of strike or lockout,
- c) the number of maydays lost per dispute in a strike or lockout.

The data revealed (Table 21.1) that during 1961-75 the average number of days a worker was involved in strikes was 88 against 28 days in lockouts. Thus, the intensity of strike was 3 times higher than that of lockout during 1961-75.

Period II (1976-80)

With the declaration of emergency in 1975, due to promulgation of Maintenance of Internal Security Act (MISA) and Defence of India Rules (DIR), industrial disputes declined. Employers' militancy over labourers increased and the percentage of maydays lost due to lockouts increased from 16.4 per cent in 1974 to 23.7 per cent in 1975 and 78 per cent in 1976. On the other hand, maydays lost due to strikes declined from 83.6 per cent in 1974 to 76.3% in 1975 and 22% in 1976.

The situation changed during 1977 to 1979 during Janata Party regime. The maydays lost due to strikes increased during this period. In relative terms strikes accounted for 82 per cent of total loss of maydays while lockouts accounted for merely 18 per cent.

Period III (1980 - 1997)

Since 1980 particularly after 1984-85 a shift in the nature of industrial disputes

is evident. Lockouts in relation to strikes are occupying a pre-dominant position.

After introducing economic reforms in July 1991 preference has been given to the private sector in the industrial development of India. Private sector has been given many incentives for faster growth and higher productivity. During this period the share of lockouts began to rise and reached a level of 72.3 per cent in 1993. The share of strikes in man-days lost declined from 48.4 per cent in 1992 to 27.7 per cent in 1993 and then slightly improved to 33.7 per cent in 1997.

Taking the 7-year period of reforms into account the share of strikes in man-days lost was of the order of about 39 per cent against the lockout's share of 61 per cent. This implies that during the economic reforms period there is a relative decline in the advantage, which employees were enjoying earlier in pressuring their demands.

Table 21.1: Comparison of workers involved and mandays involved and lost in strikes and lockout

Year	Number of Disputes			Number of Workers Involved (000's)		
	Strikes	Lockouts	Total	Strikes	Lockouts	Total
1961-75	32,304 (89.2)	3910 (10.8)	36214 (100.0)	19620 (89.6)	2274 (10.4)	21984 (100.0)
1976-90	25,324 (83.0)	5188 (17.0)	30512 (100.0)	18626 (85.6)	3144 (14.4)	21770 (100.0)
1991-97	5769 (64.44)	3184 (35.56)	8953 (100.0)	27856 (65.34)	14773 (34.66)	42629 (100.0)

Source: i) upto 1976-90 data are from Lockouts, Closures and the Role of State by Prof. Ruddar Datt.

ii) Figures for 1991-97 has been compiled from Indian Labour Yearbook (1995) and Annual Reports of the Ministry of Labour.

21.4.2 Industrial Relations in the Public and Private Sectors

i) Proportion of workers involved in Industrial Disputes

After 1973, the total workers involved in Industrial disputes have shown a declining trend both in the public and in the private sectors. During 1978 to 1986 the percentage of workers involved in industrial disputes was much lower in the public sector than in private sector (except 1983 where the proportion of workers was marginally higher in public sector). After 1986, this trend has reversed and the proportion of workers involved in industrial disputes in the public sector is much higher than in private sector.

ii) Number of maydays lost and the average number of workers involved per dispute

Since 1973, the share of public sector in the number of maydays lost has persistently been lower than that of the private sector. In 1995, it was as low as around 25%

for public sector and 75% in the private sector.

Though the number of maydays lost in the public sector is much lower than the private sector, the average number of workers involved per dispute is more in the public sector than in the private sector. Owing to organization of bigger activities in public sector undertakings (like - insurance, railways, P & T departments) the size of work force employed in PSUs is also large. Hence a large number of workers are affected by strikes.

iii) **Average Number of maydays lost per worker**

In public sector, average number of maydays lost per worker has been much less than the private sector. Less time is required to resolve the dispute in public sector than in private sector. This is due to the difference in attitude and thinking of the private sector. The industrialists in private sector feel that any increase in wages, bonus or perks directly affects their profit. This results in prolonged negotiations. Against this, the Government agrees to the demands of workers in public sector since continuance of strike affects large segments of the economy, as the public sector covers the infrastructure industries.

It emerges from the above discussion that larger number of disputes take place in the private sector. The intensity of disputes that have taken place in private sector is greater in terms of both maydays lost and the average number of days a worker is involved in the disputes. The machinery of settlement is brought into action much more swiftly in the public sector than in the private sector.

Check Your Progress 2

1) Give three examples each of trade union federation and employers' association.

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2) Enumerate three major weaknesses of trade unions in India.

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3) What is the difference in the nature of industrial disputes during the period upto 1975 and 1980-94 ?

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4) Tick the correct statement .

The rising share of industrial disputes due to lockouts reflect

- a) employers' militancy
- b) workers' militancy
- c) state's militancy

21.5 SETTLEMENT OF INDUSTRIAL DISPUTES

There are two components to settlements of industrial disputes :

(i) prevention and (ii) settlement. Under prevention of disputes, arrangements are made so that differences do not take the form of strikes or lockouts. In case of settlements, arrangements are made to settle the disputes between the management and the workers.

21.5.1 Prevention of Disputes

For prevention of disputes and harmonious industrial relations, consultative machinery has been provided at three levels : national level, industry level and enterprise level.

a) **Tripartite consultations** : At the national level, tripartite consultations have been provided through Indian Labour Conference (ILC) and Standing Labour Conference (SLC). There are 44 tripartite committees at the national level. The objectives of these tripartite committees are to :

- 1 promote uniformity in labour legislation
- 1 lay down procedure for the settlement of industrial disputes
- 1 discuss all matters of all India importance as between employers and employees.

The implementation part of the recommendations made by the tripartite bodies is weak. Sometimes even the unanimous recommendations are not accepted by the Government. By 1970s tripartite meetings became rare and during 1980s, several of the national federations of trade unions were boycotting the tripartite meetings on several occasions.

b) **Consultation at company and shop floor level** : Since Independence, various schemes have been formulated to provide for employees participation/consultation at company and shop floor level; these include :

- i) **Works Committees, 1947** : The Industrial Disputes Act, 1947 provides limited participation of elected representatives of workers in bipartite works committees. The objective behind setting up of the works committees is to promote measures for securing and preserving amity and good relations between employers and employees. However, the functioning of these committees is not satisfactory.
- ii) **Joint Management Council (JMC), 1958** : JMCs were set up in 1958. These were supposed to have administrative responsibilities for various matters relating to welfare, safety, vocational training and preparation of holiday schedules. These were also to be consulted on various matters like changes in work practices, amendment/formulation of various standing orders, rationalisation, productivity etc. JMCs did not receive much support either from the unions or from the management due to multiplicity of bipartite consultative bodies.

21.5.2 Settlement of Disputes

For settlement of labour management disputes there are quite a few settlement machinery. These are :

- a) **Conciliation Officers** : The Government appoints conciliation officers for particular regions and industries. These officers bring both the parties together and help them to resolve their differences. If the dispute is settled through their good offices and a settlement is reached, the report to this effect is sent to the Government. In case of failure in settling the dispute, the officer informs the Government narrating steps taken and the reasons for its failure.
- b) **Board of Conciliation** : The government may appoint a Board of Conciliation to look into any industrial dispute referred by it. The Board consists of a Chairman and two to four persons — representing the employers and workers. The Chairman is an independent person. The Board reports to the Government about the success or failure of its efforts including the steps taken and the reasons for its failures to bring about a settlement.
- c) **Court of Enquiry** : Whenever an industrial dispute is not settled by the conciliation officers or by the Board of Conciliation, the matter is referred to a court of enquiry. The court investigates the whole matter and submits its report to the Government. Afterwards the case is referred to an Industrial Tribunal for adjudication.
- d) **Labour Courts** : State Governments have set up labour courts to go into the matters like disputed orders of the employers, dismissals and suspensions of employees by the management, the legality of strikes, lockouts, etc. The labour courts are expected to decide the matters speedily.
- e) **Industrial Tribunals** : Industrial Tribunals are two types— State Tribunals and National Tribunals. State Tribunals are appointed by state governments for adjudication of disputes relating to wages, bonus, etc. National Tribunal is appointed by the Central Government for adjudication of industrial disputes of

national importance that affect industrial establishments located in more than one state. The adjudication of the State and National tribunals are binding on the parties concerned.

Apart from the above system of settling disputes, the following practices are becoming common in recent years:

- a) **Code of Discipline** : In 1958, the Indian Labour Conference evolved a code of discipline in industry. Under this code, employers and workers voluntarily agree to maintain and create an atmosphere of mutual trust and cooperation in the factory and to settle all disputes and grievances by mutual negotiations, conciliations and voluntary arbitration and avoid resort to direct action.
- b) **Industrial Truce** : A joint meeting of the central organisation of employers and workers adopted an Industrial Truce Resolution in November, 1962. It was agreed upon by the employers and the workers that during an emergency in the country, interruption or slowing down of production will be avoided and efforts will be made to maximise the production.

During the period 1988-92, out of the total 19,774 industrial disputes, 8,478 (42.5%) were resolved by mutual settlement and 3,501 (31%) by Government intervention, either through adjudication or arbitration. About 22% of the disputes were considered unfit for adjudication.

- c) **National Arbitration Promotion Board** : The Board was set up in July, 1967 by the Government to promote voluntary arbitration to settle industrial disputes. The Board attempts to ensure that employers and workers take greater recourse to the voluntary approach to settle industrial disputes.

Check Your Progress 3

- 1) Choose the correct answer among the alternatives given below :
 - a) The type of the role played by State in Industrial Relations in India has been
 - i) Regulatory in nature
 - ii) Supportive in nature
 - iii) Indifferent in nature.

2) What are the main objectives of tripartite consultations?
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.....
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3) What are the major components of disputes settlement machinery in India?
.....
.....

21.6 COLLECTIVE BARGAINING

Collective bargaining is the procedure by which employer(s) and a group of employees agree upon the conditions of work. It is a process of joint decision-making and basically represents a democratic way of life in industry. It helps in establishing industrial peace without disrupting the production activities.

Conditions for the success of collective bargaining :

- 1 Strong democratic union
- 1 employer's recognition to trade unions
- 1 bargaining in good faith
- 1 mutual acceptance of the agreements by employers and employees.

21.6.1 Nature of Collective Bargaining

Collective bargaining can be at national level or industry level or plant level.

Industry Level : Industry level bargaining is common in core industries, which are concentrated in the public sector. These include coal, steel, banks, insurance, ports, etc.

Industry-cum-region level : Bargaining at this level occurs in the industries where private sector dominates. These include mainly textiles, plantations and engineering.

Plant level : In multiplants, bargaining occurs in two stages. Basic wage rates and some benefits are decided at the company levels. Certain allowances and incentives are negotiated at plant level. Usually countrywide agreements are supplemented with plant level agreements.

Subjects : Wages and working conditions have been the domain of collective bargaining. However, over the years everything from recruitment to retirement and post retirement benefits have become part and parcel of the agreements.

Duration : Upto mid-20s, wage agreements used to be for a period of three years. In the mid-80s several agreements were signed for four years. In 1990s, the government mandated them to be for a period of five years.

21.6.2 The Status of Collective Bargaining in India

In India collective bargaining has been limited to national federations of trade unions and employers' organizations. From employer's side we have small nucleus industrial associations like - Ahmedabad Mill Owners' Associations, Bombay Mill Owners' Associations, Indian Sugar Mills Association, Indian Paper Mills Association, etc. In some industrial centres, both trade unions and employers have set up coordination committees to adopt collective strategy in collective bargaining matters.

Due to large number of unions in multi-plant companies, bargaining has become coercive than collective. In public sector, in the name of uniformity, bargaining has become competitive.

In recent years due to economic crisis and the need to improve the level of productivity, there have been several innovative approaches in collective bargaining. For example, in order to survive the ailing firms and to ensure job-security, unions and managements have been agreeing for a variety of concessions including wage and employment cuts, wage freeze, moratorium on strikes and other trade union actions, changes in work practices, flexible deployment of work forces, etc. In the process, some trade unions have also been able to get the commitment from the employers to regularise the services of those who remain casual labour for several years. Firms are re-structuring without unions' involvement through one or more of the strategies. A number of firms have entered into re-structuring agreements such as :

- 1) transfer of jobs from the bargaining category to general category,
- 2) ban on recruitment,
- 3) transfer of production to subcontracted units,
- 4) introduction of parallel production
- 5) transfer of permanent jobs to contract, casual, and temporary workers,
- 6) introduction of voluntary retirement schemes,
- 7) flexibility and productivity,
- 8) automation,
- 9) management proposals in negotiating pay revisions,
- 10) closures/sale of business, and
- 11) shop floor restructuring.

Unusual and unconventional clauses are incorporated in collective agreements. Such clauses include : age discrimination, gender discrimination in the definition of dependents, linking dearness allowances to productivity, voluntary retirement schemes to contract labour, sub-contracting, two-tier wage systems, etc.

21.7 WORKERS' PARTICIPATION IN MANAGEMENT (WPM)

In a wider sense, workers' participation in management refers to a process in which employees have some role in decision-making of the organisation they work in.

21.7.1 Objectives of WPM

The broad underlying objectives of WPM are:

- 1) To motivate employees towards contributing their best for successful running of the organization and make them feel as a part of it.
- 2) To bring the attitudinal change in both employees and employers towards collaboration than conflict.
- 3) To develop an approach of working 'with the strengths' rather than 'the weaknesses' of each other.

21.7.2 Pre-requisites for the Success of WPM

The following factors help in better industrial relations:

- 1 mutual trust and cooperation between the management and workers
- 1 proper industrial climate
- 1 absence of exploitation/selfish interest
- 1 sense of belonging
- 1 open communication and free flow of information both ways
- 1 attitudinal change
- 1 willingness to change the challenges/changing environment.

21.7.3 WPM in India

The idea of workers' participation in management was first visualised by Gandhiji when he said that industry was a joint venture of labour and capital in which both owners and workers were co-trustees for society. The idea of WPM was first introduced in formal sense when the need of WPM was recognised in the Second Five Year Plan. The third Plan favoured progressive extension of the WPM. The fourth Plan advocated its extension to public sector undertakings and emphasised its importance as an essential functional link in the structure of industrial relations.

The 15th and 29th session of Indian Labour Conference held in 1957 and 1990 respectively are historic when it was focused that there was a need to find a new order based on reconciling the demands for social justice and individual freedom with modern-industrial development and technology. WPM was a step in that direction.

21.7.4 Arrangements for WPM

The scheme of WPM is implemented through mutual agreements, statutory and non-statutory committees, councils and equity participations.

- i) **By Mutual Agreements :** Mutual agreements covering service conditions like wages, scale of pay, increment, recruitment policy, promotion policy, retirement policy, retirement benefits etc. are entered into between employers and trade unions.
- ii) **By Statutory Committees :** Provisions have been made under various Acts to set up committees for performing various functions. The name of such committees and the Act under which these are set up have been given below :
 - a) Works Committee - under Industrial Disputes Act, 1947
 - b) Canteen Management Committee - under Factories Act, 1948
 - c) Safety Committee - under Factories Act, 1948
 - d) Trustees in EPF Scheme - under Employees Provident Fund Act
 - e) Disciplinary Redressal Committee - under Industrial Disputes Act, 1947
- iii) **Non-statutory Participation :** Some organisations induct a few workers' representatives in their decision-making bodies. Workers are nominated at the following levels :
 - a) Board Level
 - b) Joint Management Council

- c) Plant Council
- d) Shop Council

iv) **Voluntary**

- a) shareholders (equity participation)
- b) recreational activities etc.

In spite of all these efforts, the WPM has not produced much impact on the industrial relations in the country. The underlying causes behind poor implementation of WPM are:

- 1 inter-union and intra-union rivalries and infringement of trade union rights and responsibilities
- 1 lack of free flow of information
- 1 lack of initiatives towards developing a proper work culture
- 1 the more serious drawback of the scheme of WPM in India has been that it was officially inspired and sponsored. Neither there was much pressure from the trade unions for induction of such schemes nor any initiative from the part of managements.

21.8 ECONOMIC REFORMS AND INDUSTRIAL RELATIONS

Labour market reforms are a part of the overall economic reforms package and hence there is a demand for labour market flexibility so that it can respond more efficiently to the market signals. On these lines, some countries like New Zealand and Australia have introduced reforms in labour market. However, the impact of these reforms are not very encouraging. These countries are facing high incidence of unemployment, declining real wages, and adverse balance of payment. Further, whether the economic performance of these economies have improved as a result of economic reforms is still not confirmed.

- 1) Flexibility in the labour market leads to decline in employment, deterioration in the quality of employment, rise in employment of casual, contract and female labour in place of permanent labour. It also encourages medium and large-scale factories to sub-contract part of their production to small enterprises to cut on labour costs. All these features weaken the trade unions, widen the scope for labour exploitation and hence have severe repercussions for industrial relations. Hence introducing the flexibility in the labour market in a way that increases productive employment, improves the quality of employment and avoids exploitation is really a difficult task.
- 2) To attract foreign direct investment, changes in the industrial relations system are being demanded. In this context, in some countries export-processing zones have been set up which are free of trade controls. Trade unions in these countries have been banned and wages are low. Safeguards with regard to health, safety and holidays either do not apply or are not enforced. But the study on the conditions of workers in foreign enterprises in China shows that workers have faced serious problems like postponement of wages, extension of work hours, poor standards of occupational safety and health, and non-payment of social security benefits. As a result, unionised labour

disputes and strikes have taken place frequently. Introducing the changes in the labour laws to attract the flows of foreign investments without weakening labourers' working and living conditions is really difficult.

- 3) There is a persistent demand from the employers' side to delete or amend chapter V-B of Industrial Disputes Act, 1947. This chapter denies laying off, retrenchment and closure in all undertakings employing more than 100 workers everyday for the preceding 12 months without prior approval from the Government. Here, we may recall that the strikes (by trade unions) and lockouts (by employers) are two different components of industrial disputes. The study undertaken by Prof. Ruddar Datt reveals that "..... both in magnitude and intensity, lockouts impose much more severe punishment on the working class since the maydays lost per dispute in a lockout were 16,273 during 1961-75. The loss sharply increased to 39,136 maydays during 1976-90". This is an indicator of the rising militancy of management against the workers during 80s and onwards. Various kinds of tactics like partial closure, use of retrenchment/VRS, lockouts as a means towards closure, sub-contracting, transfer of ownership etc. are resorted by the management to force retrenchment, voluntary retirement, reducing the status from regular workers to badlies, cut in wages, etc.

Keeping in view the above facts, we can say that in spite of the provisions contained in chapter V-B of Industrial Disputes Act, 1947, the workers are being rendered jobless.

In a recent move, the budget proposal for the year 2001-02 proposes to modify chapter VB of Industrial Disputes Act 1947 so as to incorporate flexibility in use of labour. It is proposed that prior permission from Government for lying off labour, retrenchment and closure may be required for industrial establishments employing not less than 1000 workers instead of 100 workers.

- 4) Recently western countries through World Trade Organisation are trying to impose the social clause on developing countries. Under social clause, they are insisting on international trade agreement that links import with conformity to labour standards. Labour standards include not engaging child labourers, observation of minimum wages, equal employment opportunities, environment, safety etc. Trade unions have been opposing these social clauses as they fear that it could be pursued as protection in trading activities and as a political weapon in global politics. If the social clause is accepted it will make the future of industrial relations very uncertain.

In brief, how can we reconcile the twin objectives of (i) enhancing productivity and overall efficiency under competitive pressures by the enterprises; (ii) ensuring the basic workers' rights? These are the real challenges and difficult tasks before the policy makers.

- 5) Weakening of trade unions : Increases in the employment of temporary, casual, contract labour and female labour in place of permanent labour creates insecurity among workers. these developments divide the workers and weaken the trade unions.
- 6) The privatisation of the public sector can also act as a tool for breaking up the

organised labour movement. When privatisation leads to job in-security, it might prevent them from participating actively in the trade union activities. So privatisation also will create division among the permanent employees and those who are on contract basis. Hence, weakening of the trade union movements will not be surprising feature of the privatisation programme.

- 7) Taking advantages of tax holidays, interest concessions, subsidies and de-licensing, the companies in private sector are relocating their production units in backwards areas. Labourers employed in such units are casual, temporary, non-unionised and on contract basis. This is adversely affecting industrial relations.
- 8) Labour-saving technologies have also resulted in distortions in the compensation structure even within the same unit for doing the same work. National federations of labourers are not interested in taking up the cases of contract and casual labourers. This is leading to fragmentation of labour movement and poor impact on industrial relations.

Check Your Progress 4

- 1) What are the pre-requisites for success of collective bargaining?

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- 2) What have been the major obstacles in the scheme of workers' participation in management?

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- 3) What are the conflicting areas in the industrial relations due to economic reforms and globalisations?

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21.9 LET US SUM UP

Generally industrial relations refer to the relationship that emerges out of day to day working and association of labour and management. With the growth of professional management and advancement in production and information technology, the scope of industrial relations has widened. There are three principal actors in industrial relations - trade unions, employers' association and government. In India upto 1975 (prior to imposition to emergency) strikes dominated industrial disputes. During emergency period (1975-76), employers' militancy increased and the maydays lost due to lockouts rose steeply. Since 1980, particularly after 1984-85 lockouts both in magnitude and intensity imposed much more severe punishments on the working class.

Large number of disputes takes place in the private sector. The intensity of disputes in terms of maydays lost, average number of days a worker involved is greater in the private sector as compared to the public sector.

There are two components of industrial disputes— prevention and settlement. For prevention of disputes, there are provisions for tripartite consultations at national level and works committees and joint management council at company and shop floor levels.

For settlement of industrial disputes, Industrial Disputes Act, 1947 provides settlement machinery comprising of conciliation officers, board of conciliation, court of enquiry, labour courts, and industrial tribunals. National Arbitration Promotion Board, code of disciplines, industrial truce are other voluntary measures for settling the disputes. Collective bargaining in India is confined to few pockets of industrial centres and many obstacles come in its operation. Workers' participation in management has also not produced much impact on industrial relations in the country. This scheme is suffering from several weaknesses such as, inter and intra union rivalries, non-settlement of union recognition and so on.

In the light of economic reforms, several difficulties have been encountered on industrial relation front. Important among these are :

- i) How to introduce flexibility in the labour market that increases productive employment and improves the quality of employment on the one hand and avoid exploitation of labour on the other?
- ii) How to introduce the changes in labour laws without weakening labourers' working and living conditions? Economic reforms and privatisation through various means weaken the trade unions and adversely affect the industrial relations.

21.10 KEY WORDS

Trade Unions: Trade unions are voluntary organisations of workers formed to promote and protect their interests by collective action.

Labour Movement: It refers to collective struggle by labourers for protecting and promoting their rights and interests.

Industrial Disputes: Industrial disputes denote work stoppages as well as those

differences between labour and management that are settled through the Industrial Relations machinery.

Tripartite Consultations: It refers to interactions among the representatives of three actors namely workers, employers and the Government.

21.11 SOME USEFUL BOOKS

Ramaswamy E.A. and U. Ramaswamy (1981) : *Industry and Labour*, Oxford University Press, Bombay, Chapter 6, 8.

Sharma A.M.(1984) : *Industrial Relations-Conceptual and Legal Framework*, Himalaya Publishing House, Delhi.

Collective Bargaining : A Workers' Educational Manual (1986), ILO.

21.12 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) Cordial industrial relations
- 2) Industrial conflict affect the workers adversely. Work stoppage leads to denial of wage payment to workers and sometimes retrenchment.
- 3) Industrial Relations refer the relationship between labour, management and their association that arises out of their day to day working.

Check Your Progress 2

- 1) Trade Union Federations
 - i) Indian National Trade Union Congress(INTUC)
 - ii) All India Trade Union Congress(AITUC)
 - iii) Bhartiya Hind Mazdoor Sabha (BMS)

Employers' Association

- i) Federation of Indian Chambers of Commerce and Industry (FICCI)
 - ii) Confederation of Indian Industries (CII)
 - iii) Council of Indian Employers (CIE)
- 2)
 - i) Low membership coverage
 - ii) Fragmentation of trade unions
 - iii) Decline in memberships.
- 3) Upto 1975 strikes dominated the industrial disputes. After 1975, the share of lockouts has increased.
- 4) a

Check Your Progress 3

- 1) (i) Regulatory in nature
- 2) See Sub-section 21.5.1
- 3) See Sub-section 21.5.2

Check Your Progress 4

- 1) Proper industrial climate, absence of exploitation/selfish interest, sense of belonging, open communication and free flow of information from both sides.
- 2) Non-settlement of union recognition issue, lack of free flow of information, lack of initiatives towards developing a proper work culture, lack of initiatives from trade unions and management.
- 3) See Section 21.8.



Indira Gandhi
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EEC-12
Indian Economic
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Block

6

LABOUR AND EMPLOYMENT

UNIT 19

Employment Structure **5**

UNIT 20

Unemployment **19**

UNIT 21

Industrial Relations **41**

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BLOCK 6 LABOUR AND EMPLOYMENT

Introduction

As you know, quality of labour force plays an important role in economic development of an economy. In this block we will discuss issues related to labour in the Indian context. The quality and quantity of labour force, its growth pattern, utilisation and ensuing problems, particularly with employers, will be the subject matter of this block.

The present block comprises three units. Unit 19 discusses the employment structure in Indian economy. In this context it delves into policy issues such as restructuring of workforce and policy agenda for the future. Unit 20 deals with the problem of unemployment of labour force. It defines unemployment, discusses types of unemployment in India and assesses government policy to reduce unemployment. Unit 21 discusses the problem in relationship between labour and employer and the mechanism prescribed by the government to solve strained relations between the two groups.

UNIT 22 ROLE OF FOREIGN TRADE IN INDIA

Structure

- 22.0 Objectives
- 22.1 Introduction
- 22.2 Role of Foreign Trade in Economic Growth
 - 22.2.1 Contribution to Growth
 - 22.2.2 Barriers to Trade
 - 22.2.3 Trade Policy
- 22.3 Analysis of the Growth of India's Foreign Trade
 - 22.3.1 Volume of Trade
 - 22.3.2 Composition of Trade
 - 22.3.3 Direction of Trade
- 22.4 Volume of India's Foreign Trade
 - 22.4.1 Value of Exports
 - 22.4.2 Causes of Slow Growth of Exports
 - 22.4.3 Value of Imports
- 22.5 Trade Deficits and Terms of Trade
- 22.6 Composition of India's Foreign Trade
 - 22.6.1 Composition of Exports
 - 22.6.2 Composition of Imports
- 22.7 Direction of India's Foreign Trade
 - 22.7.1 Direction of Exports
 - 22.7.2 Direction of Imports
 - 22.7.3 Diversification or Concentration
- 22.8 Let Us Sum Up
- 22.9 Key Words
- 22.10 Some Useful Books
- 22.11 Answers/Hints to Check Your Progress Exercises

22.0 OBJECTIVES

This unit is the first in this block of three units that deal with India's foreign trade. It describes the role of foreign trade in growth, and discusses the composition, volume, direction and growth of India's foreign trade.

After going through this unit you should be able to :

- 1 Discuss the role of foreign trade in a country's economic development;
- 1 Describe the effect of economic growth on a country's structure of foreign trade;
- 1 Explain the relationship between national income and exports, and national income and imports;
- 1 Comment on the changing composition of India's exports and imports;
- 1 Examine the changing character of India's trading partners; and
- 1 Evaluate the changing structure of India's foreign trade.

22.1 INTRODUCTION

Modern day economies are all open economies; i.e., every country cultivates and promotes economic relations with the rest-of-the-world. Economic isolation and self-sufficiency are things of the past; instead global division of labour is the rule. In face of on-going Information-Technology revolution the world is becoming only a global village. This again underlines the fact that the economic welfare of a country depends as much upon the external environment that a country faces as

upon domestic policy changes. A major component of the external sector is foreign trade. We begin the present unit with an understanding of the role of foreign trade in a country's economic growth. We will also examine subsequently in the same unit the changing structure of India's foreign trade and its implications for India's growth process.

22.2 ROLE OF FOREIGN TRADE IN ECONOMIC GROWTH

Foreign trade has worked as an “engine of growth” in the past (Witness Great Britain in the 19th Century and Japan in the 20th, besides others), and even in more recent times, *the outward Oriented growth Strategy*, adopted by the Newly Industrialising Economies of Asia, Viz. Hong Kong, Singapore, Taiwan and South Korea, has enabled them to overcome the resource constraints of small resource-poor underdeveloped economies.

22.2.1 Contribution to Growth

Foreign trade contributes to economic development in a number of ways:

First, foreign trade explores means of procuring imports of capital goods, without which no process of development can start.

Secondly, it provides for free flow of technology, which allows for increases in total factor productivity, and some short run multiplier effects for countries with unemployed labour.

Thirdly, foreign trade generates pressure for dynamic change through (a) competitive pressure from imports, (b) pressure of competing for export markets and (c) a better allocation of resources.

Fourthly, exports allow fuller utilisation of capacity, increased exploitation of economies of scale, separation of production patterns from domestic demand, and increasing familiarity with absorption of new technologies.

Fifthly, foreign trade increases domestic workers' welfare. It does so at least in three ways: (a) larger exports translate into higher wages; (b) since workers are also consumers, trade brings them immediate gains through cheaper imports; and (c) foreign trade enables most workers to become more productive as the goods they produce increase in value.

Finally, increased openness to trade has been strongly associated with the reduction of poverty in most developing countries.

22.2.2 Barriers to Trade

As seen above, foreign trade can make manifold contributions to growth. However, most of the non-oil-producing developing countries, including India, are finding themselves face to face with a number of difficulties on the foreign trade as an “engine of growth”. Among these we may specifically mention the following:

Firstly, the demand for primary commodities, which form the principal exports of a developing economy, has not kept pace with the growth of world trade or with income levels in different countries. The world trade in primary commodities has been declining for the last four and a half decades. Primary commodities formed more than 50 per cent of the total exports of the world in the year 1955. This share

came down to 35 per cent in 1977 and further 25 per cent in 1998. Four possible factors can explain the phenomenon of the fall in world trade in primary commodities: (a) the increasing tendency of the market economies to protect their agriculture by imposing tariffs and non-tariff barriers (NTBs, the insistence on 'eco-labelling' or similarly the proposed German ban on the use of harmful chemicals in textile goods, are the latest instances); (b) an inadequate increase in demand for primary commodities in the developed market economies in the wake of industrialisation; (c) development of synthetic substitutes; and (d) developed country population growth rates are now at or near the replacement level so that little expansion can be expected from this source.

Secondly, exports of developing economies as a group have been slow to develop. As a result, the share of developing economies in the total world trade has maintained a downward trend. Thus, whereas this share was as high as 31 per cent in 1950, it came down to 14 per cent in 1960 and further to 4.2 per cent in 1993. This decline has been caused by factors like the emergence of trade blocs, restrictive commercial policies and the growth of monopolies. These trends are indicative of the fact that the developing economies have to face foreign trade as a barrier, to overcome, which they may require concerted efforts.

Thirdly, the declining demand for primary products in the developed markets has given rise to the problem of worsening terms of trade of the developing economies. Whereas prices of manufactured goods, especially capital goods, have been rising in the world markets, there has been a tendency for a gradual fall in prices of primary goods. For example, according to a recent UN report, in the past developing countries could get a tractor by exporting two tones sugar, now they have to export seven tones of sugar to get the same tractor. Similarly, according to another estimate 1 to 3 per cent of the GNP was lost by the developing countries due to decreasing prices of non-oil raw materials during the 1980s. Any adverse foreign trade price change works as check on economic development.

Finally, restrictive trade policies adopted by industrialised countries affect prospects for developing country exports of manufactures. Industrialised countries themselves have been faced with serious adjustment problems as a consequence of increased globalisation. Their reaction to this development has taken the form of their insistence on "fair" trade. It is a major development that tends to make it more difficult for developing countries to pull their income levels up by relying to a great extent on international trade and foreign investment.

In short, developing economies face many difficulties in their foreign trade operations. The numerous multilateral initiatives, which have been mounted to tackle these problems, have left them largely unresolved. Therefore, in the given circumstances the developing economies have to evolve a suitable trade policy-mix that may create export outlets and as well may assure supplies of essential imports.

22.2.3 Trade Policy

The term trade policy refers to all the policies that have either direct or indirect bearing on the trade behaviour of a country. The details of the various policies depend upon the broad trade strategy adopted in the country; the trade strategy, in turn, depends upon the broad strategy of development adopted by the planners. For example, if the development strategy is one of giving relatively greater emphasis on development of industry rather than of agriculture, then the trade strategy should be suitably adopted to this development strategy. Two broad types of trade strategies discussed in the literature are the following: (a) inward-oriented strategy, and (b) outward-oriented strategy.

External Sector

Inward orientation is often identified with protectionism and import substitution; outward orientation with free trade and exports promotion. However, in a broader framework, inward-looking and outward-looking strategies may be defined to encompass wider range of activities than mere trade in goods. Inward-looking strategy may then refer to all the policies, which discourage reliance on foreign resources. Under this strategy, in its extreme form, no foreign aid is permissible, no movement of factors of production to or from outside, no multi-national corporation and no freedom in international communication. Such a strategy in some form was in vogue in Russia during its Iron-Curtain Age immediately after the Second World War. However, in the present world economy, such an extreme form of inward-orientation hardly exists in any country. The opposite of this extreme form of inward-orientation is the form of outward-orientation in which free movement of capital, labour goods, multinational enterprises, open communication of inward and outward orientation in different degrees are observed.

Advocates of outward-orientation argue that openness is useful to bring about good educational effects, new ideas and new techniques, growth of new form of organisation, etc. They believe that free trading encourages learning by trade and implies achievements of dynamic transformation of the economy into higher standards of living.

Quotas and other quantitative restrictions on the other hand, interfere with the price mechanism, involve allocative and X-inefficiencies (e.g. failure to minimise costs) create distortions and impede the progress of competitive firms and industries.

As against these arguments the advocates of inward-orientation plead that inward-looking policies encourage, indigenous talent, learning to do things by oneself, domestic technological development and suitable range of products, avoiding all the ill-effects of demonstration from the outside world. Given gaps of development between the developing and the developed countries, inward-orientation is advocated as an inevitable policy. Effects of these two types of strategies on growth of output, employment, income generation and income inequalities could also be of diverse nature, and no general inference can be drawn in this context.

Check Your Progress 1

- 1) Mention four advantages of foreign trade to a developing economy.

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- 2) Mention four barriers to trade.

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- 3) Define the following:
- i) Inward-oriented strategy
 - ii) Outward-oriented strategy
 - iii) Quotas
 - iv) Quantitative Restrictions
- 4) Pick up the correct answer in the following:

An Underdeveloped economy exports:

- a) manufactured consumer goods
- b) manufactured capital goods
- c) agricultural commodities
- d) tools and equipments

22.3 ANALYSIS OF THE GROWTH OF INDIA'S FOREIGN TRADE

A proper analysis of a country's foreign trade can be attempted in its three components part, viz., (a) Volume of trade (b) Composition of trade, and (c) Direction of trade.

22.3.1 Volume of Trade

The volume of trade relates to the size of international transactions. Since a large number of commodities enter in international transactions and their aggregate can be found only by finding their money value, the volume of trade can be measured by finding its value. The trends in the value of trade help to identify the basic forces that may be operating at different periods in the economy. However, mere absolute changes in the value of trade may not be satisfactory guide, hence it is necessary to find the change of value of trade by relating them to two variables, viz., (i) share of exports/imports in GDP, and (ii) share of exports/imports in world trade. The share of exports/imports in GDP indicates the degree of outward-orientation or openness of the economy in regard to the trade activity. This share reflects in a broad way the nature of trade strategies adopted in the country. The ratio of exports to GDP could be interpreted also to mean supply capability of the economy in regard to exports. It can be called as average propensity to export. The similar ratio between imports and GDP gives the average propensity to import. The share of exports in the world trade indicates the importance of the country as a nation in the world economy. It reflects the market thrust that the country maintains in the world market. Changes in this ratio thus indicate the shift in the position of the comparative advantage of the country.

Further, changes in the value of exports may be compared to the changes in the value of imports. The relationship between these two variables is known as the terms of trade, i.e., the terms at which exports exchange for imports; if the exports value in terms of imports value shows an increase, the terms of trade are said to be favourable. Favourable terms of trade imply that for a given value of exports, a country can import more goods. Conversely, if the terms of trade are unfavourable a country has to give up more exports to procure a given volume of imports.

22.3.2 Composition of Trade

The composition of trade is indicative of the structure and level of development of an economy. For instance, most of the developing countries depend for their export earnings on a few primary commodities; these countries export raw materials of agriculture origin and import manufactured or industrial products, thus denying

themselves the benefits of value added. As an economy develops its trade gets diversified; it no more remains dependent on a few primary commodities. It begins to export more of manufactured industrial goods and import industrial raw materials, capital equipment and technical knowledge how.

The following questions need be analysed in this regard: (i) What is the degree of concentration of the composition of exports/imports? Has there been any change in the degree of concentration over time ? (ii) Is there any shift in the share of the primary products and manufactured products in the total export or import trade? (iii) The commodities entering trade could also be classified by various other criteria such as value added per unit of output, productivity of labour, capital intensity in production, the strength of backward and forward linkages, etc. The shifts in the commodity composition of trade in these categories would bring out the nature of structural changes in regard to income generation, employment effect and overall industrialization through linkages effects etc.

22.3.3 Direction of Trade

The direction of trade, similarly, is indicative of the structure and level of economic development. As a country develops and its trade gets diversified, it has to seek new outlets for its exports. Its horizon of choice in terms of imports also gets widened. The country begins to trade with an increasingly large number of countries. In this regard, one could ask whether there has been a concentration or dispersion of the markets for exports and sources of supply for imports.

It is in terms of these components that we have to study the trends in India's foreign trade during the last four and a half decades of economic planning.

22.4 VOLUME OF INDIA'S FOREIGN TRADE

As provided in our development plans the volume of merchandise trade has been on the rise-trade to GDP ratio has gone up from about 8 per cent in 1950 to about 20 per cent presently. The increase has been caused both by exports and imports. Table-1 below presents the growth rates of exports and imports during each of the plans.

Table-1: Growth Rate of India's Foreign Trade during Plans
(Annual percentage change)

Plan/Period	Exports	Imports
I	-	5.0
II	0.7	7.7
III	4.9	4.7
IV	13.6	11.7
V	18.3	19.5
VI	13.0	13.9
VII	19.8	16.0
1990-91	9.1	13.2
1991-92	-1.5	-19.4
1992-93	3.8	12.7

1993-94	20.0	6.5
1994-95	18.4	22.9
1995-96	20.8	28.
1996-97	5.3	6.7
1997-98	4.5	5.9
1998-99	3.9	0.9

It would be useful to analyse separately the trends in the volume of exports and imports.

22.4.1 Value of Exports

India total exports have increased by about 240 times during the last about five decades, from Rs.606 crore in 1950-51 to over Rs.1,41,604/- crore in 1998-99. However, the increase has not been uniform over the period. We can look at plan wise increase in the value of exports to have a clear understanding of the underlying trends. The relevant data is summarised in Table-2 below:

Table-2: Annual Average Value of India's Exports During the each of the Plans

(Rs. Crore)

PLAN	VALUE
First	605.4
Second	605.8
Third	752.8
Fourth	1810.0
Fifth	5346.0
Sixth	8967.0
Seventh	15582.0
Eighth	86270.0

It would be seen that India's exports were relatively stagnant during the first three plan periods; they picked up some momentum during the Fourth plan period, and in more recent period there has been a dramatic increase in the total value of exports from India.

But, as stated earlier, absolute values of exports do not convey much about the state of the economy. For one thing, all of these values are at current prices. These, therefore, do not indicate anything about the change in the total quantum of exports. Secondly, the absolute values do not bring out the changing significance of the export sector *vis-à-vis* rest of the economy. Therefore, in analysing the export performance, we must study the *relative position*.

We can employ, presently, two types of comparisons for this purpose, viz. (a) a comparison with the growth of NNP, and (b) a comparison with the growth of world exports. The relevant data for the purpose of two comparisons is given in table 3 below:

Table-3: Selected Export Ratio of India

Year	World's Export	India's Exports as % of India's National Income
1950-51	2.20	6.8
1960-61	1.05	4.2
1970-71	0.64	3.8
1980-81	0.42	5.4
1990-91	0.52	6.9
1994-95	0.58	8.9
1995-96	0.64	9.2
1997-98	0.60	9.0

a) Comparison with the growth of National Income

That the rate of growth of exports was slower than the rate of growth of National Income during the initial stages of economic planning is clearly brought out by the fact that the India's exports as a percentage of India's National Income fell from 6.8 in 1950-51 to 3.8 in 1970-71.

Subsequently, however, this share has been increasing. It reflects the growing significance of the exports sector in the Indian economy (In general, successful developing economies are seen to have achieved high export share till they matured as advanced industrial economies. The aggregate exports of all high income countries are 15 per cent of their aggregate GDP; average for all low income economies including China is 18 per cent).

b) Comparison with the growth of world exports

Again it would be seen from table 3 that India's share in world's total exports nosedived in the initial stages. During the eighties and the nineties, in the wake of picking up by India's exports, there has been some improvement in the ratio, which has varied between 0.50 and 0.65 per cent. These trends indicate the vast possibilities of growth available in the export sector. Many developing countries have recorded export growth rates much higher than that of India.

Thus, whereas India's exports (estimated at \$ 33,613 million during 1987-89) increased at an annual average rate of 5.9% in dollar terms between 1980-92 the corresponding growth rates for some other developing countries like China, South Korea, Malaysia, Pakistan, etc. exceeded 11 per cent. While China's exports have been grown from \$ 22 billion in early 1980s to \$ 125 billion now, India's exports have grown from \$ 10 billion to \$ 25 billion in the same period. India's ranking among the world's export nations slipped from 16th in 1953 to 20th in 1983 and further to 30th presently.

It is in spite of the country's natural comparative advantages: low wages, ready access to tropical agro-produce and intelligent and educated workforce, artificially low price of inputs like raw cotton, and, of course, preferential access to OECD markets.

22.4.2 Causes of Slow Growth of Exports

We can identify the following as the major causes of the slow growth of India's

exports. First, India's exports have suffered due to a shortage of supplies and inadequate exportable surpluses. If India is to exploit the situation in the world markets to her best advantage, supplies should not only match demand, but should also leave a cushion in capacity, especially in products where we have a price advantage. In the case of important agriculture commodities there should be built-up buffer stocks of adequate size. In manufactured products, it always takes time to create new capacity and a country, which cannot increase supplies at a short notice, may lose markets and sometimes the loss may be beyond repair. It is, therefore, necessary that some built-in surplus capacity, which can take advantage of the world situation at short notice, is kept ready in selected export industries, particularly in those units, which are exporting a sizeable portion of their production.

Secondly, among the fastest growing export products have been the new technology goods such goods formed about half of the total world trade in 1980, a decade and a half- later these constitute more than two-thirds. India has yet to make its mark as an exporter of such goods, except for some recent break through in software exports.

Thirdly, intimately linked with the problem of exportable surplus is the problem of quality control. If the quality satisfies consumer preference, even a higher priced product can be sold in competitive markets. India has not been able to create an image as a supplier of quality goods. The trade is generally opposed to compulsory quality and/or pre-shipment inspection. Sometimes, even after quality control and pre-shipment inspection, there have been complaints which suggest that quality control is not thorough. Nothing harms the exports market more than a bad reputation for quality.

Fourthly, the phenomenal technological advance, coupled with the structural diversification of industries, has strengthened the competitive ability of rival producers in the international markets. Indian exports have been facing acute competition from the newly emerging rival countries, which are quoting prices much lower than what India can. This is primarily because of the fact that the domestic cost of production in India is much higher than what obtains in many other countries. If we compare a representative Indian firm vis-à-vis a Korean firm, which is a strong competitor in respect of some of our products in the international markets, we will see the wide difference in cost structure between our firm and representative Korean firm. In India, the average of cost of production as a percentage of output value at world prices is 130 but it is 98 in a representative Korean firm. If we consider the selling price of 100 in each case, the Indian firm as cost disadvantage of 30 per cent whereas the Korean firm gains by 2 per cent. Indian industries have not adequately felt the need to be cost-conscious as they have enjoyed a protected market due to restrictions on imports, high protective duties and a shortage of domestic supplies. Moreover, the productivity in Indian industry is much lower than that of its competitors. Even in the labour-intensive products the Indian cost price structure is not competitive.

Fifthly, inadequate transportation and shipping facilities have stood in the way of export promotion. Although in absolute terms, Indian shipping has made good progress since the planning began, looking at it from the angle of our needs and the vast development of the shipping industry outside, our progress is not encouraging. In addition most of our exports have severe restrictions in respect of berth facilities, navigational aids, harbour and channel depths, communications and handling equipment, which add to delays and increase transport costs.

Finally, India's exports like exports from other developing countries are pitted against tariff and non-tariff barriers imposed by the developed countries. Exports are also saddled against emerging regional trading blocs like the EU, NAFTA,

Asia-Pacific Rim etc. These will open up opportunities as well as set limitations, but for us there would be plenty of scope only if we can gear up ourselves.

22.4.3 Value of Imports

India's total imports have increased more than two hundred and fifty fold during the last four and a half decades, from Rs.608 crore in 1950-51 to Rs.1,76,099 crore in 1998-99. We can have a look at overall trend in imports during the plan period, as shown in table 4.

Table-4: Annual Average Values of Imports during each Plan

	Rs. Crore
Plan/Period	Value
First	735
Second	973
Third	1240
Fourth	1973
Fifth	6463
Sixth	14683
Seventh	25114
Eighth	96235

The overall trend of imports has been that of an increase right since 1954-55. While exports have been mainly dependent on world demand and availability of exportable surpluses and very imperfectly amendable to domestic policy measures, imports have been largely a matter of Government policy.

The Government's import policy since 1950-51 has fallen into two distinct phases:

The first phase extends up to 1957, which broadly corresponds to the period of the First Five Year Plan. In this period a comfortable foreign exchange position, resulting from the release of the sterling balances, led to a progressive liberalization; apart from the discriminating treatment arising out of the universal dollar shortage, imports were largely freed from controls. But they remained at a comparatively low level, the maximum level of Rs.970 crore was reached in 1951-52.

The second phase began with 1957-58. Around this time, as is well known, the development strategy adopted by India pitched around import substitution. There were two alternative approaches to the implementation of import substitution : (a) Use of fiscal and monetary policies such as tariffs, taxes, interest rate policies, etc. which could provide adequate protection to the domestic industry or encouraging competitive production for import substitution (b) Adoption of physical interventionist policies such as licensing, quotas, banning, etc. of imports and also adopting some tariff measures for providing protection. Import trade control became a regular feature of the country's development strategy. Since then the policy of import trade control has been regularly practised; of course, the degree of control has varied depending upon the circumstances obtaining in the economy. Initially, the main objective of the import trade control was to save foreign exchange. Over the years, the import trade control has acquired a more positive and wider role in the economic development and industrial growth of the economy. It seeks to facilitate

the availability of such imported inputs, which are needed to broaden the base of industrial production and its growth, more especially production for exports.

Imports and National Income: In discussing the level of imports it is useful to observe the relationship between imports and National Income. In planned economies the development effort is likely to increase imports faster than National Income, because investment as a proportion of national income is stepped up and the import content of investment is high in the early stages of development. This, together with the increased requirements of raw materials, intermediate and capital maintenance imports more than offset the restrictions on consumer goods imports.

The relationship between imports and GDP in India has been more or less stable; imports during the first 30 years of planning generally varied between 6.5 per cent and 8.5 per cent of national income. Again, since 1979-80, this ratio has established itself at a higher level; between 8 and 11 per cent. The stability in import ratio would suggest that there has been little change in imports required per unit of domestic product. It is, however, possible that imports required per unit of output have declined in certain categories and increased in other keeping the overall ratio constant.

22.5 TRADE DEFICITS AND TERMS OF TRADE

Except during 1972-73 and 1976-77, India's imports have exceeded her exports, the size of trade deficit has been continuously increasing. The gap assumed menacing proportions with the onset of the eighties. The deficit averaged Rs.5716 crore over 1980-85, Rs.7671 crore over 1985-90 and Rs.6,600 crore during 1990-94 and Rs.21,028 crore during 1994-99. Till the seventies, a part of the deficit was accounted for by deteriorating terms of trade. The large and the widened trade deficits in the eighties are attributable to the sharp rise in the volume of imports relative to the small increase in the volume of exports. The contribution of the movements in the unit values was to moderate the size of the deficits through improvement in the terms of trade of the country. Over the period 1980-81 and 1990-91, the net barter terms of trade improved by 30 per cent. Subsequently, during the period 1991-96, the net barter terms of trade further, improved, as would be seen from table 5 below :

Table-5: Net Barter Terms of trade

(Base 1978-79 = 100)

Year	1990-91	91-92	92-93	93-94	94-95	95-96	96-97
Terms of Trade	109.3	119.5	127.3	144.9	152.4	137.9	126.2

The year 1993-94 witnessed an improvement in the trade account that surpassed the most optimistic projections. (It prompted trade analysts to pronounce that the trade sector has slowly crossed the threshold of the famous-J-Curve and is now on its upward slope). The J-curve thesis explains that things get worse before they make a dramatic improvement. In terms of foreign trade it implies that initially the country experiences rising BOT deficits, but ultimately there emerge BOT surpluses. Sweeping tariff cuts and liberalisation of both exports and imports were undertaken as part of the reform process. Exports grew at over 20 per cent, whereas imports grew at a lower rate of 6.5 per cent. The result is that the trade deficit shrank.

Exports maintained their upward trend in 1994-95 and 1995-96 also although without much change in the export basket. During this period, imports also went up. As a result the size of trade deficits is also beginning to grow. But unlike in the past, the present trade deficits are manageable.

Check Your Progress 2

- 1) Which of the following statements are true?
 - a) There has been a dramatic increase in India’s exports in more recent years.
 - b) India’s exports as a proportion of world’s exports have been continuously rising.
 - c) India’s imports as a percentage of India’s national income have been rising

2) Mention four causes of slow growth of India’s exports.

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3) What do you mean by the term ‘trade deficit’ ?

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22.6 COMPOSITION OF INDIA’S FOREIGN TRADE

The picture that emerges from the aggregate behaviour of trade value, volumes and prices gets reflected in the composition of trade also.

22.6.1 Composition of Exports

The changing composition of exports is brought out by data presented in table-6 below:

Table-6: Composition of India’s Exports

(million)

Groups	1960-61	1970-71	1980-81	1990-91	1998-99
Agriculture and allied products	284 (44.23)	487 (31.73)	2057 (30.65)	6317 (19.57)	5996 (17.8)
Ores & minerals	52 (0.81)	164 (10.68)	414 (6.17)	1497 (4.60)	891 (2.6)
Manufactured goods	219 (45.33)	772 (50.30)	3747 (58.33)	23736 (72.91)	25797 (76.6)
Mineral fuels & lubricants	7 (0.01)	13 (0.01)	28 (0.04)	948 (2.91)	89 (0.3)
Others	8 (0.01)	100 (0.06)	466 (6.94)	55 (0.02)	880 (2.6)
Total	642 (100.0)	1535 (100.0)	6711 (100.0)	32539 (100.0)	33,659 (100.0)

In table 6 we have grouped the various items of exports in five categories. It would be observed from that (a) the relative share of agriculture and allied products in total exports in on the decline; and (b) the relative share of manufactured goods is on the rise.

For more penetrating analysis, we can classify the various exports in three groups, viz., (1) Export-oriented manufactures, viz., exports through industries which are significantly export-dependent; (2) domestic-oriented manufactures, viz., exports through industries which largely cater to domestic needs and (3) non-manufactures, viz., products which are of a natural or agricultural sector. The relative share of the three groups in total exports has been 53% , 12% and 35% respectively. Apparently, manufactures, and there in too the export-oriented manufactures, have come to dominate our export basket. For a country aspiring to industrialize, a shift in favour of manufactured exports is good.

But not quite. Rather than diversification being a source of growth for them, our manufactured exports have increasingly got concentrated in a few items. From about a half in 1984-85 close to two-thirds of all manufactured exports in 1998-99 were accounted for by just three product categories, viz., leather and leather products, textiles and garments, and gems and jewellery. This can be interpreted both in a positive and a negative manner. On the positive side, the potential of these items, undoubtedly, has by no means been exhausted. In fact, given low wage rates, the country will continue to enjoy its natural competitive advantage in these labour-intensive manufactures and we should promote their exports with vigour. But, at the same time, it is obvious by now that future thrust in exports will have to come through items other than these labour-saving manufactures. Rapid growth in exports can come only through new products in the category of manufactured exports. And within this, for reasons more than one the most dynamic option is offered by the engineering industry. One, the base of the engineering industry is quite diverse and the country is capable of offering a large variety of finished products and components. Two, India's engineering exports are barely visible in the global market. This presents a tremendous opportunity for the Indian engineering industry to penetrate the global market. Three, market penetration is all the easier for we can be competitive in a number of engineering products. The industry so far as failed globally because it has tried to export products developed for an unsophisticated Indian market. The key to the success lies in how soon the engineering industry can start manufacturing specifically for foreign markets.

22.6.2 Composition of Imports

Imports, as already seen above, have been largely governed by the import trade control policy of the Government. Apparently, the composition of imports has been changing in response to the needs of the economy.

India's imports can be classified into three parts, viz., (a) consumer goods, (b) raw materials and intermediates, and (c) Capital goods. While the imports of consumer goods have been totally restricted and have been permitted only when required to meet domestic shortage, imports of raw materials, intermediate goods and capital goods have generally increased. We can observe different trends form Table7 below:

Table-7: India's Principal Imports Classified by Use

(percentage share)

Group	1950-51	1955-56	1960-61	1965-66	1970-71	1975-76	1990-91	1998-99
Consumer Goods	26.2	19.9	23.9	22.8	13.0	25.3	3.5	5.5
Raw Materials & Goods Intermediate	53.6	51.4	46.6	19.8	54.6	52.4	77.8	72.6
Capital goods	20.2	28.7	29.5	45.5	24.7	18.3	15.0	21.9
Total (inc. others)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Economic Survey

- a) The imports of consumer goods, as already stated, have been allowed when they are required to meet domestic shortages. Among these the more important have been cereals, especially wheat, and pulses. Hence, these imports do not show any systematic pattern. They have been usually high in the year succeeding the bad crop year. Since 1976-77, and these imports have been negligible, primarily because of growing large food grains production during the period 1998-99.
- b) The imports of capital goods like machinery and other industrial equipment shot up very rapidly between 1955-56 and 1965-66, which correspond to the period covered by the Second Third Plans. It may be remembered that the strategy of growth adopted in our Five Year Plans leaned heavily on the growth of the capital goods industries. This objective could be realised, in the initial stages, only with the help of imports since the domestic industrial structure was not geared to the task. These imports helped to develop capital goods industries, and in course of time the country was in a position to dispense with the imports of these commodities. As a consequence, the share of the capital goods in total imports has shown a continuous fall during the period 1965-90. With the on-set of the economic reforms programme, technological improvement and efficiency became the keyword for industrial survival in the emerging competitive environment. Reduction in custom duties added fuel to the already surcharged economic environment. The response of the Indian entrepreneur has been to equip himself with the latest technology. This has translated into higher imports of capital goods during the period 1991-97.
- c) The group of commodities which has been growing in importance over the years consists of raw materials and intermediate goods most of which are in the nature of maintenance imports. As the growth process moved, shortages and scarcities of different types of raw materials and intermediate goods began to be felt. These shortages would adversely affect the utilisation of capital goods, but for their imports. Hence, the large imports of these commodities have been allowed. Among these imports, the most significant have been crude oil and petroleum products, fibres, fertilisers and chemical products, iron and steel, and non-ferrous metals.

Maintenance imports include four different categories of imports, viz., (i) Raw materials and components required for operating: (a) existing industrial and allied capacities at their present level and, (b) additions to these capacities which may be expected to take place over a specified period. (ii) intermediate products such as crude petroleum required for the production of various petroleum products. (iii) Fertilisers, pesticides and machinery required for increasing agricultural production. (iv) food imports required for meeting anticipated gaps at existing levels of nutrition.

To sum up, the composition of India's foreign trade reflects, to a great extent, the structural changes that the Indian economy has experienced during the last four and a half decades. It is no longer an exporter of primary commodities and an importer of manufactured goods. It exports manufactured goods and imports raw materials, intermediate goods and capital goods.

22.7 DIRECTION OF INDIA'S FOREIGN TRADE

22.7.1 Direction of Exports

A ringside view of the direction of India's direction of exports can be had from Table-8 below

Table-8: Direction of India's Exports (1998-99)
(% share)

Country/Group	Share
E.U.	25.0
USA	19.5
Japan	5.5
Russia	2.6
Other East Europe	5
OPEC	10.1
LDC	28.0
Others	8.7
Total	100.0

- i) The relative importance of the UK and the USA as outlets for our exports has declined over the years. Whereas in 1950-51, these countries together accounted for more than 40 per cent of India's exports this share has come down presently to less than 24 per cent. The USA, all the same, continues to be our principal buyer. It has however to contend with EU member-nations who as a group offer us a very rich market.
- ii) The export trade with the former USSR and other East European countries generally expanded during the decade 1965-75. The stimulus to exports to these countries had been provided by the mechanism of bilateral trade agreements. Of late, however, with the disintegration of the Soviet Union and the socio-economic-planned economies, the mechanism of bilateral agreements has broken down; presently these countries, all told, account for a mere 3 per cent share in India's trade.
- iii) In more recent times, specially after the break-up of erstwhile Soviet Union, India's exports to Asia and Oceania markets have shown a sharp jump. In fact, the current boom in exports is sustained largely by what officials see as an unexpected and healthy rise in exports to the Asia and Oceania countries, which include the ESCAP countries like Australia, Iran, Japan, Korea, Malaysia, Singapore, Thailand, Hong-Kong, Bangladesh and Nepal. The shift in favour of these countries implies that Indian exporters have at last concentrated in markets closer home to capitalise on the advantage from lower freight cost. It is also an evidence of the outward orientation being imparted to the economy by reforms.

22.7.2 Direction of Imports

The direction of imports has been largely influenced by the development of the economy. In the initial stages of growth, a large part of the development process was financed through foreign aid, which was primarily in the form of tied aid. As a result, a large part of imports originated from the aid-giving countries. For example, in 1965-66 more than 35 per cent of India's total imports came from the USA, since then the share of the USA has declined although it continues to be our largest

supplier, accounting as it does for about 8% of our imports. This can be seen from Table-9 below:

Table-9: Direction of India's Imports (1998-99)

Country/Group	(% Share) Share
European Union	23.8
USA	9.0
Japan	5.1
Russia	1.5
Other East Europe	0.6
OPEC	23.8
LDC	17.9
Others	18.3
Total	100.0

The share of the UK in India's imports has also sharply declined although it continues to be a major supplier. Among the other major countries that have made inroads in our imports trade are Belgium, Canada, Germany and, Japan. The EU as a group accounts for about 24 per cent of our imports. With the inclusion of three more countries from January 1, 1995, the share of the EU is expected to increase further.

Among the centrally planned economies, the former USSR was an important purchasing centre for us. But in recent years, as already earlier noted, the importance of these countries is on the decline. Russia along with other Eastern European countries presently accounts for not more than 2 per cent of India's total imports.

A more significant development has been the emergence of oil-producing countries as a significant purchasing centre for us. This has been largely because of oil products. The OPEC alone accounts for about 22 per cent of our total imports.

22.7.3 Diversification or Concentration ?

Nine countries, viz., the UK Germany, the then USSR, Japan, Iraq, Iran, Australia and Canada had a lion's share ranging between 51-62 per cent of our exports and 56 to 75 per cent of imports during the three decades from 1951-52 to 1979-80. In 1990-91 their share of exports was as high as 56.7 per cent while their share in imports has fallen down to 47.6 per cent. More recently, in 1998-99, 36 per cent of our total exports found their destination in the EU, the USA and Japan. Likewise, about 41.5 per cent of our total imports originated from the EU, the USA and Japan.

It is clear that India's foreign trade is not diversified. This can create a problem in the long run. Some recent international events like changes in economic set-up of East European countries, consolidating Europe, etc. will rather force India to consider

new areas for her trade. On the positive side, however, accounting to recent report of international Finance corporation, Japan and United Europe will provide a huge market for India's exports. Similarly, India should establish market arrangements with these countries, getting raw materials from them and in turn supplying finished goods. Proper planning of our direction of trade will help in solving our balance of payments problems.

Check Your Progress 3

1) Identify the major exports of India.

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2) Identify the major imports of India.

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3) Give three examples of maintenance imports.

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4) What changes have taken place in the direction of India's foreign trade since independence?

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22.8 LET US SUM UP

In this unit, we described the composition, volume, direction and growth of India's foreign trade. During the last five decades significant change have been observed in the volume, composition and direction of trade. Although most of these changes have been in consonance with the development needs of the economy, one or two problems need immediate attention. The first is the problem of the deficits in the balance of trade. Growing trade deficits did post problems of resource mobilisation for the Indian planners till the recent past and, therefore, need be monitored continuously Secondly, our share in world trade has been showing a gradual fall. This tendency need be reversed if India is to play its rightful role in the international division of labour.

22.9 KEY WORDS

Composition of Trade: Refers to the nature of goods traded between the countries.

Direction of Trade: Refers to the countries with which a country exchanges goods.

Non-tariff Barriers: Different types of restrictions imposed by a country on imports from other countries.

Primary Commodities: The commodities that are extracted from nature like crops, marine products, minerals, etc.

Tariffs : Import duties imposed by a country.

Terms of Trade: Refers to the ratio of prices of exports to the prices of imports.

Trade Policy: Refers to all the policies that have either direct or indirect bearing on the trade behaviour of a country.

Value of Trade: The monetary value of goods traded between countries.

Volume of Trade: The physical quantity of goods traded between countries.

22.10 SOME USEFUL BOOKS

Government of India	: Economic Survey (Annual) 2000-2001
Dhingra, Ishwar C.	: The Indian Economy (2000) ,Ch.24
Joshi, Vijay and IMD Little	: India's Economic Reforms 1991 2001 (Oxford, New Delhi,1996)
Reserve Bank of India	: Report on Currency and Finance(Annual) 1998-99
Jalan, Bimal	: India's Economic Policy (1996)

22.11 ANSWERS OR HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) See Sub-section 22.2.1
- 2) See Sub-section 22.2.2
- 3) See Sub-section 22.2.3 for all the four

Check Your Progress 2

- 1). Correct Statements are (a), (c) and (d). Read through section 22.4
- 2) See sub-section 22.4.2
- 3) See section 22.5

Check Your Progress 3

- 1) See Sub-section 22.6.1
- 2) See Sub-section 22.6.2
- 3) See Sub-section 22.6.2
- 4) Read Section 22.7 thoroughly and then highlight the major changes in the direction of exports and direction of imports

UNIT 23 BALANCE OF PAYMENTS

Structure

- 23.0 Objectives
- 23.1 Introduction
- 23.2 Concept of Balance of Payments and its Uses
 - 23.2.1 Current Account and Capital Account
 - 23.2.2 Balance of Payments
- 23.3 Balance of Payments and Developing Economies
- 23.4 Trends in India's Balance of Payments
 - 23.4.1 Period I
 - 23.4.2 Period II
 - 23.4.3 Period III
 - 23.4.4 Period IV
- 23.5 Causes of BOP Deficits
- 23.6 Measures Adopted to Solve the Problem
- 23.7 Export Promotion in India
 - 23.7.1 Rationale of Export Promotion
 - 23.7.2 Measures for Export Promotion
 - 23.7.3 Flaws in Export Promotion
- 23.8 Export Strategy
- 23.9 Let Us Sum Up
- 23.10 Key Words
- 23.11 Some Useful Books
- 23.12 Answers/Hints to Check Your Progress Exercises

23.0 OBJECTIVES

This unit carries the discussion of India's foreign trade started in the previous unit further. This unit goes beyond balance of trade to balance of payments, and explains its meaning. It then describes trends in India's Balance of Payments and discusses the measures that have been taken to promote exports. After you have read the unit you should be able to:

- 1 Distinguish between balance of trade and balance of payments;
- 1 Explain the difference between current account and capital account;
- 1 Explain the concept of balance of payments and its importance;
- 1 Discuss the need for export promotion;
- 1 Evaluate the export promotion programme of the Government of India;
- 1 Provide suitable suggestions for export promotion; and
- 1 Evaluate various steps taken by the Government to solve the balance of payments difficulties.

23.1 INTRODUCTION

In the last Unit, we have evaluated the changing structure of India's foreign trade since independence. Trade is only one aspect of international economic transaction. A constant flow of men, material and capital takes place between nations.

This flow involves both payments and receipts of foreign exchange. A nation needs keep a systematic record of these transactions. It is only then that an economy's dependence on the rest-of-the-world and its capability to utilise external resources for its own development gets determined. This systematic record of transactions is what we call balance of payments.

23.2 CONCEPT OF BALANCE OF PAYMENTS AND ITS USES

The principal tool for the analysis of the monetary aspects of international trade is the *balance of international payments statement*. This statement is also simply known as the balance of payments (BOP). *BOP is a systematic record of all international economic transactions, visible as well as invisible of a country during a given period, usually a year.* In other words, the BOP statement is a device for recording all the economic transactions within a given period between the residents of a country and the residents of other countries.

23.2.1 Current Account and Capital Account

The analysis of the BOP can be done in terms of its two major sub-divisions viz., (i) Current Account, and (ii) Capital Account.

1) **Current Account:** The current account of the BOP can be broken in two parts. Viz., (a) balance of trade and, (b) balance of trade in services.

a) **Balance of Trade (BOT):** The BOT deals only with exports and imports of merchandise (or visible items). The net balance in the BOT will show the monetary value of the difference in exports and imports of a country. Thus, three types of net BOT can be visualised:

- i) Deficits in BOT; these will occur. When $X < M$;
- ii) Surplus in BOT; these will occur. When $X > M$; and
- iii) Balance of BOT; these will occur. When $X = M$.

b) **Balance of Trade in Services (BOS):** The BOS shows net receipts on account of trade in services, (or what are also called invisibles). We can broadly classify invisibles into five groups, viz., (i) services, such as banking, insurance, shipping civil aviation, royalty, consultancy services, postal services, etc. (ii) investment income, which includes profits and dividends on direct, portfolio and other investments as well as interest charges on bilateral and multilateral loans. (iii) travel both business and tourist, (iv) government transfers, and (v) private transfers. All of these transactions are two-way transactions; i.e. during any year these services would be provided by Indians to the rest-of-the-world, and foreigners would be providing these services to India. Indians would receive rewards for their services, which are called current receipts. Likewise, India would have to pay for the services rendered to it by the rest-of-the-world. These are known as Current payments (P). The net of current receipts and current payments constitutes balance of trade in services or BOS. During a year BOS may take any of the following three forms:

- i) Deficits in BOS; these will occur. When $R < P$;
- ii) Surplus in BOS; these will occur. When $R > P$; and
- iii) Balance in BOS; these will occur. When $R = P$

Balance on current account is the sum or aggregate of BOT and BOS, i.e.,

Balance on Current Account = BOT + BOS

i.e., balance on current account is the net of all current foreign exchange earnings of a country during a year and its liabilities in the form of foreign exchange expenditure (ex) during the year. Its foreign exchange earnings come out of the

exports of merchandise and the receipts arising out of the services rendered by it. Its foreign exchange expenditure is incurred on its imports of goods and the payments due to foreigners on account of the services rendered by them. Apparently, like BOT and BOS, current account of the balance of payments may show any of the following three results :

- i) Current Account Deficits: these will occur. When imports < exports.
- ii) Current Account Surplus : these will occur. When imports. > exports.
- iii) Current Account Balance: these will occur. When imports. = exports.

a) **Current Account Surplus** means that a country has earned more foreign exchange during a year than what it has contracted to spend. In this situation, the country's foreign exchange reserves may increase. Alternatively, it may decide to pay off its earlier debt with the help of the surplus foreign exchange it has earned during the year. A third alternative may be that it may decide to give loans to other countries out of its own surplus earnings.

Likewise, a **Current Account Deficit** implies that a country has committed to spend a larger amount of foreign exchange than what it has earned during the year. There may be two alternatives before it now. One, it may draw upon its foreign exchange reserves, and thus settle its liabilities. Two, it may borrow abroad to settle its current liabilities; but in this case it is creating future liabilities for itself in the form of external debt.

If the current account is in balance, i.e., if a country's foreign exchange earnings during a year balance its foreign exchange expenditure, there is nothing much a country has to do in this area.

2) **Capital Account:** The other component of the BOP statement of a country is the capital account. The capital account of the BOP presents transfers of money and other capital items and changes in the country's foreign assets and liabilities resulting from the transactions in the current account.

As seen earlier if a country is having a deficit on its current account BOP it need borrow from the rest of the world to square of its current excess liabilities. Likewise, if it has a surplus, it can lend to the rest-of-the world. These transactions are recorded on its capital account. All the borrowings of a country constitute the credits (cr.) in the capital account, while all lendings by it constitute its debits (dr.) in the capital account. Likewise, all repayments of old debts constitute debits, while receipts from the rest-of-the-world constitute its credits. Thus, if a country has been borrowing over a long period of time, during a particular year it would be contracting new loans (cr.) as well as paying of earlier debts (dr.) . The net of these debits and credits constitutes the capital account of the BOP.

It would be observed that the capital account transactions are designed to provide the balance of current account deficits (or surpluses). It means that if a country is having current borrowing, so that it is left with a sufficient surplus to meet its current excess liabilities, after meeting its repayments obligations of the past debt that fall due in the year. In other words, during a year,

Net capital transfers from	Current Account
will equal	deficit plus
rest-of-the-world	Net repayments of past debt.

Apparently, a country will be obliged to borrow more if either its current account deficit is high or its commitments towards repayment of debt are high or both.

In any case, if a country has a deficit on its current account BOP it will need to have a surplus on its capital account BOP, the surplus on capital account will be used to finance the deficit on current account.

23.2.2 Balance of Payments

The term ‘balance of payments is the’ sum or aggregate of its current account and capital account. Current account and capital account will always move in the opposite directions; a deficit on current account will always meet with a matching surplus on capital account, and conversely a surplus on current account will match with a deficit on current account. And in the ultimate analysis, an economy’s BOP will be in balance i.e., there will be no deficits and surpluses in aggregate BOP.

The above equality in the two sides of the BOP account is of course only an accounting equality. It would be observed that if a country continuously incurs current account deficits and finances such deficits with capital account surpluses, all that it is doing is that it is postponing its current liabilities to the future. The external debt burden will keep on increasing as new debt is further contracted.

The BOP accounts provide a link between the increase in gross external debt and the imports and spending decisions of the economy. Thus,

$$\text{Increase in Gross external debt} = \left\{ \begin{array}{l} \text{Current Account Deficit} \\ - \text{ direct and long-term portfolio} \\ \quad \text{capital inflow} \\ + \text{ official reserve increases} \\ + \text{ other private capital outflow} \end{array} \right.$$

From the above relationship it would be clear that in the process of economic development a small deficit on current account is required to take advantage of the foreign savings and build up physical investments domestically.

Check Your Progress 1

1) What is balance of payments?

.....

2) Distinguish between visible items and invisible items of trade. Give three examples of each.

.....

3) Distinguish between balance of trade and balance of payments.

.....

4) When will a country need to have a surplus on its capital account?

.....

.....

.....

23.3 BALANCE OF PAYMENTS AND DEVELOPING ECONOMIES

It is well known in development economics that UDCs invariably start as debt or economies. In the process of development itself, these economies have to import a great deal of capital goods, consumer goods, food and raw materials and spares and components. They also have to import some new technologies and, hence, the total exchange outgo cannot be matched by export earnings. But, it is expected that in a decade or two, as the new capital goods and technologies begin to become effective and their products are directed towards exports, export goods and services become competitive in cost and quality. In that case, the volume of exports expands and, in due course, begins to overtake imports. A developing economy then moves on from being a debt or economy to a balanced one in terms of balance of payments and, finally, becomes a credit or economy, exporting more than it imports and giving credit to buyers. Thus, from being a net debt or in the beginning, it becomes a net credit or in the end and, in fact, begins to invest abroad rather than have others lending to and investing in it.

23.4 TRENDS IN INDIA'S BALANCE OF PAYMENTS

India has faced pressures on BOP from time to time either due to certain domestic compulsions or due to external factors. The whole period, covering nearly the four and a half decades, can be divided into four sub-periods depending on (i) the nature of BOP problem, (ii) the overall macro-economic environment, and (iii) the external aid situation. The four sub-periods are as follows:

- 1) upto 1975-76 (Period I),
- 2) 1976-77 to 1979-80 (Period II),
- 3) 1980-81 to 1989-90 (Period III), and
- 4) the recent phase of 1990-98 (period IV).

23.4.1 Period I (Up to 1975-76)

The entire period was very difficult for India's BOP, partly because of slow growth of exports in relation to import requirements and partly because of adverse external factors. Despite tight import controls (through quantitative restrictions) and foreign exchange regulations the current account deficit was 1.8 per cent of the GDP. Foreign exchange reserves were at low levels, generally less than necessary to cover three months imports. Almost the entire current account deficit (92 per cent) was financed by inflows of external assistance on highly concessional terms. There was hardly any commercial deficit.

23.4.2 Period II (1976-77 to 1979-80)

These few years stand out as the golden years for India's BOP. India had a small current account surplus (0.6 per cent of the GDP on an average) and foreign

exchange reserves equivalent to about seven months' imports. Export growth was good but the primary reason for the sharp improvement in BOP was the dramatic improvement in net invisibles. Net invisibles increased from a paltry Rs.193 crore in 1974-75 to Rs.2,486 crore in 1979-80.

23.4.3 Period III (1980-81 to 1989-90)

The period broadly corresponds to the period of the Sixth Plan and Seventh Plan. The Sixth Plan was launched when the economy was faced with severe BOP difficulties. In 1981, India entered into an arrangement with the International Monetary Fund for a loan for SDR 5 billion under the Extended Fund Facility. The amount was to be disbursed over a three-year period.

The BOP deficits were particularly acute during the Seventh Plan period. The current account deficit during the whole plan period was as high as 2.2 per cent of the GDP as against 1.3 per cent of the GDP during the Sixth Plan Period.

23.4.4 Period IV (1990-91 onwards)

The BOP crisis reached its climax during 1990-91; current account deficits reached a maximum of 3.26 per cent of the GDP, as would be seen from table-1 below:

Table-1: Key Indicators of India's Balance of Payments

Year	Exports (a)	Imports (b)	Trade Balance (c)	(As percent of GDP)	
				Net invisibles (d= b-c)	Current A/c deficit (f = d+e)
Average of					
1985-90	5.1	8.3	-3.2	0.9	-2.3
1990-91	6.2	9.4	-3.2	-0.1	-3.2
1991-92	7.3	8.3	-1.1	0.7	-0.4
1992-93	7.8	9.8	-2.0	0.2	-1.8
1993-94	8.8	9.7	-0.9	0.5	-0.4
1994-95	8.8	10.5	-1.6	0.8	-0.8
1995-96	8.9	12.0	-3.1	1.5	-1.6
1996-97	8.6	12.3	-3.7	2.6	-1.2
1997-98	8.5	12.2	-3.7	2.3	-1.3
1998-99	8.2	11.4	-3.2	2.2	-1.0

India was faced with a serious BOP crisis. In view of this, a comprehensive strategy to deal with it was put in place.

Although the BOP continued to be under pressure during 1992-93, there was a distinct improvement compared to the crisis situation prevailing in the middle of 1991. Since then the BOP situation has continued to register improvement, although we have not come out of the shadows completely.

23.5 CAUSES OF BOP DEFICITS

The BOP deficits have come to stay with us for long. We will take an overall view of the causes responsible for these deficits, and would like to identify them more particularly in light of receipt happening.

- 1) **Balance of Trade Deficits:** The first and the foremost cause of balance of payments deficit in India has been the trade deficits that India has had to encounter right since the beginning of the growth process. The import needs of the economy went on increasing without a corresponding increase in exports, resulting in mounting trade deficits.

Even in more recent times there is sufficient evidence to indicate that the import intensity of Indian industry is rising under pressure of global competition, and with search for advanced technology this trend is certain to continue. Thus, there is apprehension that unless it is matched by high export growth there may be some risk of a substantial drain of foreign exchange reserves.

- 2) **Declining Surpluses on Account of Invisibles:** A marked feature of India's BOP has been that it has been earning a net surplus on account of trade in invisibles. Large earnings on account of invisibles have been due to remittances from Indians working abroad and surplus earnings on travel services. In the long run, the net position on invisibles would depend on the outcome of two opposing sets of forces—one being the surplus earnings on travel services, government transfers and private transfers and the other being the deficit on investment income. Interaction of these two sets of opposing forces would not, however, change the trend in the immediate future and invisible trade would generate surplus for some more time to come. But there exists a strong possibility that in the long run the negative forces of investment income would outweigh the positive impact of the rest of the items, leading to a deficit in invisible trade thereby creating further complications in the BOP.

- 3) **Mounting Burden of External Debt Servicing:** Another factor behind the increasing pressure on the BOP has been steadily mounting burden of external debt servicing. This is estimated to have increased from about \$ 7.6 billion in 1989-90 to about 10.73 billion in 1998-99. Not only has the total volume of external debt been increasing rapidly, the share of short-term commercial borrowing—at market rates of interest as against concessional official development assistance (ODA)- and NRI deposits designated in foreign currencies has been increasing rapidly. With the hardening of interest rates abroad, this newly evolving pattern of external liabilities has steadily pushed up the debt service liability. Indeed, it is the increasing payment of interest on external debt – payment on current account arising from the increasing total debt liability, which has added to the need for external borrowing.

- 4) **Dim Prospects of Getting Concessional Aid :** During the earlier course of economic development, current account deficits could easily be funded by concessional aid both from bilateral and multilateral sources. But towards the end of eighties the various sources of concessional assistance were drying up, whereas current account deficits were mounting up. The prospects for getting concessional aid on an increasing scale appear to be bleak under the given economic circumstances, mainly because of the following four factors: (a) the generally worsening climate for official development Assistance (ODA)- most developed nations have been unwilling to increase and, in some cases, even maintain the size of their contribution, (b) the view that the Indian economy is now well equipped to tap commercial sources of foreign exchange finance; (c) the entry of new claimants

on the pool, such as China and other nations of East Europe, (d) and emergence of new independent nations, like Estonia, Lithuania, Latvia, Ukraine etc. Since commercial borrowings are quite a costly proposition there is a limit, beyond which it may not be possible for the Government to borrow. Even in case of such loans care must be taken that they should be raised for projects, which are carefully selected, speedily executed and which have direct impact on increasing our exports or reducing the magnitude of imports.

Check Your Progress 2

- 1) What has been the most difficult period from the point of view of balance of payments of India ?

.....

- 2) Mention four important causes of balance of payments difficulties in India?

.....

23.6 MEASURES ADOPTED TO SOLVE THE PROBLEM

From the point of view of the measures adopted by the government to solve the problem of BOP deficits the whole period since 1950-51 can be divided in two parts, viz. (1) 1951-91 and (2) since 1991.

- 1) **Till 1991**, BOP deficits were sought to be controlled by measures like (i) promoting the growth of import substitution type of industries, (ii) putting physical restrictions on imports, (iii) extending assistance for export promotion, (iv) providing incentives for increasing foreign exchange earnings on account of invisibles. The fact that these measures could only moderately be successful is brought out clearly by the fact that the country was faced with BOP crisis of unprecedented dimensions.
- 2) Since 1991 India has put in practice a comprehensive strategy to overcome BOP deficits. The main elements of this strategy can be identified as follows:
- a) **Fiscal and Monetary Discipline:** Strict fiscal and monetary discipline has been sought to be adopted to control aggregate demand. The central fiscal deficit stands reduced from 8.4 per cent of GDP in 1990-91 budget to 4.5 per cent in 1999-2000.

Monetary policy has aimed at slowing down the growth of money supply. The rate of growth of money supply has been brought down from 18.5 per cent in 1991-92 to 13.2 per cent in 1995-96, and 17.8 per cent in 1998-99.

- b) **Exchange Rate Policy and Foreign Trade Policy Reforms:** Till 1993, the exchange rate of the Indian rupee was fixed by Government. Since March 1, 1993,

a new system of exchange rate determination has been introduced. This is known as the unified exchange rate system or UERS. Under this system, all payments and receipts of foreign exchange are converted in rupees at market rate of exchange. Further, Union Budget for 1994-95 introduced full convertibility on current account that makes many trade transactions relatively free of controls. As a part of foreign trade policy reforms, imports restrictions on capital goods, raw materials and components have been virtually eliminated. Thus, excess import demand will be reflected in a higher market exchange rate and self-correcting mechanism will operate to keep trade deficit in check. Along with this considerable reductions in peak tariffs, especially tariffs on capital goods, have been affected. Cash margins and interest surcharge on import credit have been abolished. Harmonised system of customs classification has been introduced.

- c) **Structural Reforms:** Among these we may briefly mention as follows: (i) substantial deregulation of trade and industry; (ii) delicensing of many industries; (iii) promotion of competition by the opening up of many areas previously reserved for the public sector to private and foreign investment; (iv) policies put in place of attract foreign direct and port-folio investment; (v) amendment of SICA to permit public enterprises to be examined by BIFR ; (vi) financial sector reformers including deregulation of interest rates, dismantling of directed credit, reforming the banking system, improving the functioning of the capital market including the government securities market, etc.
- d) **Mobilisation of Exceptional Financing :** Steps have been taken to mobilise exceptional finance from multilateral agencies and bilateral donors. (Exceptional financing need is defined as the requirement felt over and above the inflows of official project aid, commercial borrowings, and NRI deposits). Among other related measures are: stand-by arrangement with the IMF, structural adjustment and social safety net loans negotiated with Asian Development Bank, etc.

Results: The present strategy to overcome BOP crisis is all comprehensive and well coordinated. The results of this type of strategy have been quick to appear. The pressures of BOP have considerably eased as is brought out by the fact that the foreign exchange reserves, which touched a low of # 30,000 million presently as shown in table 2 below:

Table -2 : India's Foreign Exchange Reserves

End of March	Amount # million	Import cover (no. of months)	Current Payments cover (no. of month)
1951	1914	16.8	14.6
1961	390	2.0	1.7
1971	584	2.9	2.2
1981	5850	4.5	4.0
1991	2236	1.0	0.8
1995	20708	8.2	5.9
1996	16018	5.44	3.8
1997	21261	7.00	4.0
1998	25975	7.50	4.5
1999	29522	7.50	4.5

It would be seen that whereas in 1991 we were left with meagre reserves sufficient to cover only one month's imports and 0.8 month's current payments, now we have accumulated reserves that cover about 7 months of imports and 4 months of current payments. This order of reserves is a good cushion and provides big flexibility to policy makers.

To conclude, India has formulated a successful strategy to overcome BOP limitations on growth. But, all the same, it need be remembered that a lasting solution to the BOP problem still eludes us. Our current account deficits are still large and are once again set to rise. Large current account deficits imply that we have to take resort to external borrowings, which in turn put further pressure on BOP deficits. A lasting solution to the BOP deficits is to be found only in generation of large current account surpluses. Generation of current account surpluses, at the present stage of economic development, by and large, means that we should go in a big way to expand our exports. Rapid expansion in exports is the only way to find a permanent solution to our balance of payment problem.

23.7 EXPORT PROMOTION IN INDIA

“Export or Perish” has never been so relevant during the last four and a half decades as now.

23.7.1 Rationale of Export Promotion

Among the factors that make it almost compulsive that we increase the level of our exports, the following may be mentioned .

First, the import needs of the economy are likely to increase in future unless, as already stated, we are ready to slow down our process of growth; specifically the bill on account of direct oil imports and the investment-induced imports of foreign technology and capital put together, is likely to assume an enormous magnitude in the future. It will also be necessary to reckon with the additional deficits on account of non-oil imports.

Secondly, in the context of our past experience it may no longer sound proper to depend upon external assistance to finance essential imports. As long as such assistance is available it should be made use of, but in the process, we should not burn our own sails. Instead efforts should be on to take control of the situation whenever the external pipelines get choked up .

Thirdly, our debt-servicing burden has already assumed serious proportions and is projected to grow more serious. It may not be possible or advisable any more to contract new loans to pay off the old ones.

Fourthly, given the types of technology available, which favours large production units by bringing in economies of scale, our production structure, at least in a few important sectors, may become necessary to widen the market base by exploring new market abroad.

Fifthly, exports may also be needed to raise the earnings capacity for import of essential consumer goods like edible oil food grains (if required, at any time in future), sugar etc., whose domestic shortages have very often in the past, created serious instabilities in the economy.

Finally, the existence of a highly diversified industry, with a large entrepreneurial base experienced in assimilating technology, is providing the on-going reform process with the opportunity to generate rapid expansion in manufactured exports. Such

rapid expansion of manufactured exports would not only increase the growth rate, insulate the economy from the dangers of another round of austerity necessitated by a BOP crisis, and more importantly, provide the most direct and powerful means for eradicating poverty. As the exports basket is widened to cover a greater range of labour-intensive manufactured goods and these experience similar if not higher, rate of growth, the impact on India's poor would be as dramatic as it has been in miracle East Asian economies.

In short, the export sector is being regarded 'second only to defence' . This expresses the need for a vigorous export drive.

23.7.2 Measures for Export Promotion

Export promotion is a multi-dimensional activity. As such export promotion measures adopted by the Government have embraced a number of areas like production for export, quality control, packaging export credit and finance, export incentives and assistance, export marketing organisational set-up etc. We shall review the various measures undertaken under these different heads.

A) Export Production

The production for export has been given a special treatment by the Government, Industrial units in the priority sector exporting 10 per cent or more of their production are granted preferred sources of supply and facilities for further expansion of their export production.

Special treatment is also being accorded to 10 per cent export-oriented units (EOUs). The EOUs can be located anywhere in the country and are eligible for duty-free imports of capital goods, raw materials and components.

Likewise, Export Processing Zones (EPZs) on the lines of Free Trade Zones (FTZs) of Singapore and Hong-Kong have been set up to facilitate free imports and exports. Each zone provides basic Infrastructural facilities like developed land, standard design factory buildings, built up sheds, roads, power, water supply and drainage, in addition to whole range of fiscal incentives.

Quality Control: Intimately connected with the problem of exportable surplus is the problem of quality control. The Government has enforced quality control and pre-shipment inspection through the provision of the Export (Quality Control and Inspection) Act, 1983. Under the provisions of the Act, the Export Inspection Council has been set up to discharge all the functions relating to quality control. There is compulsory export inspection for specified products.

Packaging: Attractive packaging is as important as the quality of a product. In order to promote research in development cheap, sound and attractive packaging, the government has set up the Indian Institute of Packaging.

B) Export Credit and Finance

Short-term export credits in the form of pre-shipment and post-shipment finance are provided by the commercial banks, which are authorised dealers in foreign exchange. These credits have been covered by a special refinance scheme of the Reserve Bank of India and are provided at a concessional rate of interest.

Exim Bank: The government has set up the Export-import Bank wide functions to finance, promote and develop foreign trade. It came into being on January 1, 1982.

Exim Bank is the principal financial institution engaged in coordinating the working of institutions engaged in financing and promoting export and import of goods. The Bank provides financial assistance to promote Indian exports through direct financial assistance, overseas investment finance, term finance for production and export development, pre-shipment credit, buyers' credit, line of credit, relending facility, export bill rediscounting, refinance to commercial banks, finance for computer software exports, marketing and bulk import finance for computer software exports, marketing and bulk import finance to commercial banks. The diversified lending programmes of Exim Bank now cover various stages of exports i.e., from the development of exports markets to expansion of production capacity for exports, production for exports and post-shipment financing. Exim Bank's focus is on export of manufactured goods projects.

C) **Export Incentives and Assistance**

Various types of export incentives have been evolved; these have been altered and modified from time to time to meet varying conditions. Broadly, these incentives can be classified into three categories, viz., (i) fiscal incentives, (ii) financial incentives, and (iii) special incentives schemes.

- i) **Fiscal incentives.** Under fiscal incentives the important measures that have been in vogue are income tax concessions, customs drawback, refund of excise duty, exemption from sales tax, provision for export under bond, and facility for manufacture under bond.
- ii) **Financial Incentives.** These incentives refer to the provision of cash assistance for specified export promotional efforts and export facilities.
- iii) **Special Incentives Schemes.** Easy access to imported inputs through instruments like the Open General Licence (OGL), Engineering Products Export Scheme, exemption from income tax for profit from exports lowering of the tariffs, etc. are some of the measures designed as incentives to the exporters.

D) **Organisational Set-Up**

The Government has established several specialized organizations for export promotion like (i) The Central Advisory Board on Trade, (ii) The Trade Development Authority, (iii) The Federation of Indian Export Organisations, (iv) Export Promotion Councils, and (v) Commodity Boards like Rubber Board, Coffee Board, Tea Board, Tobacco Board and Spices Board. Etc.

In addition, for increasing State participation in foreign trade, a number of public sector agencies have been set up, among which the more important are: The State Trading Corporation and the Minerals and Metals Trading Corporation. The STC group now includes, besides the STC, the Cashew Corporation of India, the Handicrafts and Handlooms Export Corporation, the Project and Equipment Corporation, the State Chemicals and Pharmaceuticals corporation and the Central Cottage Industries Export Corporation.

In short, the export promotion programme of the Government covers a very broad spectrum. To an extent these measures have been successful in as much as they have made stagnant Indian exports move, although at a slow rate. A consequence of the slow growth of exports has been that India's share in world exports has been

falling gradually; presently, it stands at no more than 0.60 per cent. While , on the one hand, it reflects the poor performance of exports, on the other it also indicates, given proper opportunities, the vast potentialities for growth. Let us identify our basic limitations and suggest remedies for their removal.

23.7.3 Flaws in Export Promotion

i) A major flaw in our export promotion system is that we have been giving undue emphasis to improving price competitiveness of export products and profitability of export operations. Various fiscal, financial and other incentives have been evolved mainly for reducing cost disadvantage of export products and augmenting profitability of export marketing operations. While price plays an important role in influencing the buying decisions, other factors such as quality of the product, ability of the exporters to comply with the delivery schedule etc., also are important factors influencing foreign buyers. Therefore, export promotion measures can be effective only if they are duly co-ordinated to meet the export marketing needs in all respects i.e. distribution channels, quality of the product, etc. (ii) though many export promotion bodies and export services institutions facilitate compilation and dissemination of international marketing information, vital information directly affecting export-marketing opportunities does not get properly compiled, analysed and systematically disseminated. Also, resources constraints inhibit individual firm to effectively act on market information received. (iii) the levy of indirect taxes on export products and later the refund of the same is a wasteful process as the amount to be refunded gets unnecessarily blocked with the national exchequer thereby delaying its productive use. (iv) availing of promotional measures involves various procedural formalities, which are complicated and also time-consuming. As long as the average producer is bitten by the bug “export and perish” nothing really can be achieved.

Check Your Progress 3

1) Mention four corrective measures for balance of payments pursued till 1991.

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2) Discuss the main elements of the present strategy to solve balance of payments problem in India.

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3) Mention five structural changes introduced in Indian economic policy.

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23.8 EXPORT STRATEGY

A sound strategy of export promotion need incorporate the following features:

1) **Building up a Sound Export Production Base**

Till the recent past very little has been done to build up a stable and viable export production base and supportive infrastructural facilities to cope effectively with a growing export demand. Supply constraints and infrastructural bottlenecks have, therefore, become stumbling blocks to export efforts as an integral part of the total production programme in the export oriented sectors. Therefore, it is necessary to make a deliberate production plan and to earmark a part of production for export even if there is a pressure of domestic demand on export supplies. In this connection, D.V. Kapur Committee has suggested: (i) inducing domestic producers through more incentives to export, (ii) building in an advantage in attaining economies of scale, and (iii) further liberalisation of the licensing policies aimed at injecting intense competition.

2) **Supply of Adequate Technology**

It must be realised that a mere expansion of capacity for export production is not enough; it must be based on appropriate technology to enable us produce 6-Sigma quality products (6-Sigma indicates virtually zero defect product) so that products can stand competition in international markets. There is a growing technology gap between the world and us. Our technology may be appropriate to our needs but not for exports where updated technology is necessary. India's success in agricultural, space and nuclear research shows that it has the capacity to develop the most modern technologies if necessary resources of men and material and proper incentives are provided. While talking of technology, we should also keep in mind the need for the upgradation of packaging standards. Packaging is an integral part of the product and an important element of success of exports.

3) **Concessional Supply of Intermediate Goods**

A major hindrance to exports is the high costs of basic industrial inputs-steel, metals, plastics, glass, etc. – in the country. The only way to enable our exporters to compete fairly with their counterparts abroad is to ensure that these basic goods are available to everyone-exporters, potential exporters and non-exporters – international prices.

4) **Selectivity in Exports**

In the past we had a tendency to try and export whatever we could produce in excess of our requirements. In that context and particularly in terms of planned effort it was important that we should produce for whatever could find a market. The principle is still valid; but a glance at the range of goods that figure in world imports is sufficient to show that we cannot possibly produce all the goods for which world markets exist. Some additional criteria are, therefore, required to determine what goods India should try to produce for export. India should avoid, to the maximum extent possible, goods that are capital-intensive, energy-intensive or transport-intensive or which use domestically produced inputs that themselves are capital-intensive, energy-intensive or transport-intensive.

There are many industries where India has an advantage because of relatively

lower costs of all forms of manpower— whether it is professional or factory labour. However, while this can give an initial advantage, it should not be taken for an enduring advantage. **One**, as products become more sophisticated, labour as a cost factor becomes less and less important. **Two**, the differences in cost are narrowed down through higher levels of automation. **Three**, in processes that require large number of cheap labour, the industry is bound to shift its operation along the line of the ever-declining scale of poorer countries. So a poorer country than India can eventually overtake us with yet cheaper labour. Therefore, when one has established an export market on the basis of cheaper manpower, one has to be vigilant to make sure that one builds up other advantages to compensate for the inevitable loss of this temporary advantage.

5) **Expansion of Warehousing Facilities**

Warehousing facilities should be expanded in important commercial centres abroad, specially for fast-moving consumer goods. Nowadays, foreign buyers are reluctant to keep a high level of inventories and want the exporters to do so in order to enable them to buy the product in smaller quantities and at short notice. Although warehousing is an expensive operation, it pays good dividends in the long run and helps establish closer and more stable relations with the market.

6) **Supply of Trade Information**

A well directed foreign trade policy should be based on accurate trade information supported by reliable data. We have yet to conceive of a system by which this can be done. At present trade statistics are based on highly loaded information supplied by the Export Promotion Councils to obtain maximum advantage of duty drawbacks and export subsidies.

7) **Efforts to Widen and Diversify the Markets**

Indian entrepreneurs have to constantly bear in mind the fast changing trade trends and reorient their strategies, to aim at deriving higher yield by way of larger shares in the markets and better unit realisation by way of higher levels of quality and value added products. The three pronged thrust on their part would call for: (a) a relentless attempt at recovering the last ground by wresting a larger share in the world markets for sectors of traditional strength like tea, spices, jute, leather, mica and other miscellaneous agro-based products; (b) a concerted move for maintaining and enhancing the momentum gained by commodities like oil meals, basmati rice, marine products, etc; and (c) a sustained focus being kept on the sectors which have lately fared well—chemicals, engineering components, jewellery, fabrics, handicrafts, and software.

Finally, we have to realise that healthy export sector can be built up only on a strong domestic economic structure. A sound domestic economy is a must if we want a self-sustaining buoyant export sector.

In this context it may be stressed that export promotion and import substitution are neither mutually exclusive nor alternative strategies of development. They represent two sides of the same coin. The factors and policies which would be necessary to bring about an acceleration in export growth would also lead to efficient import substitution: Whether it is a better management of the public sector and an alleviation of infrastructural bottlenecks, on the other hand, or an improvement in the performance of the agricultural sector and a revival of industrial growth, on the other. In other

words, the economic determinants of the balance of payments must be related to development at a national level rather than the external sector alone, i.e., the balance of payments prospects should not be considered in isolation from the growth prospects of the economy.

Check Your Progress 4

- 1) Discuss the need for export promotion in India at this stage of economic development.

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- 2) Mention the three import measures taken by the Government for promoting exports from India.

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- 3) What steps we need to take to promote our exports?

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23.9 LET US SUM UP

A developing economy needs more of imports to meet the development requirements of the economy. Since the exports fail to keep pace with the import requirements the deficit is met by foreign borrowings. This has created balance of payments difficulties for India. The ultimate solution to the problem lies in promoting exports on a big scale. This needs a well-formulated strategy.

23.10 KEY WORDS

Balance of Payments: A systematic record of all international economic transactions, visible and invisible, of a country during a year.

Balance of Trade: It is an account of exports and imports of goods only of a country.

Capital Account: Presents transfers of money and other capital items and changes in the country’s assets and liabilities resulting from the transactions in the current account

Current Account: It is an annual statement of income of a nation from the rest of the world. It states the net amount receivable or payable on account of transactions in goods and services both.

Current Account Deficit: A situation in which a country's total earnings of foreign exchange fall short of its obligations of foreign exchange during a year.

Concessional aid: Borrowing from an external source on easy terms.

Import Intensity: The ratio of imports in total cost of inputs used in the production of a commodity.

Portfolio Investment: Investment in the purchase of equity shares and debentures, etc.

23.11 SOME USEFUL BOOKS

Reserve Bank of India	:	Balance of Payments Manual
Reserve Bank of India	:	Report on Currency and Finance (Annual)
Government of India	:	Economic Survey (Annual)
Joshi, Vijay & I.M.D. Little	:	India's Economic Reforms 1991-2001.

23.12 ANSWERS/HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) See first para of Section 23.2
- 2) See Sub-section 23.2.1
- 3) See Sub-section 23.2.1
- 4) See last part of Sub-section 23.2.1

Check Your Progress 2

- 1) See Sub-section 23.4.4
- 2) Thoroughly read Section 23.5

Check Your Progress 3

- 1) Read Section 23.6
- 2) Thoroughly read Section 23.6
- 3) See Section 23.6

Check Your Progress 4

- 1) See Sub-section 23.7.1
- 2) See Sub-section 23.7.2
- 3) Thoroughly study Section 23.8

UNIT 24 FOREIGN CAPITAL AND MULTINATIONAL CORPORATIONS

Structure

- 24.0 Objectives
- 24.1 Introduction
- 24.2 Capital Transfers and Economic Growth
 - 24.2.1 Role of Foreign Capital
 - 24.2.2 Components of Foreign Capital
- 24.3 Multinational Corporations
 - 24.3.1 Characteristics of Multinational Corporations
 - 24.3.2 Significance of Multinational Corporations
 - 24.3.3 The Case for Multinational Corporations
 - 24.3.4 The Case against Multinational Corporations
 - 24.3.5 Regulation of Multinational Corporations
- 24.4 Government Policy towards Foreign Capital in India
- 24.5 New Economic Policy and 1991-99 Policy Changes
- 24.6 Let Us Sum Up
- 24.7 Key Words
- 24.8 Some Useful Books
- 24.9 Answers/Hints to Check Your Progress Exercises

24.0 OBJECTIVES

This is the final unit in Block 7 on international aspects that have an impact on the Indian economy. After reading this unit, you should be able to:

- 1 Identify the components of foreign capital;
- 1 Explain the role of foreign capital in economic growth;
- 1 Describe the characteristics of multinational corporations;
- 1 Prepare a case for multinational corporations in a developing economy;
- 1 Comment upon the need for liberal attitude towards foreign capital in India; and
- 1 Examine the response of domestic enterprises and foreign capital to recent policy changes

24.1 INTRODUCTION

Inflow of capital from abroad is vital for growth of a developing economy, especially in the initial stages of its economic development. Modern economic history abounds with examples of countries that have successfully drawn upon the capital resources of more advanced countries for the sake of economic development. Even later, several Asian countries have performed similar feats. Let us examine India's experience in this regard.

24.2 CAPITAL TRANSFERS AND ECONOMIC GROWTH

Let us begin by discussing the meaning of foreign capital and its role in economic growth.

24.2.1 Role of Foreign Capital

The role of foreign capital in a developing economy can be analysed in terms of its gap-filling functions. Three such gaps can be identified: (i) Saving gap, (ii) Trade

gap, (iii) Technology and management gap.

i) **Saving Gap:** The key to the development problem lies in raising the rate of capital formation. Such a raise envisages a much higher level of investment than is warranted by the present level of saving in the UDCs. The scope for sharp rise in domestic savings is limited by the prevailing low level of income, slow rates of growth and rising consumption needs in these economies. The gap between investment requirements and domestic savings can be filled by foreign capital. A little simple algebra will show why. The fundamental proposition of national accounting is that

$$Y = C + I + (X - M) \dots\dots\dots(1)$$

Where Y = gross national product (total spending), C = Consumption, I = Investment, X = export of goods and services plus income received from abroad, and M = imports of goods and service plus income paid abroad. All this spending generates an identical flow of income (Y); this total income equals total spending; of all income, some is consumed and some is saved. Thus,

$$Y = C + S \dots\dots\dots(2)$$

Then, since spending equals total income, by substitution.

$$C + I + (X - M) = C + S \dots\dots\dots(3)$$

From this equal, we can, by simply manipulation, easily discover the essential constraints on capital formation. Move (X - M) to the right-hand side, reversing its sign ; cancel C on both sides, the result is

$$I = S + (M - X) \dots\dots\dots(4)$$

The algebra is clear. A country’s investment opportunities are determined by its potential for domestic saving plus net capital inflows from abroad (M> X). The only way for imports to exceed export is for the country to borrow abroad ; M>X is thus equivalent to a capital inflow. The availability of foreign capital increases the availability of total resources in the economy. The increase in total resources helps a UDC primarily in two ways. *First*, it influences investment decisions. Certain programmes of development can give the optimum results if all the components of the programme are undertaken simultaneously in a phased manner. The availability of foreign capital makes this type of investment possible. *Secondly*, establishment of bigger projects and projects with a high investment component open up new opportunities of investment and thus encourage domestic entrepreneurs and savers to supply their services and savings. The addition to the total volume of resources generated thereby exceeds the addition made by foreign resources.

ii) **Trade Gap or Foreign Exchange Gap.** A UDC is faced with two structural constraints: (i) a minimum requirement of inputs to sustain a given rate of growth of GNP, and (ii) an actual or potential ceiling on export earnings which are insufficient to finance the required imports. In such a situation, unless the constraint is removed, the growth will be lower than what the maximum potential domestic savings would have allowed. The constraints will be more severe if any of the following two situations obtains:

- a) Some “strategic goods” like capital equipment and technical know-how, etc., are not available locally and could be procured only from external sources; or
- b) Technical conditions of industrialisation require a complement of foreign resources along with domestic resources, so that the latter would lie idle if the former are not available.

In either of the above two situations, the availability of foreign exchange can save

an economy from the position of an impasse in which it may find otherwise, and place at her disposal high quality factors such as improved machinery, technical know-how and qualified foreign technicians which may have a beneficial effect on her development by, what Harrod called “fertilising the productivity of common labour”.

iii) **Technological and Management Gap.** The role of technology in bringing about economic growth is obvious. The level of technology in a developing economy can be raised through (a) the internal evolutionary process of education, research, training and experience, or (b) the external process of importing from other developed countries. In respect of the import of technology, contemporary developing countries have the added “advantages of the latecomers”. This has received much attention lately. Since development has actually proceeded in rest of the world, these countries have a rather whole range of technology to choose from and do not have to repeat the process of evolving it. The import of technology, however, raises two issues, viz., (a) the choice of technology, and (b) local adaptation. The act of choosing a particular technology is dependent on the state of domestic complementary research because only then will a country be able to know the quantity and quality of the know-how to be imported and the price to be paid for it. Adaptation of technology requires that the process of import of technology should be accompanied by indigenous research and development.

Analogous to technology gap is a gap in management, entrepreneurship and skill. Foreign capital can supply a “package” if needed resources that can be transferred to their local counterparts by means of training programmes and the process of learning by doing.

To sum up, foreign capital touches three sensitive areas, crucial in the development strategy of a developing economy. It is almost true to say that the growth, at least in the initial stages, in the present times can not be a self-generating process. Indeed, with a sole dependence on the domestic resources it may be difficult to break the vicious circle within which a developing economy is usually caught.

24.2.2 Components of Foreign Capital

The inflow of capital from abroad may take either in the form of (a) foreign aid, or (b) private investment. Foreign aid includes loans and grants from foreign governments and institutions. This source of foreign capital, especially loans, has an important limitation in the form of repayments obligations. As regards private foreign capital investment, the intense academic debate relating to its effects remains inconclusive. The opponents of foreign investment have drawn attention to several imperfections and adverse effects, such as capital intensity of such investment, inappropriate technology, the possible adverse effects on income distribution, transfer pricing and the negative contribution that such investment often makes to the BOP. The advocates of foreign investment, on the other hand, have highlighted the beneficial effects in terms of encouragement to the development of technology, managerial expertise, integration with the world economy, exports and higher growth. It has also been claimed that debt financing generates fixed debt servicing obligations, while equity needs to be serviced only after profits are made. There is also substantial empirical evidence, which can be presented to support both points of view. For example, in recent years, foreign private investment seems to have contributed enormously to the growth of several Asian newly industrialising countries (e.g. Thailand, Malaysia and Singapore). There are examples, particularly from Latin America and Africa, where the contribution of foreign investment has not been so encouraging.

The two important sources of private capital investment are:

- i) **Direct Business Investment:** It may comprise any of the following forms: (i) investment by branches of foreign companies, (ii) investment by subsidiaries of foreign companies, and (iii) investment by other foreign controlled companies.
- ii) **Portfolio Investment:** It may comprise: (i) equity holdings by non-residents in the recipient country’s joint stock companies; (ii) creditor capital from private sources abroad invested in recipient country’s joint stock companies, and (iii) creditor capital from official sources in recipient country’s joint stock companies.

Investment and Collaborations although foreign investment and collaboration with foreign parties are very closely interrelated, they are not one and the same thing. Foreign investment may take place without collaboration and Vice versa. Capital participation refers to the foreign partner’s stake in the capital of the recipient country’s company while technical collaboration refers to such facilities provided by the foreign partner as technical services, licensing, franchise, trade marks and patents (against which he gets lump sum or royalty payments for a specified period).

In modern times, multinational corporations (MNCs) have become the major carries of foreign capital and technical know-how. We shall examine in brief the major characteristics of this form of organisation.

Check Your Progress 1

- 1) Mention three important gaps that need be filled by foreign capital in a developing economy.

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- 2) Explain the need for foreign capital in developing economy.

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- 3) Mention two problems associated with import of technology.

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24.3 MULTINATIONAL CORPORATIONS

An MNC is one, which undertakes foreign direct investment, i.e., it owns or controls income generation assets in more than one country, and in so doing produces goods and services outside its country of origin, i.e., engages in international production. As per the estimates made available by the UN Centre on Transnational Corporations there are in operation about 11 thousand subsidiaries abroad.

24.3.1 Characteristics of Multinational Corporations

The MNCs have certain characteristics, among which the more important are as follows:

- i) **Giant Size:** The assets and sales of MNCs run into billions of dollars and they also make supernormal profits. For example, the foreign assets of Royal Dutch Shell, the world's largest MNC, are estimated to be \$ 69 billion, larger than the GDP of Pakistan (\$ 40 billion), Nigeria (\$ 34 billion), or the Philippines (\$ 45 billion).
- ii) **International Operations:** In such a corporation control resides in the hands of a single institution. But its interests and operations sprawl across national boundaries. An MNC operates through a parent corporation in the home country. It may assume the form of a branch or a subsidiary in the home country. If it is a branch, it acts for the parent corporation without any local capital or management assistance. If it is subsidiary, the majority control is still exercised by the foreign parent company, although it is incorporated in the home country. The foreign control may range anywhere between the minimum of 51 per cent to the full 100 per cent. An MNC thus combines ownership with control. The branches and subsidiaries of an MNC operate under the united control of the parent company.
- iii) **Oligopolistic Structure:** Through the process of merger and takeover, etc., in course of time an MNC acquires awesome power. This coupled with its giant size makes it Oligopolistic in character.
- iv) **Spontaneous Evolution.** MNCs usually grow in a spontaneous and unconscious manner. Very often they develop through "creeping increments". Many firms have become international by accident. At times, firms have also established and better opportunities prevailing in the home country.
- v) **Collective Transfer of Resources.** An MNC facilitates a multilateral transfer of resources. Usually this transfer takes place in the form of a "package" which includes technical know-how, equipments and machinery, raw materials, finished product, managerial services, and so on. MNCs are composed of a complex of widely varied modern technology ranging from production and marketing to management and finance.

24.3.2 Significance of Multinational Corporations

The MNCs have revolutionary effect on the international economic system. It is so because the growth of international transactions of the MNCs has affected the more traditional flows and international trade for many economies. Moreover, with the retreat of socialism, and failure of aid as an instrument of economic development, there has been a greater realisation of the capacity of MNCs to deliver an efficient package of practices. In the 1970s MNCs were characterised by alarmists as something of an evil *monster-almost like muggers on dusk night waiting to pounce on the innocent passerby*. MNCs were seen as pariahs, not saviours-objects of harm, not instruments for good. These attitudes have changed in the last few years. Today they constitute a powerful force in the world economy. One estimate suggests that the biggest 500 MNCs control about 10 per cent of world trade, 80 per cent of foreign investment and about 30 per cent of world GDP. Indeed the MNCs have become the main agents in the economy and in trade so much so that production and trade statistics in the form of national aggregates have become obsolete.

24.3.3 The Case for Multinational Corporations

There are several advantages, which arise as a result of the operations of MNCs. In fact, it has been emphasised that MNCs are an economic phenomenon, which no one can wish away except at the cost of remaining on a Robinson Crusoe island in an ocean of prosperity.

The benefits of MNCs may briefly be discussed as follows:

- i) The UDCs are technology backward. They lack sufficient pre-sources to carry on research and development. From this point of view, MNCs have offered a great boon. They have served as agents for the transfer of superior technology. They have provided advanced technological know-how, sophisticated manufacturing processes and improved skills to UDCs.
- ii) The MNCs have helped the UDCs to secure capital from the developed countries.
- iii) The UDCs do not have a sufficient degree of “linkage” with other industries. The MNCs usually produce “linking effects” in the host country. They also help in the creation of “linked industries”. Such linkages may be either forward or backward. The MNCs help to build up “knowledge base” and thus serve the development of human resources. They serve as carriers of knowledge and experience.
- iv) The MNCs also help to build up “knowledge base” and they serve the development of human resources.
- v) The operations of MNCs have a favourable effect on the balance of payments of the host country. As “Global Scanners” they possess a global marketing organisation through which they can promote exports from the developing countries.
- vi) The MNCs also help in creating large scale employment opportunities by setting up their branches and subsidiaries in the host countries. Employment generation is a function of mainly two variables, first the rate of growth of investment, and secondly, the nature of technology. Investment by MNCs is, therefore, encouraged in the UDCs.
- vii) In a situation where a country is already faced with a heavy debt servicing burden further borrowing by it may only push it into what may be called ‘debt trap’. Private investment will help it get necessary foreign exchange resources, whereas it will help avoid adding to the debt-servicing burden.

24.3.4 The Case Against Multinational Corporations

First, MNCs are primarily profit-oriented. They tend to concentrate more on the technology-intensive branches of manufacturing, not only because they tend to capitalise on their cost advantage but also to protect their market for certain commodities. Thus, the role of MNCs in the underdeveloped world does not serve the purpose as required, because the sectors in which they invest create relatively few jobs and thus fail to help eradicate unemployment and poverty two chronic problems of the south.

Secondly, MNCs bring in their own technology, which is usually capital intensive, and hence more suitable to advanced parent countries. They make no effort to adapt an appropriate technology suitable to the needs, circumstances and environment of the host country. They strive to make industry permanently dependent on

overseas expertise and technology. It may be added, however, that if a country is as big as of India's size, there is no reason to fear that such investment can ever reach at levels which would threaten the country with the unenviable status of a banana republic.

Thirdly, the transfer of technology proves extremely costly. The MNCs charge exorbitantly in the form of fee, royalty and other charges, which put a severe drain on the foreign exchange resources of a UDC. There seems to be a historical formula in use: 70 per cent more of a given inflow of foreign capital per year flows out from the host country in the visible forms of profit and dividend. Also, MNCs are being accused of creating a major brain drain in the country, for they whisk away the top skilled manpower available in the country.

Fourthly, MNCs promote regional economic disparities. These create islands of development and prosperity in the ocean of underdevelopment.

Fifthly, the presence of MNCs may prove detrimental to the long-run industrial development of the country. If a strong MNC is operating in a particular field, the local firms may find it difficult to compete with it.

Sixthly, although MNCs could have played a catalytic role in the promotion of research and development in the developing economies, their performance in this connection is far from satisfactory. Their expenditure on scientific research is negligible.

Seventhly, in the business operations the MNCs very often take resort to undesirable and corrupt practices. A report of the UN have given a lucid account of many of such practices, rigging of bids, price fixing and other forms of market distortions. They also take resort to devious means to increase their profit, e.g., recent moves by MNCs in India to divert high-profit activities to their 100% owned subsidiaries from the listed affiliates in which they have simple majority equity stake.

Eighthly, MNCs prefer to participate in the production of mass consumption and non-essential items. A plethora of international brands selling junk food, designer jeans and sunglasses do not make for meaningful investment.

Finally, once financial liberalisations are in place and freer movement allowed, international capital could quickly make a developing country bend to its will by destabilising, for example, the currency market and forcing devaluations or withdrawing support to Government bonds and endangering the continuance of the Government itself.

In a partial response to the above arguments it may be stated that many of the old myths are no longer valid. Present day Third World Governments are not exactly powerless like those of yesteryears, nor are the modern MNCs unscrupulous, insensitive and interventionist. They have transformed themselves into modern MNCs, which acknowledge their responsibility to the concerns and interests of the host countries and basically operate on the basis of maturity of interest of both. MNCs are increasingly losing the sense of loyalty to their home country to provide employment. They are in search of bases where they can produce their products most competitively. The slogans "Think global, act local" and "multi-domestic" are working reality with most multinationals today. In view of this, there has been a perceptible change in the attitude of the UDCs towards the MNCs.

24.3.5 Regulation of Multinational Corporations

In view of the fact that MNCs do possess a potential that can be gainfully

External Sector

exploited, most of the UDCs have chosen to regulate their activities rather than to dispense with them altogether an effort to separate the gold from the dross.

First, the threat of nationalisation is an effective tool of regulation. Although nationalisation should be resorted to only in the extreme situation, the very fact that it can be exercised makes the corporations act in a disciplined manner.

Secondly, the Government may allow collaboration in certain selected industries or certain selected regions where the operation of MNC is felt highly suitable.

Thirdly, MNCs may be allowed to invest for specific period. Thus, after a certain period of time restrictions may be imposed on foreign holdings, or there may be provision for gradual disinvestment.

Fourthly, a multi-tax system may be followed by the Government. The MNCs be taxed at a higher rate. Fifthly, the host country may lay down certain export criteria.

Finally, MNCs may be asked to carry out a minimum fixed share of their total research and development activities within the host countries.

Check Your Progress 2

1) What is multi-national corporation?

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2) Identify four major characteristics of a multinational corporation.

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3) Mention four important benefits associated with multination corporations.

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4) Mention four limitations of multinational corporations in India.

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24.4 GOVERNMENT POLICY TOWARDS FOREIGN CAPITAL IN INDIA

In the planned economy of India, foreign capital has been assigned a significant role, although it has been changing over time. In the earlier phase of planning, foreign capital was looked upon as a means to supplement domestic investment. Many a concession and incentives were given to foreign investors. Later on, however, the emphasis shifted to encouraging technological collaborations between Indian entrepreneurs and foreign entrepreneurs. In more recent times, efforts are on to invite free flow of direct foreign investment. It would be instructive in this background to examine the Government's policy towards foreign capital before we analyse the role of foreign capital in the Indian economy.

Foreign investment in India is subject to the same industrial Policy as all other business ventures, plus some additional policies and rules specially governing foreign collaborations.

The first articulate expression of free India's attitude towards foreign capital was embodied in the IPR, 1948, which emphasised, at once, the need for carefully regulating as well as inviting private foreign capital. It laid special stress, inter alia, on the need to ensure that in all cases of foreign collaboration, the majority interest was always India. This was followed by the Fiscal Commission of 1949-50 which recommended that foreign investment may be permitted, first, in the public sector projects needing imported capital goods, and secondly, in new private industries where no indigenous capital or technical know how was likely to be available. This was followed by a statement on policy towards foreign capital made by the Government on April 6, 1949. The underlying principles of the policy by and large are valid even now. These may be enumerated as follows:

- i) Foreign capital once admitted will be treated as par with indigenous capital.
- ii) Facilities for remittance of profits abroad will continue.
- iii) As a rule, the major interest in ownership and effective control of an undertaking should be in Indian hands.
- iv) If an enterprise is acquired, compensation will be paid on a fair and equitable basis.
- v) The Government would not object to foreign capital having control of a concern for a limited period and each individual case will be dealt with on its merits.

In short, the Government promised non-discriminatory treatment of foreign investment and free remittance facilities for both profit and capital. An emphasis was laid on the employment and training of Indians in higher positions. In keeping with these guidelines, the general policy was to allow such foreign investment and collaborations as were in line with the priorities and targets of the Five Year Plans. The policy was to restrict foreign collaboration to those cases which would bring technical know-how indigenously for developing new lines of production.

These principles define the broad contours within which the State Policy towards foreign capital has been framed all through the different Five Year Plans. Beginning with the First Plan in 1951, four distinct phases can be marked. The First Phase lasted till 1965, and was characterised by a liberal attitude towards foreign capital. Many concessions and incentives were given to foreign capital participation in the industrial development of the country. In the Second Phase beginning with the mid-sixties, the liberal attitude of the State yielded place to strict controls and the broad policy was to restrict the area of operations of foreign capital. In the Third phase,

beginning towards the end of the decade of seventies, the policy was marked by a certain liberalization. The policy changes eased the restrictions on FDI inflows.

The Fourth phase, beginning with the adoption of economic reforms programme since July 1991, has adopted a liberal attitude towards foreign capital and has aimed at attracting a free flow of direct foreign capital and has aimed at attracting a free flow of direct foreign investment. This preference for private flows over aid is basically accounted for by the fact that the world is now aid- foreign godfathers left to bail us out.

Foreign investment and enterprises which are branches or subsidiaries of foreign companies as well as joint ventures involving foreign collaboration are subject to all the laws governing Indian enterprises – the companies Act, the MRTP Act, the Income Tax Act — as well as industrial regulations under Industries (Development and Regulation) Act along with the rules framed by the Government of India. Of direct relevance to foreign enterprises is the FERA (1973) , which came into effect from January 1, 1974.

24.5 NEW ECONOMIC POLICY AND 1991-99 POLICY CHANGES

The New Industrial Policy, 1991 can be described as a major revolution as far as decisions concerning foreign investment and foreign technology agreements are concerned. Among the important policy changes the following may be mentioned (i) approval will be given for direct foreign investment up to 51 per cent equity in high priority areas, (ii) procedural reforms to smoothen the process of entry of foreign capital, (iii) removal of different restrictions relating to matters like employment of foreign nationals, acquisition of real estate in India by overseas corporate bodies, use of foreign brand names, use of trade marks, royalty outflows etc.

These changes are pointers to the fact that, lately, the Government is keen to attract more of foreign investment. It seems it has come to be believed that it is better to allow equity than to go out to borrow. For one thing, dividend remittances on equity will start only when the unit starts producing . Secondly, capital is generally never repatriated. Profit also is normally re-invested. The company meanwhile makes a substantial contribution to GNP and domestic market becomes competitive. Thirdly, direct foreign investment brings technology. This technology spills over into other sectors, which supply components and inputs. Also when DFI firm produces cheaper and better capital goods or intermediate products, the competitiveness of sectors, which use these, improves. The competitive edge will spur development and accelerate the growth process.

The recent economic reforms have, undoubtedly, improved the foreign investment environment in India; as a matter of fact, the success of the new economic policy hinges in a large measure on the liberal response of the foreign capital. In this connection, we need examine two aspects: viz., (a) Response of the Domestic industries and, (b) Response of the foreign capital.

a) **Response of the Domestic Industries**

As far the domestic industry is concerned there can be two aspects of it, namely (i) apprehensions of the industry, and (ii) likely positive gains.

i) Apprehensions of the Indian Industry : After having experienced with MNCs for

the last six years or so of liberalisation, Indian industry has following to complain about them :

- a) Cow-boy approach of landing in India, hastily choosing a partner, making a mistake and then breaking the relationship;
- b) Leverage an Indian partner to get in, and then move quickly to a 51% equity;
- c) Setting up a 100% subsidiary despite a joint venture;
- d) Supply second hand plant and machinery declared obsolete in their own country;
- e) Short term focus for quick profits;
- f) Sales approach to India as distinct from manufacturing; and
- g) Using expatriate managers and CEOs rather than competitive Indian management.

ii) Likely Positive Gains: A few of these can be counted as follows:

First, presence/entry of MNCs per se has not rung the death knell for the Indian industry, some of the examples being detergents, food processing and razor blades. Indian companies need to look afresh at strategic options to improve their operational efficiency.

Secondly, several of the MNCs may wish to enter into strategic alliance in a joint-venture form rather than starting full-scale manufacturing operations in India at this stage due to time needed for generating confidence in the process of reform; and other countries in the region are perceived to be more open. If this “wooing” period is utilised by Indian companies to search for ways and means, including search for a joint venture partner. Such a strategy will help bring about a technological upgradation in the concerned industry as a whole. This will also ensure competition among “equals”.

Thirdly, joint-venture is a cheaper way of acquiring technology. Foreign equity being a deferred payment is superior to lump sum know-how purchase. Repatriation by way of dividends can only be made out of profits as against servicing of debt. This would also tend to shift forex outflow to the future. Joint venture is also a more assured mode of continuous technology upgradation.

Fourthly, high levels of repatriation by way of dividend by some of the existing companies which operated in protected markets is unlikely to be the case with the new MNC investment. Liberalisation would increase competition and eliminate artificially high protection induced profits.

Finally, while the entry of MNCs in consumer goods industry has received high visibility and evoked strong emotive reaction, several investment proposals are in other areas. Infrastructure and high technology industries may be the largest beneficiaries of the FDI flows. Besides, the so-called luxury industries, such as white goods, consumer electronics, passenger cars are not only potential foreign exchange earners but also large employment generators in the tertiary sector. Surplus capacity all around so as to keep up pressure on marketing and first-hand assessment of the cost advantages in India, are some of the factors which would induce natural growth of exports by MNC enterprises far higher and faster than generated by export obligation conditionality.

b) Response of the Foreign Capital

The response of the foreign capital to recent policy initiatives has not been very enthusiastic as would be seen from table-1.

Table-1: Inflow of Foreign Direct Investment

Year	Approvals	Actual Inflows (\$ million)
1991	325	155
1992	1781	233
1993	3559	574
1994	4332	858
1995	11245	2100
1996	11142	2383
1997	15752	3330

Following observations can be made from table-1.

- i) Foreign direct investment, as revealed by the size of approvals granted by the Government of India, has rapidly increased over the last six years; as a matter of fact these have been consistently increasing.
- ii) The actual inflows began with a trickle; they have started to pick up only slowly.
- iii) How slow is the process would be clear from the fact that whereas India, at best has been in a position to attract 3.1 billion only in 1997, capital inflows to China over the last 10 years have averaged over # 20 billion per year.

All this means is that there are still certain issues, which need be cleared, and solutions found for them. Among these, the following may be identified.

First, it is obvious that what really matters to foreign investors in arriving at investment decisions is not what dramatic departure from the past practices has been introduced by the new policy but how the improved climate compares with investment markets elsewhere. What they seek is comparative advantage among different investment markets.

India offers two basic advantages to foreign investors: One, availability of inexpensive manpower, and two, the existence of the vast domestic market.

As to the former, it is argued that low wage levels may be offset by productivity level to a large extent. For example, notwithstanding sizeable improvement in productivity in almost all the sectors over the last four and a half decades, Indian worker's output a year in 1990, estimated at \$ 3261, was lower than that of even Sri Lanka, Pakistan, Philippines and Bangladesh. Further, industrial relations may have a direct bearing on productivity.

As to the second, the vastness of the Indian domestic market is definitely a great inducement for investment in manufacturing industry in India. However, under the new policy the foreign remittance of profit in foreign exchange has to be fully covered by export earnings. Obviously, remittance of dividends does not take place immediately after the commencement of production operations. Also, the foreign exchange requirements or the remittance of dividends payable to shares held by foreign partners should be limited in amount in comparison with total turnovers. In consequence, such ventures would have only to export a limited part of their products up to the export standard in terms of quality in a short period of time; this would require extraordinary efforts, even if several essential prerequisites are satisfied.

To do so, it may well be found indispensable to import some parts and components.

But the import of parts and components has to be taken care of by purchasing foreign exchanged at the market determined rates. This is again bound to add to production costs. Whether the products thus manufactured are competitive enough for export is a question that requires close examination.

Second, there is the question of exit policy. While the policy is understood to be currently under review by the government and a set of new rules are anticipated to be announced, disinvestment by foreign partners in joint venture in India is at present under a highly restrictive control by the government. Required approvals are both cumbersome and time consuming and the sale price of equity shares to be disposed of by foreign investors are virtually dictated by the RBI. While the underlying thinking behind such a system is not incomprehensible, it has probably been making potential foreign investors more cautious in considering investment proposals in India.

Third, although no one doubts the firm determination of the government at the highest level to vigorously pursue the objectives of economic reform, foreign investors may be interested to know how relevant matter are going to be dealt with by officials in terminal offices, since it directly affects their business operation.

Finally, foreign investors would have to be convinced that the existing comparative advantages are not offset by the comparative disadvantage they have to cope with. They would wish to examine security situation and living conditions affecting foreign residents in India. They would also be concerned with the availability, quality and reliability of local vendors producing parts and components. Likewise, they would have to look into whatever shortcomings may be found in infrastructural facilities and services, including telephone and other telecommunication services, power supply, water supply, and road and railway transportation. The cost of doing business in India continues to be high. The regulatory system is still non-transparent. Contacts count, particularly in areas like oil, power, telecom, financial services and consumer durables.

In short, a number of question have still to be answered before investment decisions may be taken even under the newly created environment.

In short, a number of question have still to be answered before investment decisions may be taken even under the newly created environment.

Check Your Progress 3

- 1) Pick up the correct statements among the following
 - i) India has never allowed foreign capital to enter India.
 - ii) Since 1991 all foreigners are absolutely free to set up shop in India without any permission from the Government.
 - iii) Foreign Exchange Regulation Act, 1973 applies only to foreigners and not to Indians.
 - iv) Foreign capital need be regularly serviced in the form of interest payments.
- 2) Mention the four basic principles that have guided the government's policy towards foreign capital in India.

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24.6 LET US SUM UP

In view of the growth strategy adopted in our plans it was necessary to make use of foreign capital. Foreign capital has been required to fill different types of gaps a developing economy is normally faced with. During the first four decades of planned economic development, foreign resources were sought to be tapped by way of external borrowings. But the overall experience with external borrowings was non-too-happy. Since 1991 there has been a dramatic change in attitude towards foreign capital—foreign capital is now being more freely permitted to set up a shop here. Foreign investment, both direct and portfolio, is a favoured channel of foreign resources now than external borrowings.

24.7 KEY WORDS

Saving Gap: Inadequacy of domestic saving to meet investment needs of the economy.

Foreign Exchange Gap: Inadequate availability of foreign exchange in relation to its requirements.

Technology Gap: The distance between the state-of-art technology and technology available to a developing economy.

Portfolio Investment: Expenditure on the purchase of shares and debentures issued by the corporate sector.

Multinational Corporation: A corporate body which controls income generating assets in more than one country.

Nationalisation: Government take-over of the assets hitherto owned by private enterprise and capital.

24.8 SOME USEFUL BOOKS

Government of India	:	Economic Survey (Annual)
Reserve Bank of India	:	Report on Currency and Finance (Annual)
Vijay Joshi & I.M.D. Little	:	India's Economic Reforms 1991-2001. Oxford University Press

24.9 ANSWERS OR HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) See Sub section 24.2.1
- 2) Thoroughly study Sub-section 24.2.1
- 3) See Sub-section 24.2.1

Check Your Progress 2

- 1) See First Para in Section 24.3
- 2) See Sub-section 24.3.1
- 3) See Sub section 24.3.3
- 4) See Sub section 24.3.4

Check Your Progress 3

- 1) None of the given statements is correct
- 2) See Section 24.4.1

UNIT 25 THEORETICAL ISSUES

Structure

- 25.0 Objectives
- 25.1 Introduction
- 25.2 Concepts of Liberalisation
 - 25.2.1 Measures of Liberalisation
 - 25.2.2 Gains from Liberalisation
 - 25.2.3 Progress of Liberalisation
- 25.3 Concept of Globalisation
 - 25.3.1 What Drives Globalisation?
 - 25.3.2 Is Globalisation a New Phenomenon?
 - 25.3.3 Benefits of Globalisation, when?
 - 25.3.4 Globalisation and State
- 25.4 Concept of Privatisation
- 25.5 Rationale Behind Economic Reforms in India
 - 25.5.1 Components of Economic Reforms
- 25.6 Let Us Sum Up
- 25.7 Key Words
- 25.8 Some Useful Books
- 25.9 Answers/Hints to Check Your Progress Exercises

25.0 OBJECTIVES

This unit will enable you to answer the following:

- 1 The meaning of various terms like 'liberalisation', 'privatisation', and 'globalisation';
- 1 The need and importance of liberalisation in the context of Indian economy;
- 1 Forms of privatisation;
- 1 Globalisation connotations;
- 1 Courses or factors leading to globalization; and
- 1 Rationale behind economic reforms.

25.1 INTRODUCTION

India followed the strategy of planning for her industrialization during the first four decades since the First Five Year Plan in 1951. The plans were implemented under the framework of a mixed economy with a substantial role for the public sector and a state regulated private sector. The former was given the charge of heavy and key industries (due to high gestation period, low rate of return and huge investment requirements), and the latter mainly the consumer goods industries. Four basic objectives, of each successive Five Year Plan were '*rapid economic growth*', '*modernization*', '*self-reliance*' and '*social justice*'. Self-reliance was sought to be created by protecting the home market from foreign competition by high rates of tariff and other forms of restrictions.

The principal instruments of actual policy used to serve the objective of self-reliance were an elaborate industrial licensing system under the *Industries Development and Regulation Act (IDRA)* of 1951 and a protective foreign trade regime. It controlled not only entry into an industry and capacity expansion but also technology, output mix and import content. Moreover, concentration of economic power was controlled by the *Monopolistic and Restrictive Trade Practices (MRTP) Act of 1969*. Finally, the *Foreign Exchange Regulation Act (FERA)* of 1973 was used to regulate foreign investment in India. These acts together created a highly

protected industrial regime where there was neither any significant role of even internal competition nor any strict planning for industrial development.

The Government of India embarked on major economic reforms programme in 1991 with objective of moving Indian economy from a planned framework towards a market oriented one. In pursuing this the government took many policy decisions designed to encourage *fiscal discipline, privatisation of public sector enterprises (PSEs), promote liberalisation and deregulation of domestic financial markets, and foreign investment*. These economic reforms broadly speaking fall into the three generic terms called *liberalisation, privatisation and globalisation*.

25.2 CONCEPTS OF LIBERALISATION

Liberalisation is a process of change in the economic policy. During the past decade, liberalisation has been the hallmark of economic policy throughout the world. Virtually all governments have taken significant steps to widen the role of private enterprise in economic activity, be these the former centrally planned economies of East Europe or Latin American countries or even advanced mixed economies of Europe. In some countries — for example the former centrally-planned economies — this constituted (i) a veritable *change of regime*. For others — for example a number of Latin American countries — it constituted (ii) a major *shift in the philosophy and approach towards fostering development*. In still others—for example some European economies — it constituted (iii) an *adjustment of the role of government in a mixed economy*.

25.2.1 Measures of Liberalisation

A wide variety of specific types of measures have given effect to liberalisation policies. As observed above, there are : (i) a veritable change of regime, as in former centrally controlled economies of East Europe, (ii) a major shift in the philosophy and approach towards fostering development, as in Latin American Economies, or (iii) an adjustment in the role of the government, as in the advanced economies of Europe.

The change of regime has required the disengagement of the State from production of goods and services across virtually the whole economy, and the establishment of the institutional and legal frameworks appropriate to the functioning of a market economy. In economies that rely mainly on private enterprise to organise production, the role of the state has been reduced and revamped. In both controlled transition and market economies these moves have resulted in privatisation of State enterprises. In market economies there has also been extensive reduction in government regulations on private sector activity, and some revamping of regulations to meet emerging needs, as in the areas of finance and environment protection.

25.2.2 Gains from Liberalisation

In all countries, *external transactions have been a key component of liberalisation strategies*. This is because liberalisation of international trade, investment and capital movements can improve allocative efficiency and can bring about greater dynamism in an economy, thus providing faster economic growth. Among the expected benefits of increased openness to trade are as follows:

- i) improvements in innovativeness and productivity of domestic firms due to external competition.
- ii) consumers gain from the wider choice of goods and services and reduced prices resulting from increased international competition and specialisation. Economies open to competition from abroad are also presumed to be efficiency improving.

- iii) producers acquire strength to adjust to adverse external shocks, and less prone to wasteful rent seeking.
- iv) the increased mobility of factors of production — especially capital and, with it, technology — can help a country overcome the dangers of being trapped by static comparative advantage and achieve the continued shifts in its resource endowments required for sustained economic growth and productivity gains.
- v) liberalisation of capital movements means that the link between domestic savings and domestic investment can be relaxed, that is, domestic investment need not be constrained by weak domestic saving behaviour and, conversely, high domestic savings should flow abroad to where they are demanded.

25.2.3 Progress of Liberalisation

Liberalisation has, however, proceeded at different speeds and in different ways as far as trade, investment and finance are concerned. While there are still a number of sectors where liberalisation has been partial—including agriculture and textiles and clothing, which are of particular importance to developing countries — liberalisation of international trade has progressed to an impressive extent.

Investment liberalisation has proceeded in a much more uneven manner. As a rule, changes involved the tempering or removal of obstacles to foreign investors, the establishment of standards for their treatment, and incentives to attract the increased foreign direct investment (FDI), with some steps also taken to ensure the proper functioning of markets. Furthermore, these liberalisation measures were generally accompanied by other measures aimed at improving the investment climate for Transactional Corporations (TNCs), especially by granting better protection to foreign investors.

The liberalisation of trade and FDI regimes has been accompanied by **a liberalisation of financial transactions**. Financial liberalisation is generally less advanced in developing countries, but the pace of change has been much more rapid. Inward investment by non-resident investors is virtually free in a number of developing countries. As for outward transactions, an increasing number of developing countries have adopted capital account convertibility in recent years. *Liberalisation of transactions in foreign currency among residents has gone much further.* Indeed there has been a tendency to encourage residents to hold foreign exchange deposits with banks at home. Liberalisation of trade and investment has been influenced by the expansion and intensification of regional integration efforts.

Check Your Progress 1

1) What do you mean by economic reforms?

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2) Define the term liberalisation.

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3) Distinguish between domestic liberalisation and external liberalisation.

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25.3 CONCEPT OF GLOBALISATION

Globalisation can be defined in several different ways depending on the level we choose to focus on. We can speak of the globalisation of the entire world, a single country, a specific company or even a particular line of business or function within a company.

At the worldwide level, globalisation refers to the growing economic interdependence among countries as reflected in increasing cross-border flows of goods, services, capital and know-how. Clear evidence of this is offered by the following trends:

- 1 Between 1989 and 1999 cross border trade in goods and services grew at an average annual rate of 6.1 per cent almost twice as fast as the average annual growth rate of 3.1 per cent in the world’s GDP during the same period.
- 1 From 1980 to 1999 foreign direct investment grew from 4.8 per cent to 9.4 per cent of the world GDP.
- 1 In 1970, cross border transactions in bonds and equities as a ratio of GDP stood at under 5 per cent in the US, Germany and Japan. By 1999 the respective figures for these countries had soared to 149 per cent, 202 per cent and 87 per cent.

At the level of a specific country, globalisation refers to the extent of the interlinkages between a country’s economy and the rest of the world.

Despite an increasingly global world, not all countries are equally integrated into the global economy. Some key indicators to measure the global integration of any country’s economy are exports and imports as a ratio of GDP, inward and outward flows of foreign direct investment and portfolio investment and inward and outward flow of royalty payments associated with technology transfer.

At the level of a specific industry, globalisation refers to the degree to which a company’s competitive position within that industry in one country is interdependent with that in another country. The more global an industry, the greater is the advantage that a company can derive from leveraging technology, manufacturing progress, brand names and/or capital across countries. Globalisation industries tend to be dominated in every market by the same set of global companies, which coordinate their strategic actions across countries. The athletic footwear industry, for example, is dominated by Nike, Reebok and Adidas. There has been increasing globalisation of the pharmaceutical industry. The data indicate that in this industry cross-border investment has grown faster than cross-border trade.

At the level of a specific company, globalisation refers to the extent to which a company has expanded its revenue and asset base across countries and engages in cross border flows of capital, goods and know-how across subsidiaries. Toyota is a good example of a highly globalised company. At the end of 1998, one third of Toyota global output came from wholly or partially owned affiliates in 25 foreign countries spread over the Americas, Europe and Asia. Furthermore, Toyota exported 38 per cent of its domestic production from Japan to foreign markets and engaged

in significant intra-firm flows among its affiliates. For example, within its south-east Asian regional network, Toyota exported diesel engines from Thailand, transmissions from the Philippines, steering gears from Malaysia and engines from Indonesia. Key indicators of the globalisation of a company are international dispersion of sales revenues and asset base, inter-firm trade in intermediate and finalised goods, and inter-firm flows of technology.

25.3.1 What Drives Globalisation?

Globalisation occurs because specific managers in specific companies make decisions that result in increased cross-border flows of capital, goods and/or know-how. Managers are making such decisions at an increasing rate because globalisation is becoming both more feasible and more desirable. Four trends lie at the core of these developments.

- 1) *An ever-increasing number of countries are embracing the free market ideology*

The shift from a 'planning' mentality to a 'market' mentality by economy policy-makers in industrialised and industrialising nations is well-known and has been well documented.

- 2) *The economic centre of gravity is shifting from the developed to the developing countries*

Economic liberalisation promotes competition, efficiency, innovation, new capital investment and faster economic growth. Not surprisingly, the embrace of market mechanisms has allowed the developing economies of the world to start catching up with the advanced economies. The world's economic centre of gravity is shifting. Virtually any company today that seeks to grow has little choice but to go where the growth is. For the vast majority of the world's top 500 industrial corporation, such growth is rarely in the home market.

- 3) *Technological advances are constantly improving communication*

Cost of air transportation, telecommunication and computers have declined sharply since 1980. The decline in transportation costs has shrunk the cost of shipping goods. In the case of computers and telecommunications, both the sharp cost decline and the recent widespread adoption of technologies such as video-conferencing and e-mail have made co-ordination of far-flung operations not only more feasible but also more reliable and efficient.

- 4) *The opening of borders to trade, investment and technology transfers not only creates new market opportunities for companies but also enables competitors from abroad to enter their home markets. As competition intensifies, it fuels the race among competitors to serve globalising customers, to capture economies of scale, to exploit the cost-reducing or quality enhancing potential of optimal locations and to tap technological advancements wherever they may occur. The result is that globalisation has now become a self-acceleration process.*

25.3.2 Is Globalisation a New Phenomenon?

There is a common presumption that the present conjuncture, when globalisation is changing the character of the world economy, is altogether new and represents a fundamental departure from the past. But this presumption is not correct. Globalisation is not new. In many ways, the world economy in the late twentieth century resembled the world economy in the late nineteenth century. And there is much that we can learn from history, for "there is the past in our present".

25.3.3 Benefits of Globalisation, When?

Prof. Deepak Nayyar has emphasised the fact that, “The benefits of integration with the world economy, through globalisation, would accrue only to those countries, which have laid the requisite foundations for industrialisation and development. This means investing in the development of human resources and the creation of a physical infrastructure. This means raising productivity in the agricultural sector. This means the acquisition of technological and managerial capabilities at a micro-level. This means the creation of institutions that would regulate, govern and facilitate the functioning of markets. In each of these pursuits, strategic forms of state intervention are essential. The countries, which have not created these pre-conditions, could end up *globalising prices without globalising incomes*. In the process, a narrow segment of their population may be integrated with the world economy, in terms of consumption patterns or living styles, but a large proportion of their population may be marginalised even further”.

25.3.4 Globalisation and State, When?

Globalisation has reduced the autonomy of the nation states in economic if not political matter. But there remain some degrees of freedom, which must be exploited in the pursuit of industrialisation and development. The object of any sensible strategy of development in the context of globalisation should be to create economic space for the pursuit of national interest and development objectives.

The process of globalisation has been uneven over time and across space. The inequalities and the asymmetries implicit in the process, which led to uneven development in the late nineteenth century, mostly for political reasons, are bound to create uneven development presently mostly for economic reasons. There is a real danger that some countries would experience an exclusion from prosperity. Such exclusion from the process of development would increase the economic distance between peoples of the world. This would be difficult to sustain in a world where demonstration effects are strong and are reinforced by globalisation, which creates strong aspirations for consumption patterns or life styles. Economic deprivation could accentuate social divides and political alienation.

Prof. Nayyar has rightly concluded that, “the nation states in the developing world cannot wish away these problems. The enthusiasts of globalisation must recognise that we have reached neither the end of the history nor the end of geography. We have not reached the end of history, for the market has met its match in Eastern Europe where it did not improve the living conditions of the people, and the electoral process is returning reformed communist parties to power in country after country. We have not reached the end of geography, for nation states cannot exist in a political vacuum and must strive to improve the economic conditions of their people”. Therefore, strategic, economic and political role for the state must be recognised and performed. Otherwise, there is a possibility of globalisation reproducing uneven development.

However measured, globalisation has occurred and gives no sign of slowing down. Increased globalisation has been viewed with concern. There is a common belief that globalisation harms the interests of workers, especially unskilled workers. Still, despite the overall benefits of globalisation for national welfare, there are adjustment costs for particular groups within a nation: *globalisation produces winners and losers*. The adjustment of those groups of workers displaced by import competition occurs slowly and with significant costs, such as the need to obtain information about new opportunities, relocation, and the loss of firm or industry specific knowledge. Policymakers must keep in mind potential dislocations and ensure that those who are displaced do not become marginalised. In view of this there is a need for retraining programmes to minimise any adverse socio-economic effects

and ease the re-absorption of labour in a growing economy. Resources saved, as a result of any reorganisation, can be used for essential state investment. This could be reinforced by a more efficient and progressive taxation policy to generate resources internally. The major challenge is combining the state with aspects of the market to enhance development under globalisation. However, the nature of interaction between the new phenomenon and economies (at the different levels) poses critical questions for prosperity or marginalisation of developing countries and their poor. In this frame, a critical analytical issue is the extent to which globalisation will undermine the state and its capacity to formulate macro-economic policies (Sumit Roy, 1997).

In this context, Prof. Sumit Roy has further stressed that “Given that India accounts for about a third of the world’s absolute poor, the nature of her integration with the international economy has critical implications for liberalisation and globalisation reducing world poverty. Conceptually, the focus needs to be on domestic and external policies in the frame of globalisation. In this respect, it is essential to devise a typology, which can define the economic structure of a developing country to enable a *fuller understanding of domestic global interaction* and the scope of adapting to the international economy. India can be described as a relatively large, closed or protected economy, in the throes of industrialisation, with trade and foreign investment playing a limited role, low per capita income, and a significant agrarian sector, marked by sharp inequality. In this setting, the focus should be first on ways in which growth, in and through the agricultural sector, can be generated, including investment in infrastructure investment, credit and technology, coupled with institutional mechanisms to reform the highly unequal agrarian structures. Indeed, agricultural growth can be the major force in stimulating domestic demand for industrial goods. This requires significant state interventions to create the skills, technology and training and direct and indirect forms of support, including subsidised credit, to shape the industrialisation process, in conjunction with using the private sector in an appropriate manner to guide the latter. Such thrusts need to be complemented by employment and poverty reduction policies to provide social support and human capital, especially in the context of transition to a market economy. Secondly, policies on the external front need increasingly complement to those on the domestic front embracing ways in which foreign direct investment and portfolio flows can be accommodated with the overall development frame. These include their role in stimulating both domestic and export-led growth. However, such an orientation requires careful evaluation of the need for, and the scope of making the labour market more flexible, increasing public and private sector efficiency, selective privatisation, or even closing down ailing public enterprises”.

Liberalisation, and increasingly globalisation, is exposing the Indian economy to major changes which demand pursuing a number of goals, including macro-economic stability, growth and reduction of poverty. The extent to which India will be able to reconcile such goals and minimize any negative effects of the new thrust is rooted in resolving pre-liberalisation economic problems. In this frame, the main challenge for policy-makers is how to combine the state with aspects of the market in order to stimulate growth and reduce poverty. The state has to play a forceful role by reexamining the role of agriculture in economic growth, the scope of reforming the unequal agrarian structure and the nature of investments in the agricultural and the industrial sector. This has to be supported by appropriate policies to reduce poverty including meaningful employment programmes coupled with effective nutrition, health and education policies to fulfil basic needs and build human capital. These thrusts need to be combined with selective liberalisation policies, which can make the economy more internationally competitive.

The analysis shows that the state has to play a major role in fulfilling such goals

while creating the conditions for the market to function more effectively in line with goals of growth and poverty reduction, underpinned by making the economy more competitive internationally. This requires reassessing the role of agriculture in stimulating economic growth, including reforming the structure and technological support and supporting key industries, coupled with relevant employment programmes and investment in human capital exemplified by nutrition, health and education. These thrusts need to be combined with the strategic liberalisation: through measures such as making the public and the private sector more efficient to compensate for deficiencies in specific domestic and export-sectors.

In summary, it is essential to examine the ways in which national (micro sector and macro) and international global policies could be used to stimulate growth and reduce poverty in developing countries, particularly in south Asia and Africa. This requires reformulating liberalisation policies in line with the priorities of developing countries to maximise the potential benefits of globalisation.

Check Your Progress 2

1) What do you mean by globalisation ?

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2) Mention the four factors responsible for increasing globalisation.

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3) What are the likely benefits of globalisation ?

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25.4 CONCEPT OF PRIVATISATION

Privatisation means different things to different people. In the narrow sense, it means transfer of ownership from the public (anonymous bureaucrats and politicians) to the private (known individual) hands. In the wider sense, it means infusing competition, i.e., marketisation or liberalisation, where demand and supply are allowed to play their free roles instead of being controlled or directed by any centralised authority. In between these two extreme views lies one version, where a major or a small part of the equity of PSUs is sold out by the government to the private sector, a part of some of the PSE’s activities is contracted out to the private sector, a hitherto reserved sector or industry is opened for the private sector to operate, an erstwhile public service is withdrawn, memorandum of understanding (MOU) is signed between the government and the management of the PSE, and so on. The work over all these options of the versions has been practiced with varied results. Besides, privatisation is known by different names around the world. For example, it is called “de-nationalisation” in the U.K. “dis-incorporation” in Mexico, “prioritisation” in Australia, “asset sales program” in New Zealand, “transformation” in Thailand, “people-isation” in Sri Lanka, and “dis-investment” in Pakistan.

In 1983, the Penguin Dictionary of Economics defined privatisation to be :

(a) “the sale of Government owned equity in nationalised industries or other commercial enterprises to private investors with or without the loss of Government control of the organisation;” (b) privatisation as a concept which encompasses denationalisation (where Government sold its holding); (c) deregulation (where legal barriers were thrown away with enabling private enterprises to compete) and (d) franchising (where for a defined period, contracts were awarded – here the private sector produced and the public sector provided them to the consumers).

In the latter edition of the “Dictionary of Economics” privatisation got redefined, apart from including sale of Government owned equity in the organisation, “other types of privatisation may take the form of deregulation of a state supported cartel or the subcontracting to the private sector of the work principally carried out by state employees. The major challenge is combining the state with aspects of the market to enhance development under globalisation. The poor should play an integral role shaping this process.

Thus, privatisation covers a wide continuum of possibilities, between denationalisation at one end and market discipline at the other:

- 1) Transfer (sale) of public assets (firms, parts of firms-‘partial privatisation’) or individual assets to private persons.
- 2) Transfer of individual public supply tasks to private persons (e.g., contracting out); also functional privatisation.
- 3) Transition to private business management in the sense of profit-oriented management.
- 4) Extension of the margin of autonomy for the management of public enterprises.
- 5) Debureaucratisation, in the sense of freeing from formal provisions and administrative instructions.
- 6) Decentralisation, in the sense of the delegation of authority to decide, plan and act.
- 7) Aligning the conditions under which public enterprises act on those which apply to private firms.
- 8) Promotion of competition by market processes (or market-like systems of incentives).
- 9) Dismantling of such state monopolies as are justified by referring to the traditional argument of ‘natural monopoly’.
- 10) Adoption of wages and working and employment conditions to those applicable to the private sector : privatisation of jobs.
- 11) Unilateral reduction of the nature and scope of public services.
- 12) Privatisation of public resources.
- 13) Privatisation of public revenue: conversion of revenues from public investments into private profits, or private access to public capital and its revenues.
- 14) Denationalisation: pressures of international competition; increasing activity in foreign markets; take-over of capital shares and rights of disposal by foreigners.

25.5 RATIONALE BEHIND ECONOMIC REFORMS IN INDIA

When the new government assumed office in June, 1991 the task before it was two fold:

- 1) to restore macro-economic stability by reducing fiscal and balance of payments deficits, and

- 2) to complete the process of economic reforms, i.e., structural adjustments which for the preceding ten years had been conducted on a partial basis, gradually and intermittently.

The announced aims of the current economic reforms strikes a revolutionary note. Reforms intended to achieve the following:

- i) stabilisation and macro-economic balance through fiscal, monetary and exchange rate policies;
- ii) a liberalised trade regime with no import licensing and tariff rates comparable to other industrialising developing countries;
- iii) an exchange rate system which makes the rupee convertible, at least for current account transactions of the balance of payments;
- iv) a competitive financial system with sound regulations;
- v) an industrial sector free of many controls; and
- vi) an autonomous, competitive and streamlined public enterprise sector.

Since there was overcentralisation of power of decision-making over investment, product-mix and pricing and formal and informal distribution control, public sector enterprises did not have enough autonomy for commercial viability. On the other hand, since the home market was protected, private enterprises were not compelled to improve the efficiency and quality of their products. Policy-makers believed that the slower and inefficient growth experienced by India during the last 40 years was the result of a tight regulatory system over the industrial and foreign trade sector of the economy. This had thus created an economy of subsidy and inefficiency. The new economic policy (NEP), of which the new industrial policy (NIP) of 1991 is the most important part, was launched against this background. The NIP of 1991 was a major part of the broad structural adjustment programme in India, which was specifically set in motion with a declared objective of transforming the basic nature of functioning of the economy in lieu of planned economic development over the period from 1951 to 1990.

Liberalisation is a process of economic policy changes specifically initiated from 1991 as declared state policy. It had its own economic, political and international compulsions. Indian economic reforms in their current form had been initiated with the help of financial support from the International Monetary Fund (IMF) and the World Bank, and lately also from the Asian Development Bank (ADB). This reform package (popularly called 'new economy policy') covered the areas of *macro-economic stabilisation policies and structural adjustment policies*.

25.5.1 Components of Economic Reforms

The major policy changes which are called economic reforms, or liberalisation in a nutshell are :

- 1) *Macro-economic stabilisation measures* which include : (a) management of the balance of payments crisis, (b) fiscal deficit management, and (c) monetary policy correctives.
- 2) *Major sectoral structural adjustment reforms*, which include : (a) trade policy (and associated policy) reforms, (b) industrial policy reforms, (c) policy reforms relating to the public sector, (d) policies for attracting foreign direct investment, technology and equity participation, (e) administrative reforms for faster investment approvals, (f) tax structure reforms, (g) tariff reforms for both capital goods and consumer goods, (h) financial sector reforms, (i) reforms in agriculture and related areas.
- 3) *Measures to share social costs of reforms* which include reform of the public distribution scheme (PDS), establishment of a national renewable fund (NRF).

The new industrial policy (NIP) of July 1991 effected some very fundamental policy changes such as near abolition of licensing, easing of the rigors of MRTP and FERA, reduced list of industries to be reserved for the public sector, automatic approvals of foreign technology agreements and 51 per cent foreign equity, defining a new role of state electricity boards, private investment in infrastructure, protection of consumers interest, new liberal location policy for industry, freer import of capital goods, reduced tariff for consumer goods, transport subsidy for backward areas, national renewal fund, de-regulation in small scale industrial units, and radically liberal policy measures for attracting FDI, new technology and NRI investment. The sole objective of these highly liberalised policy measures, was to enhance *productivity and efficiency* in Indian industries by creating a *competitive environment*.

Check Your Progress 3

1) What do you mean by privatisation ?

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2) Is denationalisation alone privatisation ?

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3) Describe in brief the circumstances under which the economic reforms programme was introduced in India.

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4) What are the aims of the economic reforms programme in India?

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25.6 LET US SUM UP

The Government of India embarked on major economic reforms programme in July, 1991 with the objective of moving Indian economy from a planned framework towards a market oriented one. In this process, we have explained in this unit, the concepts of liberalisation, privatisation and globalisation. Liberalisation is process of change in economic policy suitable for operation of market forces. Globalisation means movement of goods, capital, technology and labour across the globe. As regards India there is need to reformulate liberalisation policies in line with the priorities to maximise the potential benefits of globalisation. Privatisation can be taken in two senses: the narrow sense and the wider sense. In the narrow sense

it means transfer of ownership from the public to the private hands. In the wider sense, it means infusing competition i.e., marketisation, where demand and supply are allowed to play free roles instead of being controlled or directed by any authority.

25.7 KEY WORDS

Denationalisation: Transfer of ownership and capital of a production units hitherto owned by the state to private enterprise.

Globalisation: Removal of barriers on the free flow of goods, services and capital

Liberalisation: Policy whereby different controls and restrictions placed on industry are sought to be removed.

Privatisation: Assigning increasing role to private capital and enterprise.

Protection: Policy whereby domestic producers are protected against foreign competition by raising of tariff walls and non-tariff barriers.

25.8 SOME USEFUL BOOKS

Gupta, Anand P (1996) "Political Economy of Privatisation in India", *Economic and Political Weekly*, September, 28.

Kalirajan, K.P. and R.T. Shand (1996), "Public Sector Enterprises in India: Is Privatisation the only answer?", *Economic and Political Weekly*, Sept. 28.

Gupta, G.S. (1996), Privatisation : Theory, Issues and Practices (in *National Workshop on Economic Liberalisation: Consumer, Investor and Environment Interest*, proceedings of a workshop, November 1-3, Consumer Education and Research Centre, Ahmedabad).

Nayyar, Deepak (1995), "Globalisation, *The Past in our Present*" (Presidential address at the 78th Annual Conference of Indian Economic Association, Chandigarh, December 28-30).

Oman, Charles (1995), "Globalisation and Regionalisation: the Challenge for Developing Countries", OECD, Paris.

Roy, Sumit (1997), "Globalisation, Structural Change and Poverty : Some Conceptional and Policy Issues". *Economic and Political Weekly*, Aug. 16-30.

United Nations (1996), UNCTAD's Secretary General's Report on Globalisation and Liberalisation, UN, USA, New York.

Shonughtyer, Mathew J and Philip Swagel (1997), "Does Globalisation Lower Wages and Export Jobs? IMF, Washington. D.C; USA

25.9 ANSWERS/HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) See Section 25.1
- 2) See Sub-section 25.2.1

3) See Sub-section 25.2.2

Check Your Progress 2

1) See Section 25.3

2) See Sub-section 25.3.1

3) See Sub-section 25.3.3

Check Your Progress 3

1) See Section 25.4

2) See Section 25.4

3) See Section 25.5

4) See Section 25.2

UNIT 26 PRIVATISATION IN INDIA

Structure

- 26.0 Objectives
- 26.1 Introduction
- 26.2 Reasons for Poor Performance of Public Enterprises (PSEs)
- 26.3 Privatisation
- 26.4 Rationale behind Privatisation
 - 26.4.1 Arguments in Support of Privatisation
- 26.5 Techniques of Privatisation
 - 26.5.1 Modes of Privatisation
- 26.6 Areas of Privatisation
- 26.7 India's Privatisation Experience
 - 26.7.1 Disinvestment Strategy in Public Sector Undertakings in India
 - 26.7.2 Problems Associated with Privatisation
- 26.8 Let Us Sum Up
- 26.9 Key Words
- 26.10 Some Useful Books
- 26.11 Answers/Hints to Check Your Progress Exercises

26.0 OBJECTIVES

This unit explains privatisation debate in India. After studying this unit, you will be able to answer the following:

- 1 Reasons behind the debate of privatisation ;
- 1 Why are public sector enterprises (PSEs) in India so inefficient ?
- 1 The environment under which PSEs are working in India;
- 1 Rationale behind the privatisation;
- 1 Various techniques of privatisation;
- 1 Identifying areas of privatisation in India;
- 1 Progress towards privatisation; and
- 1 Problems in India's privatisation experience.

26.1 INTRODUCTION

No country in the world has lately been immune from the trend of restructuring of its economy because of a compelling combination of circumstances. India at one time had a huge public enterprise sector. It consisted of nearly 1,300 enterprises, owned and managed by the central government, state and union territory governments, and local governments in the country. These had dominated many sectors of the economy by including: surface irrigation; water supply in rural and urban areas; railways; river transport; ports; postal services; telecommunications; mining (including hydrocarbons and coal); one-third of registered manufacturing (particularly steel, petrochemicals, capitals goods, pharmaceuticals, fertilizers); power generation and distribution; oil and gas production and marketing; air transport; one-third of bus transport; storage; and banking and insurance. As you may be aware, some of these sectors have been transferred to private sector recently.

26.2 REASONS FOR POOR PERFORMANCE OF PUBLIC SECTOR ENTERPRISES (PSEs)

Why are public enterprises in India so inefficient? The answer lies in the *environment that public enterprises in India operate in*, and in effect this environment has on

the *public enterprise managers' incentives* to develop new, better and less expensive products, develop new markets, minimise capital and current costs, and maximize profits. Descriptions which illustrate this environment include: the government's deep involvement in the actual management of public enterprises, with the *concerned administrative ministries'* tendency to function as if they were a kind of super management on top of the Board of Directors; *Parliament's involvement in public enterprises'* affairs in several ways, including through numerous *questions and enquiries* ranging from questions of overall performance and policy issues to the minutest details of *day-to-day functioning*; and expansion of the horizon of *Article 26 of the Constitution* to treat even industrial, manufacturing and commercial public enterprises as '*state*' and thereby subject them to the various obligations that go with such a treatment.

26.3 PRIVATISATION

'*Privatisation*, is a term that is employed to convey a variety of ideas. The idea that it most prominently suggests is '*denationalisation*' (in the sense of transferring the ownership of a public enterprise to private hands). Another idea in vogue is '*liberalisation and deregulation*'; which unleash forces of competition. In this context, the concept of privatisation becomes wider to be understood, not merely in the structural sense of who owns an enterprise, but in the *substantive sense of how far the operations of an enterprise are brought within the discipline of market forces*. For convenience, a distinction could be made between *micro* (roll back as producer state); *macro* (roll back of state as producer, regulator, facilitator, and welfare provider); and *mega* (roll back in all dimensions including non-economic regulations). Micro privatisation referring to producer state essentially deals with public enterprise.

26.4 RATIONALE BEHIND PRIVATISATION

A few factors seem to have brought the issue of privatisation on the forefront. They are as under:

- 1) The *monopoly* status of public sector enterprises (PSEs) bred inefficiency.
- 2) *Lack of competitiveness* affects PSEs performance very adversely.
- 3) *Bureaucracy* was also responsible for poor performance of PSEs. It was certainly not always upto turning such enterprises around.
- 4) Restructuring of the PSEs by way of privatisation became very *common in developed* countries like UK and U.S.A.
- 5) A lot of *intellectual discussion and debate* started on privatisation all over the world and pressure of public opinion also exerted influence.
- 6) Some aid giving agencies even started forcing the pace by linking aid with privatisation.
- 7) Suggestions from management of public sector enterprises themselves led to fresh thinking towards privatisation.

26.4.1 Arguments in Support of Privatisation

Advocates of privatisation claim that it will lead to an *improved economic performance*. *The reasons for such a view are* the following:

- i) *It will improve the environment* public enterprises operate in and thereby

strengthen their managers' incentives to be efficient. These in turn can contribute to making the Indian economy substantially more efficient.

- ii) Privatisation may create conditions for *substantial additional investment*, which may help in generation of a large number of productive employment opportunities, which in turn may contribute to removing poverty.
- iii) *Consumers may gain* from privatisation.
- iv) Privatisation can be of help in *reforming public enterprises*. These enterprises are engaged in innumerable activities such as manufacturing steel; building ships; generating and distributing electric power; running domestic and international airlines; exploring, producing and refining oil; operating domestic and international telecom network; running hotels; manufacturing polyester film; making condoms; producing fruit pulp and juice; running banks as also life and general insurance and electronic entertainment business; and so on. *Privatisation will allow the government to concentrate on things, which it has failed to do, but which it alone can do.*
- v) Privatisation can be of *major help in reducing India's huge public sector deficit*. This can happen in three ways: (a) the proceeds from the sale of public enterprises can be used to finance the public sector deficit, (b) the proceeds can be used to *reduce the outstanding public debt*, both domestic and external; and (c) will reduce the *burden of interest payments* and thereby the deficit.
- vi) Privatisation is expected to ensure generation of revenue to finance *social infrastructure and eradication of poverty*.

Check Your Progress 1

1) Give four reasons responsible for poor performance of public sector units in India.

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2) Distinguish between 'micro' and 'macro' privatisation.

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3) Mention four reasons in favour of privatisation in India.

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26.5 TECHNIQUES OF PRIVATISATION

Various experts have categorised privatisation into the following techniques:

- 1) *Public offering of shares:* all or part of a shares of the public limited company are offered for sale to the public as a running concern.
- 2) *Private sale of shares:* all or part of the shares of a state owned enterprise are sold to a private individual or a group of purchasers in the private corporate sector.
- 3) *New private investment in a state owned enterprise:* primary share issues are subscribed by the private sector or public.
- 4) *Sale of Government or state enterprises assets:* the assets of the public sector are sold as private sale instead of shares.
- 5) *Reorganisation or fragmentation into smaller units:* a holding company with a number of subsidiaries can be privatised separately.
- 6) *Management/Employee buy out:* the management or the employees acquire the controlling interest in the unit in which the shares are purchased on credits extended by Government or financial institutions.
- 7) *Lease and management contract:* the ownership remains with the Government while the lessee assumes full responsibility for operations and maintenance. Under management contract, the owner pays for the management and operational control.

26.5.1 Modes of Privatisation

In terms of policy initiative in the Indian context, privatisation is generally conceptualized in three broad ways, viz., *greenfield privatisation*; *cold privatisation* and *disinvestment or divestiture* (in particular distressed privatisation). The features of each of these modes are summarized below:

1) Greenfield Privatisation

Under this method the *barriers to entry*, including ‘*reservation*’ for the public sector are removed and private sector is encouraged to enter. Under this mode actions move on the following lines:

- a) removing barriers of entry for the private sector and it is allowed to do economic activity hitherto reserved for public sector;
- b) not allowing any new investment or new activities on the part of the public sectors agencies;
- c) preferential treatment being given to the private sector for increasing the level of its activities;
- d) in enterprises where private and public sectors have been functioning side-by-side, such as the *joint sector*, the relative share of the private sector may be increased.

2) Cold Privatisation or Proxy Privatisation

Under this method public enterprise made to behave as private enterprises by:

- a) giving financial autonomy to seek financial assistance directly from the bank/capital market;
- b) giving autonomy to make investment decisions;
- c) entering into a *Memorandum of Understanding (MOU)* for providing freedom to fix prices, output etc.;
- d) making subsidies explicit;

- e) taking recourse to corporations, i.e., converting a department enterprise into a corporate entity to ensure distancing.

3) **Disinvestment or Divestiture**

Disinvestment or divestiture is effected by *sale or transfer of shares* held by the government directly or through its agencies in enterprises (i.e., public activities organized under enterprise form) to the private sector. When a loss-making enterprise is turned over to the private sector because the government can no longer support and sustain it, this can be termed '*distressed privatisation.*'

It may be mentioned that alternative approaches are possible to analyzing techniques. For instance the techniques can be divided into:

- a) privatisation of *financing* (that is charging for government services);
- b) privatisation of *production or provision* (contracting out construction and maintenance or giving franchises to private sector);
- c) *denationalization* or *load-shedding* (that is sale of shares or assets held by government); and
- d) liberalization (removing restrictions and promoting competition).

Check Your Progress 2

- 1) Mention five techniques of privatisation.

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- 2) Distinguish between '*greenfield privatisation*' and '*proxy privatisation*'.

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- 3) Define the term '*disinvestment*'.

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26.6 AREAS OF PRIVATISATION

Privatisation might be worth trying in a few cases as a means of shedding some unimportant or *low-priority activities* which need not have been in the public sector at all in the first instance; and that it might also be appropriate to try

privatisation, if possible — *as an alternative to closure-in the case of loss-making enterprises* for which a package of remedial measures within the fold of the public sector is not feasible. As for privatisation as a solution to the public sector efficiency problem, it does not really solve but evades the problem: it would surely be much better to try a partial privatisation of style before attempting the privatisation of ownership.

26.7 INDIA'S PRIVATISATION EXPERIENCE

26.7.1 Disinvestment Strategy in Public Sector Undertakings in India

Disinvestment in the state owned enterprises has been adopted by both developed and developing countries during the last two decades as part of market oriented reforms. The process of disinvestment in equity was initiated by the Government of India (GOI) during 1991-92 as part of a package of Public Sector Undertaking (PSU) reform. For framing proper strategies of disinvestment of shares of PSUs, a Committee under the chairmanship of Dr. C.Rangarajan was appointed in 1993 by the Government of India. Further, Government of India constituted a five-member *Public Sector Disinvestment Commission* in August 1994 under the Chairmanship of Shri G.V. Ramkrishna for drawing a long-term disinvestment programme for the PSUs referred to the Commission. The Commission had wide ranging terms of reference and was asked to determine the extent of disinvestment in each PSU, the modalities of disinvestment and the order in which the process would be undertaken. The long-term strategy of the Disinvestment Commission had four objectives : (i) strengthen PSUs, where appropriate, in order to facilitate disinvestment, (ii) protect employees' interest, (iii) broad base ownership, and (iv) augment receipts for the government.

As a broad approach, the Commission was in favour of prior restructuring of the PSUs before disinvestment, based on global experiences that restructuring before disinvestment enhances share value and maximizes share proceeds.

The Commission was in favour of adopting a case-by-case approach in terms of unit specific disinvestment strategy after taking into account various aspects of the units, e.g., industry category, competitive position and profitability. Accordingly, the Commission broadly classified the PSUs into two categories for disinvestment. viz., *the core group and the non-core group*. The PSUs in the *core group* are defined as having a considerable market presence. In these PSUs, as the private sector is yet to mature fully, the public sector disinvestment would be limited to a maximum of 49 per cent for the time being. *The non-core group* industries are defined as the units where private sector players have already made huge investments. With the aim of enhancing the intrinsic value of PSU shares, the Disinvestment Commission recommended that the core as well as non-core PSUs should be restructured prior to disinvestment.

The Commission had made recommendations for a graded delegation of autonomy for three categories of PSUs, namely, '*general autonomy to all PSUs, additional powers to moderate performers and additional autonomy to strong performers*'. Further, it had made the following recommendations regarding the policy decisions to be delegated to the Board for greater autonomy of all the PSUs.

- 1) Professionalising the Board through outside recruitment.
- 2) Provisions of elected Directors to represent minority shareholders.
- 3) Selection of top management without having to go to the Appointment Committee of the Cabinet.
- 4) Rationalising salaries and incentives of top management for attracting talents.

- 5) Autonomy in price fixation of products and services.
- 6) Accountability through performance assessment at regular intervals.
- 7) Setting up of pre-investigation Board for evaluating projects in terms of commercial viability.
- 8) Strengthening the investor interface by transparent system of information disclosure.

While the above recommended areas of autonomy would apply to all the PSUs, the Boards of '*moderate performers*' among the PSUs would have additional power to transfer assets to a subsidiary and also have freedom of investment decisions subject to certain conditions. The investment limits for these PSUs could be fixed on the basis of the company's turnover and requirement of funds in the medium term. Further, the '*strong performers*' among PSUs have been recommended by the Commission to have power to form joint ventures without prior approval of the Government and have full freedom with regard to investments subject only to the condition that these projects are appraised and financed by banks or institutional lenders or where the total requirements of funds are met from internal accruals.

For granting autonomy, nine well-performing PSUs under the core category have been identified by the Government. These PSUs, popularly known as '*navratnas*', are BHEL, BPCL, HPCL, IPCI, IOC, NTPC, ONGC, SAIL and VSNL. The Union Cabinet has approved the autonomy package for these nine high performing PSUs, accounting for nearly 75 per cent of the profits of the entire PSUs, giving them total freedom to incur capital expenditure, raise resources and enter technology contracts. The Government also announced a package of financial and operational autonomy for 97 profit making public sector enterprises (called '*mini-ratnas*') other than the '*navratnas*'. However, the degree of financial freedom to these PSUs will be less than granted to the '*navratnas*'.

For ensuring smooth implementation, the Commission recommended the formation of a *Standing Empowered Group (SMG)*, comprising the Department of Public Enterprises, Administrative Ministry of the PSU along with the CEO of the concerned PSU. The group is intended to provide continuity to the process of disinvestment in various PSUs. However, the Disinvestment Commission has recommended only companies to be disinvested and the mode of disinvestment rests with the Government. The Disinvestment Commission has also evolved guidelines for modality of sale including retailing PSU shares to small investors and employees and selection of intermediaries that would lead to transparent and competitive procedures for disinvestment. The Commission also made specific recommendations for disinvestment in respect of a number of PSUs in its various reports. Thus, the Disinvestment Commission set the ground rules and the basic parameters for disinvestment. We can learn from experience and modify the modalities as we go along.

As part of the country's economic reforms programme, the *Sick Industrial Companies Act (SICA)* 1985 was amended in December 1991 to bring public enterprises under the purview of the *Board for Industrial and Financial Reconstruction (BIFR)*. Consequently, until the end of 1998, 138 cases of sick public enterprises were registered with the BIFR. The BIFR has recommended winding up in 14 of these cases. But none of these public enterprises has been wound up so far. There have been cases of public enterprises whose control and management has been transferred to the private sector, but a substantial proportion of their equity, enough for managerial intervention, has continued to remain in the public sector. *India's privatisation experience also includes cases of complete or true privatisation, under which the control and management of a public enterprise are transferred to the private sector (though some public sector equity holding, without managerial intervention, may continue).*

A major initiative for turning India towards privatisation needs to be launched. In this context certain steps required to be taken are:

- i) The people will have to be convinced that, given the extremely high opportunity costs, India cannot afford public sector misadventures in areas like, running hotels, manufacturing polyester film, making condoms and producing fruit pulp and juice). That properly belongs to the private sector.
- ii) The Government should announce a properly structured and articulated privatisation policy for India. The policy will need to clearly address at least the following issues: *why privatise?*; *what to privatise?*; when to privatise?; which organization will serve as the nodal agency for privatisation and what will be its composition, powers and responsibilities? What are the institutional mechanisms that will be put in place to gain public enterprise employees' support for privatisation?; and what is the role that India would like foreign investors to play in its privatisation programme?
- iii) Privatisation is a difficult process, it involves reconciling the government's political objectives and the business needs of given public enterprise and tap generate efficiencies. It will therefore be absolutely necessary to come up with training programmers designed to equip selected public enterprise managers and government officials in India with the knowledge and skills required for managing the various component of the privatisation process.
- iv) The proposed initiative will address the issue of evaluating India's post-privatisation experiences. This will involve rigorous work on estimating the impact of privatisation on: (i) *efficiency and investment*, (ii) *public finance and balance of payments*, (iii) *employment*, (iv) *management practices and strategies*, and (v) *managers' skills, attitudes and behaviours*. Evaluations of post-privatisation experience along these lines may generate ideas that may help India maximize the gains from privatisation.

26.7.2 Problems Associated with Privatisation

Privatisation is not a very easy option. Problems are there and it is always not very easy to overcome them. Some of the major problems (see G.S. Gupta, 1996) are:

- 1) choice of PSEs for privatisation
- 2) opposition from employees
- 3) pricing of assets/or equity
- 4) extent of disinvestment
- 5) mode or preference of selling
- 6) political instability

These problems are very complex and it is not possible to find out an easy way out. The question of permission to be given to foreign investors, particularly in the consumer goods sector, is very difficult to decide. Disinvestment should be done, but in favour of whom? Should it be in favour of financial institutions or to be sold to general public? *If management control is retained by the Government then improvement in efficiency will be doubtful.* Sometimes, it is also feared that owing to political considerations the very policy of privatisation might to reversed. There has been sustained pressure from the organisation of employees against the policy of privatisation and disinvestment.

Check Your Progress 3

- 1) State in brief the disinvestment strategy as being followed in India.

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2) Make suggestions for delegation of more autonomy to PUSs in India.

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3) Highlight the major problems associated with privatisation in India.

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26.8 LET US SUM UP

Although the academic debate on en masse privatisation is still going on, the government has already made moves in that direction, since it is realised that without it the pace of liberalisation and marketisation of the economy would not attain the take off stage. Some of these are: (i) permitting the entry of the private corporate sector in such core sectors as steel, telecommunications, power, airlines, ports etc; (ii) no fresh budgetary support for public enterprises; (iii) issue of equity to the public by the identified PSUs; (iv) outright of sale identified PSUs. As the momentum picks up there is a need to formulate a comprehensive privatisation policy. The policy needs to address at least the following issues: why privatise? what to private? when to private? which organisation will serve as the nodal agency for privatisation and what will be its composition, powers and responsibilities? What are the institutional mechanisms that will be put in place to gain public enterprise employees’ support for privatisation? And, what is the role that India would like foreign investors to play in its privatisation programme?

Privatisation does not remove problems from the public domain. Monopolies require regulation, can be water and electricity. The complex political interests and economic incentives within the country militate against the process of privatisation. The process of disinvestment is going on since 1991 and yet it remains more or less where it started. If meant to be meaningful, privatisation need to be pursued more systematically within a carefully designed framework of action.

26.9 KEY WORDS

Denationalisation: Mirror image of nationalisation, i.e., transfer to private control of equity hitherto owned by the state.

Departmental Enterprises: Those production units, which are organised as a department of a government.

Disinvestment: Selling of the government equity, partially or wholly, to private interests.

Government Company: An undertaking in which a government owns 50 per cent or more equity.

Sell-off: Transfer of total or majority ownership of the government in a unit to private enterprise.

26.10 SOME USEFUL BOOKS

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Gupta, G.S. (1998): Privatisation : Theory, Practices and Issues, *The Indian Economic Journal*, Vol. 46, Oct.-Dec. (No.2).

Ramanadhan, V.V. (1989): *Privatisation in Developing Countries* (chapters 1, 8 and 20), Routledge, London.

Dingra, I.C. (2000): *The Indian Economy: Environment & Policy*: Sultan Chand & Sons, New Delhi (Chap.19).

Tandon, Pankaj (1997): Efficiency of Privatised Firms : Evidence and Implications, *Economic and Political Weekly*, December, 13.

26.11 ANSWERS/HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) See Section 26.2
- 2) See Section 26.3
- 3) See Section 26.4

Check Your Progress 2

- 1) See Section 26.5.
- 2) See Sub-section 26.5.1
- 3) See Sub-section 26.5.1

Check Your Progress 3

- 1) See Sub-section 26.6.1
- 2) See Sub-section 26.6.2
- 3) See Sub-section 26.6.3

UNIT 27 GLOBALISATION OF INDIAN ECONOMY

Structure

- 27.0 Objectives
- 27.1 Introduction
- 27.2 Globalisation and Economy
- 27.3 Benefits of Globalisation
- 27.4 Globalisation and Indian Industries
- 27.5 Policy Changes Since 1991
- 27.6 Globalisation of Financial Markets
- 27.7 Problems of Globalisation
- 27.8 Efforts Required for Globalisation
- 27.9 Let Us Sum Up
- 27.10 Key Words
- 27.11 Some Useful Books
- 27.12 Answers/Hints to Check Your Progress Exercises

27.0 OBJECTIVES

As you go through this unit, you will come to understand and appreciate the implications involved in globalisation of Indian economy. This unit is expected to help you answer the following:

- 1 Is globalisation a reality and has India been able to adopt this;
- 1 Examine the implications involved in the process of globalisation;
- 1 Analyse the impact of globalisation on Indian economy;
- 1 How do different sectors prepare to face the challenge of globalisation;
- 1 What policy measures need to be followed for globalisation of Indian economy; and
- 1 What conditions are required to have the best possible results?

27.1 INTRODUCTION

In recent years there is no special phenomenon that attracts more attention in mass media and in the scientific public than globalisation. For nearly a decade the nation's preoccupation has been with economic reforms. The enthusiasm and the excitement over '*deregulation*', '*liberalisation*' and '*globalisation*' remain undiminished since the time the three buzzwords entered the scene. These terms are frequently used in any general discussion. The common person seldom understands the exact import of these terms but (s) he knows that they imply radical changes in life. The literate population surmises that *liberalisation* indicates a reduction of rigors in laws and procedures to permit more efficient conduct of business while *globalisation* stands for *removal of protective barriers against free flow of trade, technology and investments among countries*. It is also recognised that the insularity and sheltered culture of industry and trade have to give place to a competitive environment, which would demand basic adjustments by the population, be they manufacturers, traders, workers or consumers.

How this change is to be managed with the least pain and with maximum benefit is the major concern. There have been innumerable seminars and workshops on the three related terms in general and globalisation in particular. However, the ideas and the basic vision behind the dominant policy choices made since 1991 have not been

explained in simple terms by those professing to understand the policy choices. Policy makers and seminar speakers often assume that the objectives of globalization are understood by all. They, therefore, dwell on the ways and means to achieve globalization.

27.2 GLOBALISATION AND ECONOMY

Globalisation has some very clear features (K.L. Chugh, 1992). Globalisation puts an emphasis on consumer concern and encourages competition. *It is co-operative venture, where organisations and people complement and supplement each other in the service of the consumer.* It is for this reason, that one now sees the international trend to source raw material from one country, process it in another country and then market it worldwide. As a result, globalisation helps to synergies the roles of each country. Globalisation leads to quality assurance and it is as a guarantee of their quality that manufacturers brand their products. *It means a borderless world where there is a free exchange of money, ideas and expertise, fostering partnerships and alliances to serve the consumer best.* Globalisation relies on the quality of people. No initiatives, no innovation, no solutions are possible without outstanding people. The quality and training of people, their vision and their commitment, is the very foundation of globalisation.

Globalisation is the reversal of business from a macro to a micro point of view. What matters is the contact and collaboration between individuals and firms in various countries. Globalisation is complete decentralization of location. It will internationalise human resources and remove geographical boundaries.

The policy of globalisation emphasises that export sector should form an important ingredient of the national macro-economic aggregates. When exports form an important economic aggregate, the industrial growth to a substantial extent becomes dependent upon the export sector. When industrial production is attached to the export sector, indirectly the other sectors of the economy specially banking and services sector are also integrated with the export sector. Finally, since exports are dependent on the GDP growth of the major trading partners, the domestic economy cannot grow at a rate much different from that in the world economies.

27.3 BENEFITS OF GLOBALISATION

What are the benefits of globalisation? Some of the benefits are as follows:

- i) Improved resource allocation due to the presence of a competitive environment
- ii) Exposure to international economies would lead to the availability of better technology, inputs and intermediate goods
- iii) Transfer of know-how and economies of scale

Thus, globalisation implies a regime of perfectly competitive markets *with no entry or exist barriers.* However, the onset of such an environment is not without fulfillment of certain preconditions on the part of the corporates – *global vision and global capability.* *Global vision* implies that the corporate should have the ability to analyse the dynamic competitive environment and should be able to develop superior strategies in a way, which is relevant to the new global opportunities, i.e., should have the vision of analysis and leadership. *Global capability* attributes, on the other hand, are reflected in the ability to amass and deploy productive human, technological and financial resources at the right time and at the right place.

27.4 GLOBALISATION AND INDIAN INDUSTRIES

The road to globalised markets has only fast tracks. There is no lane earmarked

for leisurely traffic. This is a primary factor to be understood. When the country opens up its markets and invites new investors and new technologies from abroad, proven suppliers can come in with their quality goods, technologies and services at competitive prices. There is thus *an anxiety that globalisation would become a one-way traffic, with imports flooding the local market, and throwing the indigenous industry and workers into misery*. However, given the fact that Indian industries have absorbed modern technologies and some quality standards over the past five decades, they have the requisite strength and resilience to face the immediate challenges of globalisation. What is needed is strategic planning to fully tap the existing strengths and meet the initial pressures. In any case, *the question today is not whether globalisation is inevitable, but how to tailor the method to fit each business when it embarks on globalization*.

One must turn the spotlight on *the information imperatives for global competitiveness*. Indian industry and business need to be on top of the corpus of information on a whole range of subjects such as product preferences, technology choices, price trends, rivals' strengths and weaknesses, and investment sources. Without such mastery, no business enterprise can successfully aspire to a razor-sharp competitive edge, which alone can assure it a recognizable market presence, let alone an unshakable market dominance.

Inevitably, companies have to spruce up all aspects of operations, in terms of technology and design, material procurement, manufacturing processes, quality levels, finance techniques and dynamics of marketing for export promotion taking fair advantage of the liberalised environment provided by the government. Effective managerial information and control systems are essential for improving in house efficiencies and for quick assessment of the external market opportunities. Timely decisions and responses from delivery dates, assured quality norms, pro-customer policies and above all, a goal orientation, are needed to succeed in global pursuits.

Productivity has to improve in all areas of management and the entire work force should wake up to the new realities through meaningful counselling and HRD techniques. A new sense of urgency to scale higher targets needs to be created in each employee and executive. Reduction in prices based on cost control and waste elimination could bring in more orders and larger profits on enhanced turnovers. This is how countries like Japan emerged world market leaders.

Competition has been the driving force for progress. A thorough reshaping of attitudes and redesign of work methods is imperative to bring in a totally new culture of activity and achievement. Each manager and supervisor has to lead by example, rather than by precepts, to prove that every new target can be achieved. Recognitions and rewards for meritorious performance in all cadres should serve as an incentive for better productivity.

Policies of trade and investment liberalisation have a crucial role to play in providing an outward orientation, which will impose external audit on the domestic cost structure. Marketing strategies will have to be evolved which should take account of the global economic restructuring that is going on in the world today. Marketing strategies suited to every target country relative to its tradition and culture should be evolved and modified from time to time for achieving results. Flexibility and effective local liaison should form the core of the strategies. It is in this context the following three points are important:

- i) *Making India the premier production centre of the world*. In several sectors, particularly in *agro-based industries*, India has the skills and the investments, which make it the lowest cost producer in the world. These investments can easily obtain a share of the world market and all that is required is to develop alliances with partners overseas and support it with a national policy for each sector.

- ii) Indian corporations to go into world markets and to become India's "multi-nationals abroad, with markets, and later, production centres spread across the globe. Here again, India has a natural advantage in certain sectors such as the *knowledge-led services and wide range of agricultural, industrial and fashion products*.
- iii) *Attracting foreign investments* to make India their home base for their world markets. India has amongst the *world's largest trained manpower, including farmer and scientists, engineers and professionals, entrepreneurs and skilled workers*. The cost of people is much lower in India than in the developed world and provides a significant competitive advantage to India.

The introduction of *full convertibility of rupee on current account* will greatly accelerate not just foreign investments in India, but also the export-import trade.

If India succeeds in attracting foreign investment, particularly in the area of infrastructure, then it would be possible for the government to re-invest into the rural sector. This will have its own beneficial impact on the total economy, as India's prosperity is entirely dependent on the rural, farm economy. This will help to usher in a *second green revolution in the country*.

To successfully participate in the world economy, *India needs to build strategic alliances – not just between trading blocks, but between corporations; and not just between foreign partners and India but partnership within Indian industry itself*.

Check Your Progress 1

1) What do you mean by globalisation?

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2) What is the implication of globalisation for an economy?

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3) Highlight the implications of globalization for Indian industry?

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27.5 POLICY CHANGES SINCE JULY 1991

Globalisation presupposes two things — *political will at the macro level which is reflected in various policies pursued by the government and corporate will at the micro level which is established by the existence of a global vision and capability*. The government has moulded its policies. In this regard, one can take a look at the following policy changes:

- i) A two stage devaluation of the rupee by about twenty percent in July, 1991 in an attempt to align the exchange rates with the world exchange rates and provide additional incentives to the exporters to offset some of the disincentives arising out of the import barriers.
- ii) Introduction of a system of *partial convertibility* of the rupee under the *liberalised exchange rate management system (LERMS)* and then allowing full convertibility of rupee on current account.
- iii) *Foreign direct investment (FDI)* has been liberalised and now the foreign investors are allowed to participate upto 51 per cent, 74 per cent, and even 100 per cent of the equity of select industrial sectors.
- iv) The list of products requiring import license has been pruned which shows that *physical controls are given way to fiscal controls* (all *quantitative restrictions* are removed by April 1, 2001)
- v) Import duties have been reduced.
- vi) Import of *capital goods* has been allowed without any specific licence if the payment for the imported capital goods is made out of foreign exchange received for the purpose of equity participation.
- vii) *Decentralization* of several items has taken place and those items, which were initially under the purview of government agencies, are now being opened to private companies.
- viii) *Foreign institutional investors (FIIs)* are given permission to invest in the Indian capital market. In fact, SEBI has already recognised several FIIs for this purpose and they have started making investments also.
- ix) Guidelines have been issued for the floating of *Euro* issues by the Indian companies.
- x) A major step towards globalisation has been to amend the Foreign Exchange Regulation Act, 1973 (FERA), which substantially dilutes its regulatory provisions to bring it in line with the new liberalised industrial, trade and exchange rate policies. The Act has removed a large number of restrictions on companies with more than 40 per cent non-resident equity and removed FERA controls on Indian firms setting up joint ventures abroad. The amendment also incorporates into law all the changes, which have so far been made by issue of notification by the RBI or the central government. These changes pertain to facilities extended to FERA companies on the appointment of technical and management advisors, opening of branches, acquisition of immovable property by FERA companies in India, borrowing of money or acceptance of deposits by them etc. Also, in an effort to rationalise the Act, about a dozen sections of FERA, 1973 were deleted as these had lost relevance over time. (As a matter of fact FERA 1973 itself is repealed and in its place a new liberalised legislation has been enacted which is known as "*Foreign Exchange Management Act (FEMA)*").
- xi) Guidelines have been specified for setting up of Indian Joint Ventures Abroad (IJVA), which would enable 90 per cent of the proposals to be covered through the automatic approval route. The main objective here is to liberalize Indian equity investment in joint ventures and wholly owned subsidiaries abroad as well as to simplify the procedures for investment abroad by the Indian parties.
- xii) Automatic permission is given for foreign technology agreements upto certain ceilings covering the high priority industries.

- xiii) Foreign technicians can now be hired by Indian companies without prior approval of RBI if certain conditions are met.
- xiv) *The foreign investment promotion board (FIPB)* has been instituted to facilitate and promote foreign investment.

These measures establish the fact that the government is indeed serious to help the industry globalize. The industry, on its part, is becoming more and more receptive to these structural reforms. The industry has responded by opting for *industrial tie-up as a threshold to building a global strategic presence*. Thus, there is a wave of multinational corporations (Macs) entering the Indian market and Indian businessmen too are fast setting up shop on the foreign shores.

To survive the threat of global competition, *Indian companies have no choice other than to restructure their business*. The way to tackle this would be to understand the *need for change* (the way?), *the paradigm shift required* (the what?), the implementation process (the how?), and prioritisation of the problems awaiting solutions (what is next?).

27.6 GLOBALISATION OF FINANCIAL MARKETS

India has been making use of the international financial markets. Exchange rate and interest rate movements now constitute the key variables. The volatility of exchange rates has turned out to be both a proximate cause and effect of capital movements. This in turn has made them autonomous variables not directly related to movements in the real sectors of the economies concerned. Another aspect of the vulnerability results from the quick transmission of impulses generated in one leading market to others. Today, *financial markets are global in scope; where the distinction between money and other financial assets is not so clear cut and indeed there is continuum of liquidity; where the line of distinction between financial intermediation by the banking system and other non-bank intermediation is also getting blurred; and as a corollary of this where financial institutions themselves are losing their specialist character*. Their wide geographical coverage is matched by wide functional activity against the background of increasingly intense competition. This has meant better opportunities both for the players in the international financial markets and those that transact business with them. Never have the world financial markets been *so integrated and offered so wide a variety of services*.

India is affected by trends in capital movements, exchange rates and interest rates. A more liberal domestic financial sector would be better able to interact with international financial markets. India has only been reacting to events abroad, i.e., *India remains 'events takers' rather than 'events makers', but even so, there is need for providing for a measure of structured rather than ad hoc response to external events*. This is also a matter of determining the rational sequencing pattern of increasing its markets' linkages with the international markets.

A cautious and step-by-step approach in terms of a well thought out framework of such linkages is called for. While Indian financial institutions and business should gradually and in a structured way get into the operations of the international financial markets, globalisation of the Indian financial sector is indispensable if it has to become efficient, vibrant and truly competitive in the years to come. *The process of globalisation involves two distinct challenges: (i) technological upgradation through computerisation, and (ii) establishing and forging links with international financial markets*. The Indian financial sector has been a late starter in mechanizing and computerising its operations. Regrettably, introduction of new technology is rather slow. What is even worse, the installed hardware does not

seem to have been utilised to its full potential. This unfortunate state of affairs must end. *The Narasimham Committee has endorsed the view of the Rangarajan Committee on computerisation.* At the economic policy level, the issue of forging links with the international financial markets is closely intertwined *with interest rate deregulation and convertibility of the Indian rupee.*

27.7 PROBLEMS OF GLOBALISATION

An outward looking or globalisation policy carries a price, as it demands certain constraints on the formulation of national policies. These constraints are:

- i) The international economic environment has qualitatively changed. When the industrialised countries are subjected to economic fluctuations, the dependent developing countries will have to bear these economic shocks.
- ii) There is a relationship on the one hand between investment made for export-output and income generated via the multiplier, and on the other hand between income generated and imports via propensity to import. This problem stems from the fact that income multiplier effect in a developing economy is higher than in a developed economy due to a higher marginal propensity to consume. Consequently, demand generated is also relatively higher in the developing economies than in the developed economies. This rise in demand, under certain given conditions, will push up the domestic price level and if marginal propensity to import does not recede, it will further lead to higher imports to the extent that proportionate rise in imports may exceed proportionate rise in exports and thus the trade balance is shaken.
- iii) The formation of a trade block in North America that has given rise to free trade between the US and Canada has created a new situation. With this, cartel like conditions will prevail on the demand side in these markets whereas *competition amongst the suppliers, intra-country and inter-country, will continue.* It is in these changed market conditions that India has to adjust itself. *Thus, not to speak of pushing up its share, even survival will prove a gigantic task for India.* In view of this, a better course for India will be not to rely too much on an export-led growth under the existing world scenario.

In this market oriented world there is no *godfather* who may come to India's rescue without asking for its pound for flesh. *Globalisation is perhaps irreversible. Success comes to those who learn to live dangerously. At best one can moderate the pace of globalisation. But globalisation is a conditional boon. One must put one's own house in order or at least mismanage it much less to get the boon working. India's options are limited.* One of them is to let the rupee fall freely. If the rupee depreciates, then the expectations of capping prices through imports would also be punctured.

The existing framework of global governance is weak, ad hoc and unpredictable, with international economic decision-making dispersed over numerous institutions, which are mostly dominated by the rich countries. Continued inhospitable international economic environment will frustrate the developing countries' determined efforts to end stagnation through *liberalisation, market-oriented reforms and outward-looking policies.* *Denial of access to markets, debt burden, inequities in global monetary, financial and trade systems, barriers to transfer of technology, dwindling flows of concessional resources, reluctance of foreign direct investment to flow to developing countries are making quantum jump from stagnation to sustained growth almost impossible.*

Domestically, there are several problems and issues, which act as hurdle towards global integration. These are : (i) *gross inequalities in income*, (ii) *poor infrastructure*, (iii) *lack of research facilities*, and (iv) *the problem of bureaucratic set up*.

According to Professor, P.R. Brahmananda (1993) *the economies are being asked to perform functions assigned to market systems without the requisite infrastructures* in storage houses, communication framework, trading establishments, organised stock exchanges, future markets, banking and financial institutions with branches, employment exchanges, commercial news-papers, advertisement media etc. Thus, *the transformation of the market has been sought to be achieved in a vacuum. Private property in land, capital and financial assets etc., has yet to be established universally. The information basis for a market economy is virtually absent. The state is simply divesting itself of its functions without compensating new institutional arrangements. Capitalism cannot be established without capitalist institutions and a legal framework.* Consequently, the transaction costs in the transitional processes have risen enormously, and great profits are being made by informal financial trading and information intermediaries. Consequently, the underlying basis for elastic supply schedules in various relative production lines has not come to exist.

The institutions such as IMF, World Bank and WTO are emerging as the watchdogs and monitors of developing countries on behalf of the developed. The loans are sources of additional demand for the products of the developed. The pressures on the moving down of exchange rates of the borrowing countries will be stronger. Further, there will be strong pressures to make the developing countries bring down the import duties and to free domestic markets.

Internationally, the point of worry is that major economies of the world are going through a major recessionary phase and are increasingly turning inwards in an effort to balance their domestic and international priorities. Thus, even they continue to preach the articles of globalisation and opening up to the world, they themselves are forming closed trading blocs, *NAFTA, Pacific Basic Trade Bloc*, being a few such examples. Thus, there are both, opportunities and hurdles in the entire process. Whereas the domestic ones can be overcome by the necessary reforms, the trade policies and structural movements towards opening up may be slowed down by the protectionist policies of the industrial countries.

According to Uncial's Trade and Development Report (TDR) 1997, *the invisible hand (market) now operates globally and with fewer countervailing pressures.* It has sounded out a wake-up warning to countries that their faith in markets and economic openness could be overwhelmed by political events, since evidence is mounting that slow growth and rising inequalities are becoming more permanent features of the global economy.

The policy efforts of developing world should be accompanied by an accommodating global milieu. But, among the asymmetrie of globalisation is the fact that liberalization of the world economy has proceeded so far in a lop-sided way that tends to prejudice the growth prospects of developing countries by discriminating against areas in which they could achieve comparative advantage. Thus, *liberalisation of trade in goods has proceeded more slowly in those sectors where developing countries are more competitive. Major trading blocs continue to protect their agricultural sector.*

New forms of protection against exports of manufactures from the South are being sought as a remedy for labour market problems in the North. While many curbs have been lifted on the freedom of capital and skilled labour to move where it is

best rewarded, no attention has been paid to abolishing many restrictions on the freedom of movement of unskilled labour.

Ultimately global efforts to help developing countries could still come to nothing if the slowdown in economic growth in the North is not reversed. For a return to faster growth, the policy of full employment is not only a pre-requisite for resolving the twin evils of high unemployment and increasing wage inequality in the North, but is also essential for defusing the threat of a population backlash against globalisation, which might put the gains of global economic integration at risk.

Check Your Progress 2

1) Highlight the implications of globalisations for Indian financial markets.

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2) Mention three problems associated with globalisation.

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27.8 EFFORTS REQUIRED FOR GLOBALISATION

While globalisation has arrived in the world, most organisations are still not ready for it. Yet, there is little doubt that to be viable during the next century, all organisations whether domestic or international, will need to become more global in their outlook, if not in their operations. The global organisation is a consequence to several new and sophisticated forces that have come to shape the world economy over the last decade. These are: (i) aggressive and massive financial accumulation and relatively free-flowing resource turnover; (ii) well-defined and efficient communication channels; (iii) information transfer and control systems; (iv) technology development and application that seek both leading edge and low-cost product creation and production and clear recognition of the potential for mass markets, mass customisation, and (v) global trends.

A joint industry-government working group set up by the Ministry of Commerce has recommended that the country should undertake corporate sector type advertising campaign in major international markets in order to improve the international image of Indian industry and goods and services. It suggested a two-step promotional strategy, beginning with a focus on image building for the country as a whole to combat its adverse image, followed by specific campaigns aimed at generating trade and investment flows.

The expansion of international trade and the rapid growth of products and services out of India will be enormously assisted *if the image of India is improved by a special, sustained and co-ordinated effort by government and industry working together. Many developing countries like India do not have strong reputations. It is therefore imperative to build credibility among a targeted group of buyers and investors.*

In this context, twelve different promotional techniques used by other countries

have been advocated by the working group. These are: (i) advertising in the general economic media, (ii) participation in trade fairs and exhibitions, (iii) advertising in sector specific media, (iv) trade missions to select countries, (v) general information seminars on trade and investment opportunities, (vi) direct mail campaigns, (vii) industry or sector-specific missions to select countries, (viii) sector-specific seminars, (ix) firm-specific research followed by sales presentations, (x) provision of trade and investment counselling services, (xi) speeding up the processing of applications, and (xii) provision of post-investment and post-trade services.

Moreover, while a host of bodies such as the Ministries of commerce, external affairs and finance, and several chambers of commerce are involved, there are no national coordinated efforts. Therefore, promotional work should be entrusted to an agency owned and funded jointly by the government and industry. However, it should function outside the purview of normal civil service rules and practices, should perhaps be a registered society, and “*should be run as a non-governmental, private sector organisation with a work culture different from government*”.

It may be emphasised that the organisation must be staffed by multi-disciplinary professionals, drawn not from the government but from the private sector.

“Essentially, a small, compact, fast moving group of people, led by a dynamic leader with task of promoting India internationally. As the international orientation of the Indian economy and Indian industry increase, it becomes essential for Indian industry to take care of details. Sustained efforts over a period, therefore, become necessary to build credibility. With this as the objective Confederation of Indian Industries (CII) has drawn up a list of “*Do’s and Don’t*” for Indian industry to assist companies to deal effectively in international trade.

In justifying the structural reforms that are being introduced in the Indian economy, the advocates of these reforms have brought the question of competitiveness to the centre of the discussion. Their argument runs as follows: The Indian economy needs to be integrated to the world economy. Globalisation requires that the Indian producers be competitive in the global market. It is only through these reforms that they can acquire the competitiveness and, therefore, the reforms are essential pre-requisites for successful globalisation.

Globalisation has of late become an objective in itself. This is both dangerous and ludicrous. *Globalisation should not be considered a goal in itself and that it was merely a means to the ultimate aim of improvement of the economy.* This simple objective needs reinforcement among the experts if the avoidable pitfalls of an economy in transition are to be avoided. Transition is a word that triggers both unease and heightened expectations. It is very important for us to cope with the unease if we are to satisfy the heightened expectations of nearly a billion people. The strengthening of the internal economy was a pre-requisite for a globalising economy. Given the ultimate aim of globalisation and given the pre-requisite for a globalising economy, the ultimate aim of improving the economy appears to be both the means and the end. This simplification without the use of expensive-sugar-coated words is the right approach to addressing the unease and the positive expectations.

The theoretical elegance of globalisation has its own attraction. It may help India to find some partial explanations for success and failure by systematically analysing the ability of a small set of firms to manage change. *But India needs practical and profitable applications that would be relevant to the large set of firms and individuals.* It needs consistent policies that can help to upgrade India’s position in international competition in a substantial and enduring way. Towards this, *India needs to find out what it is good at so that it can better achieve the best possible.* The process of finding out what India and its firms are good at is yet to

be put into motion at the national level and all the talk about globalisation is at best wishful and premature. Globalisation requires both static efficiency and dynamic efficiency, more of the latter than the former, and India is at a stage when it is unsure of economy’s static efficiency. A nation that is unsure of static efficiency is least equipped to pay for the dynamic extra options that are essential to guarantee success. The power blackouts in the states are an example of unsure, unreliable static efficiencies.

Check Your Progress 3

1) Mention five new forces that shape the world economy.

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2) Mention a few promotional techniques that need be adopted by India.

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27.9 LET US SUM UP

India ought to know what it is good at before embarking on what it needs to be good at in order to reduce the unease and sustain the expectations of a prosperous future. A prosperous future is predicted on the competitive advantage of firms in all sectors of the economy. The basis of competitive advantage in many sectors and industries, each seemingly distinct, depends on a set of critical elements common to a range of sectors. The set would obviously include transportation facilities, trained labour, energy, education and health. This set is indisputably at the heart of the economy. Its static efficiency needs to be improved. This is a prerequisite for sustaining and expanding the technical possibility set. Globalization would then be a clinch.

“Behind the cost of production of every commodity, there is a story. It may be a story of innovation, technical progress and modern labour process, or it may be one of sweated labour, primitive labour process and pollution. By putting a price sticker on all commodities, the market suppresses these stories, and thus hides more than it reveals. It is like one of those dark nights in which all horses appear gray. No country today can live behind closed doors. Third world countries therefore must globalise. But while attuning the economy to the needs of the global market, it should be kept in mind that globalization does not generate the process of development, it is the latter that leads to, and in turn is reinforced by, successful globalisation. Unless the process of development which is basically a highly localised process – successfully triggered off, globalisation may lead to the classification of the structure of underdevelopment, instead of causing its dissolution” (*Kalyan K. Sanyal, 1993*).

It is interesting to note that the Nobel Laureate Professor Amartya Sen support

removal of government control over industry and commerce and even endorses globalisation provided welfare is not ignored. He admits unhesitatingly that with the initiation of the right kind of policies, globalisation would secure more prosperity.

27.10 KEY WORDS

Backwash Effects: These operate where the economic growth in one region of an economy has adverse effects on the growth of other regions.

Common Market: An area, usually combining a number of countries, in which all can trade on equal terms.

Exchange Rate: The rate at which one currency may be exchanged for another.

Financial Capital: The liquid as opposed to physical assets of a company.

Public Utility: Essential good or service like power, gas, transport etc. A company or enterprise, which is the sole supplier of some of these essential goods or services and is, in consequence, subject to some form of government control.

Trade Blocs: Association of group of countries for safeguarding their interest vis-à-vis other non-member countries, like European Union (EU) and North America Free Trade Agreement (NAFTA), ASEAN, APEC etc., are some of the example of such trading blocs. Members of these trading blocs have eliminated all barriers to trade amongst member countries. The 15 members of EU have created a single internal market.

27.11 SOME USEFUL BOOKS

Bhalla, G.S. (1995): *Globalisation and Farm Policy* (Presidential Address delivered at the 54th Annual Conference of the Indian Association of Agricultural Economics at Kolhapur) *Business Line*, January 12-27.

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27.12 ANSWERS/HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) See Section 27.2
- 2) See Section 27.2
- 3) See Section 27.4

Check Your Progress 2

- 1) See Section 27.6
- 2) See Section 27.7

Check Your Progress 3

- 1) See Section 27.8
- 2) See Section 27.8

UNIT 28 ECONOMIC REFORMS AND SOCIAL JUSTICE

Structure

- 28.0 Objectives
- 28.1 Introduction
- 28.2 Problems Faced by the Economy in 1990
 - 28.2.1 Need for Economic Reforms
 - 28.2.2 Objectives of Economic Reforms
- 28.3 The Economic Reforms Package
 - 28.3.1 Implications of Reforms
- 28.4 Progress of Economic Reforms
- 28.5 Economic Reforms and Social Justice
 - 28.5.1 Need for Reforms with a Humane Face
- 28.6 Let Us Sum Up
- 28.7 Key Words
- 28.8 Some Useful Books
- 28.9 Answers/Hints to Check Your Progress Exercises

28.0 OBJECTIVES

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

- 1 What were the most serious problems facing the Indian economy since the beginning of 1990s;
- 1 How did the new government, which assumed office in June 1991, perceive the immediate task;
- 1 What was the rationale behind change in the direction of economic policy;
- 1 What is the content of new economic policy package;
- 1 What has been the relative importance attached to the different aspects of policy;
- 1 What has been the pace and progress of reform process; and
- 1 Are the economic reform measures more responsive towards social justice.

28.1 INTRODUCTION

There is a feeling that the Nehruvian development model was wrong. Socialism has failed because it could not generate wealth on a sustained basis. Yet, basic socialist concerns about poverty and inequalities have still not disappeared. India's basic objectives have not changed but the need to change the strategy of growth has been increasingly accepted.

There is a passive consensus in favour of the strategic shift in the development strategy. So the real question in the process of environment reforms is not the "sterile debate" between "the state and a pure market" but the question of "how to manage the transition (i) from excessive to reduced state intervention; (ii) from intervention in the wrong areas to those in previously neglected important ones; and (iii) from one form of reliance on quantity controls to another form (reliance on prices) of policy".

The strategy of self-reliance based on import substitution followed so far has to be combined with the strategy of export promotion. The first phase of rapid industrial growth, from the 1950s till about 1965, was characterised by government stimulus in the form of public investment. The boom of the 80s was supported by public

consumption in the form of government expenditure. This was not sustainable and resulted in the government slipping into a fiscal crisis and the economy suffering from balance of payments problems. But the basic point is that all the expansionary phases have so far been either based on public investment or public expenditure. The economic reforms and policy changes in India have focussed on two methods of increasing the aggregate demand:

- i) private investment-led, and
- ii) private consumption – led expansion, including exports.

There has been a lot of debate on the behaviour of private investment- domestic and foreign – in the context of reforms. Economic reforms reflect *a review of the role of Government, or more general of the State vis-à-vis the market*. By early 'nineties' most, if not all, economies have launched on a policy of redefining and reducing overall the role of the State. This phenomenon clearly signifies the new trade-off between '*State failures*' and '*market failures*' or what may be termed as the new realities in the relationship between the State and the market.

28.2 PROBLEMS FACED BY THE ECONOMY IN 1990

Before considering the various steps for restructuring the economy, it is important to be clear as to what were the most serious problems facing the Indian economy in 1990. Consider the following:

- 1) A large *fiscal deficit*, the underlying cause of which is *expenditure outpacing revenues*.
- 2) A huge *foreign debt*, with a high debt-service ratio, and debt-exports ratio, which caused a downgrading of the country's credit rating and serious repayment problems.
- 3) *Low levels of efficiency economy-wide*, which result in huge wastage of resources.
- 4) More contemporaneously, *a recessionary situation in the industrial sector*, stagnant agricultural output and poor growth prospects in the economy as a whole, coupled with a *serious inflationary problem*.

The situation that the nation and the economy had to face in mid-1991 was grim. The balance of payments situation had deteriorated so sharply and the foreign exchange reserves had fallen so low that the possibility of default in payment was imminent. On the domestic side while the Indian economy had done extremely well in terms of real growth between 1985 and 1990, the fiscal situation had also deteriorated sharply. The *budget deficit* as well as the overall *fiscal deficit* had sharply increased contributing on the one hand to large increase in money supply and on the other, to sharp increase in interest payments. Fiscal deficit of the centre and the states taken together, which was about 7.5 per cent of the GDP in the late 70s, had increased to about 11 per cent by 1991. The fiscal deficit of the Central Government alone which was below 6.0 per cent in the late '70s had increased to 8.5 per cent by 1991. Consequently, interest payments in the Central Government's budget had become the single largest expenditure item rising from 2 per cent of GDP in 1980-81 to nearly 4 per cent of GDP in 1990-91. The country thus entered during the '90s with a fiscal deficit that was simply unsustainable.

28.2.1 Need for Economic Reforms

The reforms were imperative for the following reasons:

- 1) The *downgrading of India's* credit rating made commercial loans difficult.

- 2) *Funds flow from west Asia dried up* following the Kuwait crisis, there were large withdrawals of NRI deposits during the early part of 1991, and foreign direct investment was low.
- 3) *Aid for poorer countries was getting scarce* because of larger claims by the former Soviet states and increased demands in the United States for domestic spending. Compulsions of efficient use of aid made the case for reforms stronger.
- 4) Following the collapse of old attitudes worldwide and the emergence of a global market, India had no *other alternative but to initiate economy policy reforms*.

However, reforms cannot be wholly attributed to these economic compulsions. The necessity for macro-economic reforms had been steadily gaining credence in the 1980s. The control system under the '*permit raj*' had become unpopular. The timing was, therefore, ripe for an assault on the system and would be greeted with a sense of relief. It is well known that structural adjustment involves hard choices. The choices are described as being hard because they often have implications that find disfavour with the populace at large, at least in the short run.

For the Indian economy, 1991 was an *epoch-making year*. Bold measures were taken to resurrect the economy from the brink of a fiscal and balance of payments crisis. Sweeping market-oriented reforms in industry, foreign trade and investment were introduced to liberalise the economy from the shackle that were binding it for decades. The crucial test for its success is : *does it create conditions for durable growth?* The crisis underlined the need to set in motion *a series of structural changes in trade, industry and finance sectors* so as to provide the necessary springboard for the economy to take off for self-sustaining growth.

28.2.2 Objectives of Economic Reforms

When the Congress government headed by Mr. P.V. Narsimha Rao assumed office in June, 1991 the task before it was two fold:

- 1) to restore macro-economic stability by reducing fiscal and balance of payments deficits, and
- 2) to complete the process of economic reforms, i.e., structural adjustment which have for the preceding ten years been conducted on a partial basis, gradually and intermittently.

The announced aims of the current economic reforms strike a revolutionary note. Reforms intended to achieve the following:

- 1) *stabilisation and macro-economic balance* through fiscal, monetary and exchange rate policies;
- 2) *a liberalised trade regime with no import* licensing and tariff rates comparable to other industrialising developing countries;
- 3) an *exchange rate system* which makes the rupee convertible, at least for current account transactions of the balance of payments;
- 4) a *competitive financial system* with sound regulations;
- 5) an *industrial sector free of many controls*; and
- 6) an *autonomous, competitive and streamlined* public enterprise sectors.

There is a common thread running through all these measures. The objective is simple and that is to improve the efficiency of the system. The regulation mechanism involving multitude of controls has fragmented capacity and reduced competition even in the public sector. The thrust of the economic reforms or *New Economic Policy (NEP)* was towards *creating a more competitive environment in the economy as a means to improving the productivity and efficiency of the system.* This is to be achieved by removing the barriers to entry and the restrictions on the growth of firms.

28.3 THE ECONOMIC REFORMS PACKAGE

It is important to understand clearly what the economic reforms package was and equally important what it was not. Economic reforms can be briefly summed up as a package consisting of three separate sets of policies: (Arun Ghosh, 1992)

- i) The *stabilisation of economy* meaning thereby, bringing into balance the aggregate demand and supply, the imbalance being in the main caused by large and endemic deficits in the Central Government's budget during the 80s, which got reflected in the spiral of inflation at home and deficit in external payments abroad. The policies adopted in this context relate to budgetary and credit policies.
- ii) A *restructuring* of the Indian economy with a view to making Indian industry internationally competitive. The policies adopted in this context range from industrial and foreign trade policies to issues like the lending policies of financial institutions (including banks), the pattern of government expenditure and public investment, including the policy relating to the public sector, and the approach on sick units and in regard to *subsidies generally and the subsidisation of small business and farms in particular.*
- iii) *The globalisation of the Indian economy*, throwing open, in stages, the import of all commodities including consumer goods, reducing the customs tariffs, allowing free inflow of foreign capital (including short-term capital), opening up the service sector to foreign capital, especially in the matter of banking, insurance and shipping and full convertibility of the rupee.

28.3.1 Implications of Reforms

According to Dr. Arun Ghosh the three pronged approach has major implications for the functioning of the economy and its future direction. They imply a complete and a sudden break from the past, and several issues arise relating to:

- a) the *desirability of the pattern* of development sought;
- b) the *timing of the various policies* and, more importantly, their sequencing (and in fact the wisdom of the frequent changes in policy which has the effect of creating uncertainties in the Indian economy);
- c) the relative importance attached to the different aspects of policy, in as much as domestic *priorities relating to the provision of education, health and employment, globalisation of the economy;* and
- d) the likely *impact of the package of policies* .

It must be noted that while the *stabilisation policies* are intended to correct the lapses and put the house in order in the short term, *the structural reform* was intended to accelerate economic growth over the medium term. Structural reform policies cannot succeed unless a degree of stabilisation has been brought about. But stabilisation by itself will not be adequate unless structural reforms are undertaken

to avoid the recurrence of the problems faced in the recent period. Structural reforms were broadly in the area of industrial licensing and regulation, foreign trade and investment, and financial sector. In relation to foreign trade policy, the aim was to liberalize the regime with respect to imports and try to bring about a closer link between exports and imports. Yet another objective is to reduce the tariff rates. As regards import duties, the policy has been gradual and the tariff rate in India has been progressively reduced in order to avoid a high cost economy. As regards foreign investment, the new policy measures certainly make a break with the past. Regarding exchange rate devaluation of the rupee, the Exim Scrip Scheme, partial convertibility scheme, unified exchange rate and the subsequent full convertibility on current account are essentially intended to ensure that the import growth is not out of tune with exports.

28.4 PROGRESS OF ECONOMIC REFORMS

What *has been the content of economic reforms*? We present below a list of major economic policy decisions announced so far since the programme initiated.

- 1) Devaluation of the Rupee: Approximately 19% in two quick stages.
- 2) Trade Policy Reforms: Export subsidy abolished. EXIM Scrip introduced but then replaced with a so called partial convertibility of the rupee on trade account (the 40:60 formula), unified exchange rate, and full convertibility of the rupee on current account since August, 1994.
- 3) Industrial licensing scrapped except for 6 industries primarily those of strategic importance, or producing hazardous goods.
- 4) The whole chapter in the Monopolies and Restrictive Trade Practices Act, which was ostensibly meant to curb the concentration of economic power, is scrapped.
- 5) The convertibility clause abolished. This clause hitherto enabled the term-lending financial institutions to convert industrial loans into equity at the price and time chosen by the lending institutions.
- 6) Substantial liberalisation of rules and procedures for foreign private investment. Foreign Exchange Regulations Act (FERA) liberalised to allow 50% equity participation in most industries; the FERA has now been to be replaced by Foreign Exchange Management Act (FEMA).
- 7) The exclusive domain of the public sector has been pruned. Only five industries are now reserved (i.e., Defence related industries, Atomic Energy, Mineral Oils, Mining) for public sector. But the private sector is welcome to apply even in respect of these. Besides, partial privatisation of some of the profit making public enterprises has been initiated. Thus, the steps taken regarding PSUs pertain to: (i) limiting public sector to strategic, high-tech and essential infrastructure; (ii) referring sick PSUs to Board of Industrial and Financial Reconstruction (BIFR), (iii) disinvesting a part of the shareholding of the PSUs, (iv) granting greater autonomy for PSUs through the instrument of Memorandum of Understanding (MOU); and (v) to develop a *safety net* for workers who are likely to be retrenched as a result of measures to close down sick units or rationalisation of the staffing pattern of PSUs.
- 8) The problem of *black money* started being attacked at the root; some measures adopted to curb the generation of new black money (the flow), some others to mop up the black money generated (stock) for productive purposes.
- 9) Fiscal policy reforms: (a) resolved to cut on government expenditure; (b) reduced

rate and simplification of individual income tax, corporate tax, excise and customs duties.

- 10) *Financial Sector Reforms* initiated so far are: (a) mutual funds allowed in the private sector; (b) foreign institutions like pension funds permitted portfolio investments in Indian companies; (c) deposit interest rates liberalised; (d) for the first time ever the SLR (the Statutory Liquidity Ratio) is reduced, and that too drastically; banking sector thrown open to private enterprise; insurance sector also opened to private enterprise.
- 11) Steel industry deregulated.
- 12) Policy announcement was made regarding small and tiny sector.
- 13) Reforms in Gold Policy was introduced; imports of gold allowed under baggage rules.
- 14) Substantial de-compression of imports, with only a short negative list to become shorter.

However, it must be noted that the process is by no means complete. The unfinished tasks are numerous, and can be divided into three broad categories. They are: (i) whatever has been done is only the start. The process needs to be carried further and consolidated in each of the above areas; (ii) *there are several areas, which have not been touched as yet*, and (iii) the introduction of reforms has brought to surface some relatively *unanticipated problems* that need to be considered and addressed.

Altogether, the above package constitutes a sharp turn-around in policy thinking compared to the *license permit raj* built up during the 1960s and 1970s. Some measures were taken to relax controls during the late 1970s and 1980s but these moves were a pale shadow of what is underway now. Observers of the Indian scene were very impressed by the dispatch with which government issued one policy statement after another. This speed of taking decisions was indeed remarkable. If, however, relevant policy moves are assessed against what is required to be achieved under the fundamental aims of the reforms, then the record of policy decisions does not appear to be all that impressive. What has happened so far is surely a good start but it leaves many gaps to be filled up. The agenda of issues, which will have to be tackled, is very long indeed.

Check Your Progress 1

- 1) Write four problems faced by the Indian economy in June, 1990.

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- 2) What were the reasons for adopting economic reforms in India?

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3) What do you mean by economic reforms package?

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4) Examine the progress of economic reforms in India.

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28.5 ECONOMIC REFORMS AND SOCIAL JUSTICE

The important consideration is not whether the economic reforms measures are anti-poor or not, but whether they are in fact “*pro-poor*”. In other words, is there an explicit “*equity*” dimension to the economic reforms or is the “humane face” merely an attempt to neutralise the negative impact that the reform measures would have on the extant structure of income and asset distribution? The very fact that the social sector spending policies, including the creation of the *National Renewal Fund (NRF)* for retrenched workers, is defined as a “*safety net*” such policies are meant to compensate for equity losses and would not necessarily improve the existing structure of incomes and asset inequality in the country.

There are areas in which government intervention is specifically required to ensure that apart from efficiency gains, the economic reform measures would have a positive impact on equity as well. These areas are: (i) employment, (ii) food security, (iii) health, (iv) education, (v) technology, and (vi) environment. While “*equity*” is not an explicit goal of the economic reforms measures, it is necessary that this is so and a clear definition of what equity should imply in the Indian context should be developed.

Another important consideration relates to the fact that while we are assessing the social impact of the reforms measures, a distinction be made between the direct “*transitional costs*” of reform measures in terms of equity losses, and the already pre-existing equity loss that occurs due to the inequitable nature of the extant economic regime. One should not confuse between the inegalitarian consequences of the existing social and economic order and what might be the specific product of the economic reform measures.

In measuring government’s support for greater equity, it would not be correct to look only at budgetary allocation but one should also look at the efficiency of resource utilisation. Have the economic reform helped better utilisation of existing resources, even if fiscal stabilisation required a squeeze on total allocation?

The economic reform measures should not imply a retreat of government from all spheres of the economy and society. While in some areas there would have to be reduced governmental intervention/support, in others like health care, education and social welfare, they ought to be more purposive and better targeted in terms of equity intervention by the government.

The broad thrust relating to the education, health and the public distribution system is that public provisioning of these services is still important and there is inadequate attention being paid to improving the quality of these services in the public sector. On the other hand, the increasing privatisation of these services has created a dualistic structure in which *a high value, high quality private sector is growing while a low value low, quality public sector is stagnating*. Unless the government invests more money and improves the quality of the services rendered the retrogression in these sectors would have adverse social externalities resulting in a national loss.

If financial allocations are no measure of public support, there is no evidence either to suggest that the government be any more committed today than before to improving the efficiency of resource utilisation. The real challenge before the government today is, therefore, *not so much to reduce the role of the government in the social sectors but in fact to make government more responsive to the needs of the people*.

Indeed, *the popular base for economic reform can only be built when ordinary people perceive an improvement in the quality of life*. Deregulation, debureaucratisation, decontrol, disinvestment and so on are only ways to wind down the involvement of the government in the economic life of the people. While much of this is popular with the business community, most consumers of public services are desperately seeking a more efficient and humane government rather than just less government. For, less government is no substitute for good government (Sanjay Baru, 1993).

Prof. V.S. Vyas has cautioned the Central Government against resorting to *“unmindful cut in government expenditures”* on sectors like education and health, besides infrastructure and human resource development to reduce deficit. In our enthusiasm to reduce deficit we must not curtail the expenditure vital for development. Fiscal adjustment and economic reform is not simply a matter for the drawing room. In the period of transition, it imposes a burden of adjustment that is distributed in an asymmetric manner. Without correctives, the burden of adjustment is inevitably borne by the poor. Whatever we might say about social safety nets, we do not have the resources for this purpose. It cannot and will not suffice to assert that the burden of such adjustment would have to be borne by the affluent and the middle class, simply because the rich in our society have the incomes to immunise themselves from the burden of structural adjustment.

28.5.1 Need for Reforms with a Humane Face

There can be no adjustment without pain, but we must do everything possible to minimise the social costs of the transition, in particular the burden on the poor. Restructuring on the supply side, which follows structural reform, will inevitably impose a burden on wage-labour. The phrase *‘adjustment with a humane face’* could then become hollow and deceptive (Deepak Nayyar, 1992).

In this context, one is inclined to agree with the view that “the agenda for sound macro-economic policies has to be harmonised with legitimate social objectives and the removal of longer-term constraints on growth. While no simple tune produces this harmony, there is no doubt that we need a radical departure in policies as well

as popular attitudes and political behaviour. Indeed, all these are inextricably linked. (I.G. Patel, 1991).

The policy makers should not ignore the fact that any experiment with India, no matter how well-intentioned, has to take into account the well-being of 1000 million people and not just the top 20 per cent, given that the creamy layer is attractive enough for the marketing needs of the Western World. Thus, even if high tech does come to the country, even if industrial systems are upgraded and even if exports pick up, unless reforms seek to wipe the tears off the face of the lowliest in the land, the bottom line will continue to suggest failure. *The concept of globalisation has no provision for the poor except for the safety nets.*

Assessing the humane face of structural adjustment and fiscal stabilisation in India, one may ask the question, what is the share of food subsidy in our gross domestic product? It would be over one per cent of GDP. Then, why bother about it when nearly 40 per cent of our population lives below the poverty line? Don't touch the food subsidy, but target it better. The public distribution system (PDS) should supply food at realistically affordable prices, especially because inflationary expectations seem to be strongly linked to PDS issue prices in India.

Dr. V.S. Vyas has highlighted the inconsistency of the Government's approach to the PDS. On the one hand, the government is of the view that it wants to target the PDS to the poor and on the other hand, it increases food prices. Dr. Vyas is concerned about the inflationary impact of the price hike and says, "a more courageous and desirable course would have been to reduce subsidies on inputs. In the quest for reducing fiscal deficits, the government is becoming unmindful of the social consequences". This goes against the government's desire to keep the rate of inflation within limits. The hike in food prices will serve some purpose if the government is really serious about fiscal discipline and can curb revenue expenditure sharply. If non-productive government spending does not come down, this can only have an inflationary impact. Food prices are very sensitive subjects and history reveals that stabilisation and adjustment programmes have been given a bad name by rising food prices.

By announcing that the grain distributed in tribal and some other backward areas will be sold at a cheaper price, the government has made an attempt to target the poor through PDS. It might also exclude better-off classes in urban areas, something more often recommended by economists but resisted by politicians of all hues. It remains to be seen whether such targeting succeeds, and does not fall a prey to leakages and corruption. The contents of the PDS basket need to be changed if the aim is to target the poor. There is no reason why superior foods like sugar and edible oil should be subsidised by the PDS. Coarse grains could form a good proportion of grains distributed in backward areas. Since inferior foods are disliked by better off sections leakages will be fewer. A better way of targeting the poor is to expand rural employment programmes at low wages, which will attract only the needy.

Fiscal adjustment, which sought to reduce the wide gap between the income and expenditure of the government, constituted the core of the macro-economic stabilisation programme. According to Professor Deepak Nayyar, the quality of adjustment leaves much to be desired. There are three reasons underlying this concern: (a) it cannot provide a sustainable solution to the fiscal crisis; (b) it is likely to constrain economic growth; and (c) it is disturbing the burden of adjustment in an unequal manner. In a period when we are imposing a substantial burden on the poor through expenditure adjustment, the equity principle demands that the rich and the better off share this burden through their contribution to direct taxes.

Thus, as has been pointed out by Professor Deepak Nayyar, it seems that the fiscal

adjustment embodied in the budgets has lost sight of why the adjustment was necessary in the first place. The budget makers have been *concerned with form rather than substance and quantity rather than quality*. What is more, the adjustment has been regressive in its impact. The rich, who derived much of the benefit from the profligacy of the 1980's when the government and the country lived beyond their means, have been spared the burden of adjustment, while the cost is borne by the poor.

Professor A.M. Khusro is of the view that the new policy has so far impacted only the elite industrial and commercial society – the importers, the exporters, the traders, some manufactures and the NRIs. The logic of the policy is that once these elements are allowed freedom to perform and begin to produce competitively with improved efficiency, the output in various sectors will expand rapidly. The labour force required for expanded production would increase and improvement in production and supplies will restrain the rate of inflation and benefit the masses at large. In other words, if the policy does get implemented, the production and employment will trickle down of course, with a time lag. *Eventually, the masses will judge the policy through its effects on employment, prices, availability of output and a noticeable decline in the rate of inflation*. But all this will depend upon whether the first stage of implementation does or does not go through. That is why implementation is more important.

Check Your Progress 2

1) What do you mean by 'adjustment with a humane face'?

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2) What do you mean by a safety net?

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3) Mention the role of public distribution system in the on-going programme of economic reforms.

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28.6 LET US SUM UP

The task of reform is indeed a challenging one. The commitment to reform should go hand in hand with the concern for alleviation of poverty. A social safety net has been devised to take care of the consequences of the process of change. The imperatives of social policy as embedded in our social and economic framework mandate a concern for the poor and the deprived. The planning process should

take care of this. *It is only appropriate that where markets distort the planning process, the State should take care of those who are disadvantaged. So long as one does not attempt to outguess the market but set right its distortions one can preserve the social goal of growth with equity. It is only on this basis that the process of reform can be sustained in an open society.*

With regard to economic reform with a humane face, the achievement seems to be far short of what was aimed at. After about ten years of liberalisation, large segments of the population have yet to share the benefits of progress of development. A clear assessment is not possible about the extent to which liberalisation objectives with regard to humane face have been attained. There are no quantified targets against which performance can be compared since what the economic reform measures indicate is a direction of movement, not a specific goal. *The pace of movement towards achievement of humane face is much slower than what is acceptable. With the framework of the reform measures a greater degree of redistributive bias has to be built in.*

For long term strategy, we ought to focus national attention on seven issues: (i) a steep increase in the savings rate, especially the public and private corporate sector's savings rate, (ii) making rapid export growth a "national economic endeavor". (iii) to pay greater attention to exporting more; improve Indian industry's technological capability through greater attention being paid by firms to R&D, (iv) better tax compliance (v) greater concern for social justice, (vi) a greater concern for the environment – economic growth cannot continue without paying attention to the ecological costs of modernisation; and (vii) rural development which will take employment opportunities both in the agrarian and industrial sectors to rural areas so that there is rural enrichment and an end to urban crowding and decay.

28.7 KEY WORDS

Devaluation: A fall in the fixed exchange rate between one currency and others.

Depreciation: A situation where a currency falls in value against other currencies through changes in the forces of supply and/or demand.

Convertibility: An attribute of a currency, which is freely exchangeable for another currency, or for gold.

Terms of Trade: A relationship between the prices of exports and the prices of imports.

Deficits: A situation where outgoings exceed income, on an ongoing basis, or where liabilities exceed assets at a specific point in time.

28.8 SOME USEFUL BOOKS

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28.9 ANSWERS/HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) See Section 28.2
- 2) See Sub-section 28.2.1
- 3) See Section 28.3
- 4) See Section 28.4

Check Your Progress 2

- 1) See Section 28.5
- 2) See Section 28.5
- 3) See Section 28.5



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EEC-12

Indian Economic Development since Independence

Block

8

ECONOMIC REFORMS IN INDIA

UNIT 25

Theoretical Issues **5**

UNIT 26

Privatisation in India **18**

UNIT 27

Globalisation of Indian Economy **28**

UNIT 28

Economic Reforms and Social Justice **41**

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BLOCK 8 ECONOMIC REFORMS IN INDIA

Introduction

Block 8 discusses the measures of economic reform introduced in India since 1991. In the background of the preceding policy regime that relied heavily on 'command and control' strategy of economic development, the present policy focuses on a path that is largely decided by the market forces. An attempt, therefore, is made to introducing the basic concepts of economic reform through Unit 25. The succeeding Unit 26 deals with privatisation moves in India and examines the privatisation of some of the economic activities hitherto performed by the public sector. The basic thrust of ensuring the economic development in a competitive environment by India is discussed in Unit 27 under the title, Globalisation of Indian Economy. The concluding Unit 28 of the block deliberate upon the features of economic reform in India in the presence of social justice as an important objective.