GOVERNMENT ARTS AND SCIENCE

COLLEGE

NAGERCOIL

DEPARTMENT OF ECONOMICS

III B.A

INDIAN ECONOMY – I

SMEC- 54

Dr. D. AMUTHA JULIE GRACE

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INDIAN ECONOMY – I

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Preamble : To enable the students to analyze various issues pertaining to India' economic development. The performance of the economy is to be addressed also critical appraisal is expected by taking cognizance of the contemporary development in the economy.

Unit – I **Structure And Organisation Of Indian Economy**

Indian Economy before Independence – Characteristics of Indian Economy – Problems of Indian Economy – Poverty and Unemployment – Causes and Remedial Measures. (15L)

Unit – II **Demographic Features Of India**

Causes and Consequences of overpopulation in India. – Population Control in India – Migration. (15L)

Unit – III **Agriculture:**

Features of Indian Agriculture – Role of Agriculture in Indian Economy Land reforms – Green Revolution in India – Advantages and Disadvantages of Green Revolution – Agricultural Marketing – Regulated Marketing (15L)

Unit - IV **Industries**

Need and Importance of Industrialization – Large Scale Industries – Iron and Steel, Cement, Textile, Jute and Sugar – Industrial Policy – Role and Importance of Small scale Industries in India. (15L)

Unit – V **Planning And Economic Reforms**

Need and Importance of Planning exercises in India – Five year Plans – Objectives and Achievements – NITI Aayog – Economic reforms in India (15L)

(Total: 75L)

Text Books:

1. Indian Economy – S.Sankaran
2. Indian Economy – Agarwal.

Reference Books:

1. Indian Economy – Dutt & Sundaram
2. Indian Economy – Misra & Puri
3. Indian Economy – I.C.Dhingra

Page 18 of 23

Chapter 3

Indian Economy at the Time of Independence

India was under the British rule for nearly two centuries. Indian culture, administration and economy have been largely influenced by the British. We cannot altogether denounce that the alien rule was totally detrimental to India's economic progress. What little advancement we had at the time of Independence was due to the pioneering efforts of the British administrators, combined with the zeal and enthusiasm of a few patriotic Indians. Though the British policy was mainly aimed at exploiting India's natural resources for the benefit of their motherland, their administration ensured unity, security and safety, though not prosperity and plenty.

When India attained independence in the year 1947, Indian economy presented a dual picture of modernism on the one side and traditionalism on the other. There was prosperity and plenty on one side and poverty and penury on the other. We shall study in detail about the condition of the Indian economy before the advent of the British and the economic transition of Indian during the British period and finally the picture of dualism which was one of the features of underdevelopment.

India in the Early Days

Indian Economy in the early days was a village economy, consisting of isolated self-sufficing economic units in the form of villages. The community of the village, based on division of labour, produced the necessary requirements of the village and very rarely the products went beyond the village market; the exchange being mostly on barter system, though money economy was not unknown. The occupation of the people was cultivation of the land and ending of cattle. There were artisans who identified themselves in classes and castes as carpenters, weavers, potters, washermen, cobblers, barbers, etc., whose occupations were hereditary. These artisans received a portion of the harvested crops of the village for their services rendered to the village community. The village had their own panchayats and they were like miniature republics. The relation and association with the outside world were very much limited, nor was there any interference from outside. Except the acknowledgment of the authority of the king outside and the payment of taxes in kind, the village formed separate entities by themselves, contributing to a high degree of happiness of all in the villages.

The organization of society, religion and law exercised a considerable influence on the economy of the country before the advent of the British rule. The caste system originated in the Epic Age, as a functional division of society and, at a time when the economic organization of society was simple, it worked splendidly well. Again, in earlier times, the castes worked like the guilds of mediaeval Europe; they provided for the training of apprentices and operated as so many mutual benefit societies.

Secondly, the *joint-family* system had enormous consequences of Indian economy of early days. In this system, the members of the family pooled their resources and maintained the family out of the common fund. The advantage was that weal or woe was borne by the group entirely and there was no need for organized poor relief. The system gave protection to helpless persons, old men, widows etc., and exhibited a spirit of unselfishness and sacrifice among the members of the group. In a joint family, sub-division and fragmentation was avoided, for the whole plot of land belonged to the family. It was also economical to have one establishment for a large number of people.

Whatever might have been the merits of the caste system and the joint family centuries ago, they had their own drawbacks and inherent weaknesses. The caste system, determining the occupation, divided the society into watertight compartments which resulted in congestion in some occupations and shortage of man-power in others. Further, it proved a fetter on material progress. The disadvantages of joint-family were many. The head of the family prevented initiative among the members of the family. Incentive to work was not there, as the members knew that the fruits of their labour would be shared by all. Further, it contributed to immobility of the Indian population and prevented entreprencurship. Still further, unscrupulous members of the family took to gambling with the family property. This led to discords and strife in the family.

Another important factor which had powerful influence on the economy of India was the Hindu religion. Important pilgrimage centres like Varanasi, Allahabad, Nasik, Puri, etc., developed into centres of trade and commerce. Religious centres were the nucleus of trade and commerce, and many activities were based on religious functions and festivals. It has been erroneously stated by some writers that Hindu religion acted as an impediment to progress on the economic front. They say that because of the emphasis of fatalism and spiritual salvations as the ulterior goal, individual initiative and material progress were discarded. It should be noted here that almost all the leading religions foster a spirit of fatalism. Islam means 'submission' to the will of God. 'Thy will be done' is the Christian prayer. So it is not correct to say that only in Hinduism there is a spirit of resignation and submission. Further, Hinduism never prevented the people from making material progress. On the country, India before the advent of the British rule prospered on the commercial side, having had foreign markets. Finally, religion had not been a bar for progress in any country. The advanced economies of the world have materially developed not by negation of religion, but by fostering it.

Early Industries

In earlier days, India had well-established industries in the nature of handicrafts, the chief among them being the textile industry which was spread almost all over the country. Bengal was famous for calicos. Dacca for muslins, Kashmir for shawls, Ahmedabad for dhotis and dopattas. Amritsar and Ludhiana were reputed centres for woollen products. The Dacca muslin was the finest and best known of all cotton goods. Dr. Mukherjee tells that "a piece of the finest muslin, 20 yards long and one yard wide, could be made to pass through a finger ring and required six months to manufacture it". There is an interesting story that Aurangazeb is said to have rebuked his daughter, for appearing naked one day, wearing a Dacca muslin cloth seven times round her body! Next to textiles, metal working was an established handicraft. Benares, besides silk, was famous for its brass, copper and bell metal wares. Other centres of this craft were Nazik, Poona, Visakhapatnam, Thanjavur and Hyderabad. Mysore and South Canara excelled in sandal wood carvings and products, while Rajaputama in enamelled jewellery and stone-carvings. Pearls of Coromandal Coast enjoyed world-wide reputation. All products were exported to foreign markets, particularly to Greece, Egypt and South East Asia. The domestic market was much limited. The quality of the handicraft was quite high.

Trade and commerce flourished only in the urban centres because of the variety of people and occupations. Handicrafts and fine arts were patronized by the princes and kings, and the towns were also centres of art, architecture, sculpture and administration. The export trade of India flourished. Besides exporting handicrafts to foreign countries, articles like pepper, opium, indigo and cinnamon were also popularized in Europe. During the 17th and 18th centuries, the industrial status of India in the world was of a very high order. At a time when Europe, the birth place of modern industrialism, was inhabited by uncivilized tribes, India was famous for wealth, grandeur and craftsmanship.

THE CONQUEST OF INDIA BY THE BRITISH

India had been land of conquest and settlement by many foreigners. The Battle of Plassey in 1757 enabled the British East India Company to become administrators, and the British conquest of India was completed by 1858 when the Crown took over the administration. One fundamental difference between the Britishers and the early invaders was that the former kept themselves as separate class and created a feeling of distinction between them and their subjects in India, while the latter naturalized and identified themselves as citizens of this country. Because of this difference, the policies and activities of the Government were aimed at enriching the motherland at the expense of India. The conquest of India by the British led to the emergence of a new political and economic system. Let us study the consequences of the British conquest and the changes brought about in its wake.

Economy During the British period

When the British conquered India, the colonial expansion coincided with the industrial revolution in England and the colonies were amply exploited to serve the economic interests of Great Britain. The British conquest led to the disintegration of the village communities mainly due to the introduction of a new land revenue system and commercialization of landed property. India was considered as the repository of raw materials, intended for supplying the industrial needs of England and all the expansions in the fields of transport, communication, irrigation, education, etc., were mainly aimed at accelerating the process of economic drain from India. The three important consequences in the Indian economy due to the advents of the British rule were:

(i) Decline of Indian handicraft and ruralization of the economy

(ii) Introduction of new land system to suit imperialistic needs.

(iii) The process of industrial transition through colonial capitalism.

Decline of Indian Handicrafts

Before the industrial revolution, the pattern of India's trade with foreign countries was of manufactured goods, textiles, spices, etc., to the various part of Europe. The industrial revolution in England, not only created a great demand for raw materials for mass cheap production, but also needed foreign markets to sell the goods. Hence, the industrial revolution reversed the character of India's foreign trade. As a first step, attempts were made to crush Indian manufacturers and to step up export of raw materials. The Indian Textile handicraft was not only the first, but the worst to be hit by the anti-Indian trade policies of the British. The alien Government which was against the Indian interest, amply contributed to the decline of handicrafts.

Secondly, the Indian crafts were thriving mainly under royal patronage. The Rajahs, Nawabs and emperors who ruled India extended their patronage and help to the artisans of the country for the display and decoration of their courts. With the advent of the British rule, the princely courts disappeared and the handicrafts also suffered on that account.

Thirdly, the Indian made goods could not withstand the foreign competition of machine made cheap goods, particularly cotton textile goods. This led to the decline of Indian handicrafts and the economy had to depend on foreign manufactured goods by exporting raw materials. Thus the hostile attitude of the British, the dominance of machine made goods and the diminished influence of princely courts resulted in the destruction of Indian handicrafts.

Fourthly, there was the indigenous factor on the demand side. With the spread of education and, with it, the English culture, the Indians began to imitate western style in dress, fashion and manners to identify themselves with British officials. This led to a change in the pattern of demand of the people who slowly

discarded indigenous goods, considering them as out of fashion and substituting foreign materials. This indirectly gave a fillip to the demand of imported western goods and completely discouraged indigenous production.

The decline of Indian handicrafts resulted in unemployment on a mass scale and the displaced artisans had no alternatives; they were forced to take up agriculture for their sustenance. This led to progressive ruralization and over-crowing in agriculture. The percentage of population dependent on agriculture increased from about 55 per cent in the middle of the 19th century to 75 per cent in the thirties of 20th century. This over-crowding naturally paved the way for many defects in India agriculture, like sub-division and fragment ition, abnormal rents, emergence of landless agricultural labourers, etc.,

The Land system

During the East India Company rule, land revenue was the main source of finance and the directors of the company were very keen on realizing the maximum revenue without incurring much expenditure in revenue administration. So, the rulers introduced land settlement in 1793. In Bengal, the land settlement made was called 'Permanent Revenue Settlement'. By this the revenue collectors of the area were elevated to the status of private landlords who came to be known as Zamindars. The system fixed land revenue in perpetuity and the zamindars were required to deposit and enhanced land revenue to the government. This naturally led to excessive exaction from peasants by the Zamindars who became the intermediary class with vested interest tied to the British rule in India. Thus the English wanted to stabilize firmly in the Indian soil with the help and revenue of the Indian people. This Zamindari system of land settlement was extended to other states under the British rule and it was made a 'Temporary Settlement' under which the land revenue was reassessed periodically, ranging from 25 to 40 years.

In addition to these two systems, a third one was evolved in major parts of Bombay and Madras. This was called 'Ryotwari Settlement' in which each peasant holding a plot of land recognised as the landlord and he was made directly responsible for the payment of annual land revenue to the Government. The Ryotwari Settlement also created absentee landlords and it led to the destruction of the organic life of village communities, based on customs and traditions.

All these systems cut at the very root of agriculture and its progress by creating a class which was least interested in agricultural development, but only interested in exacting more and more rent from the tenant-cultivators.

Further, during the British rule, agriculture was commercialized to cater to the needs of the British industries for necessary raw materials. Due to the industrial revolution and mass production, the British industrialists were always in need of raw materials to keep their factories running. There was a huge demand for industrial raw materials like cotton, jute, groundnut, sugarcane, etc. By offering

high prices, the Indian peasants were enticed to take to production of commercial crops instead of food crops. By a deliberate policy of pressure and high prices, many landlords substituted commercial crops, and this led to a phenomenal fall in the production of food crops. The extent of commercial agriculture went so far as to make many peasants purchase their food requirements from the shops in the towns. This deplorable fall in the production of food crops was responsible for frequent famines in India during the British days. These factors retarded the process of industrialization of the Indian economy.

The network of railways and roadways only helped and intensified commercialization of agriculture. The transport system was least helpful to assuage the famine conditions in India. Before the advent of railways, the nature of famines was one of local scarcity of food due to short production, and foodstuffs could not be quickly and properly mobilized to the famine stricken area. But after the construction of railways, the famines took a different shape. Famines were coupled with high prices of foodstuffs, mass agricultura unemployment and lack of purchasing power. Added to these were the activitie of speculators and blackmarketeers who aggravated the famine conditions. Th severity of the famines could have been reduced if the transport systems particularly the newly constructed railway, were utilized for mobilizing the stock to the famine areas from the regions of plenty. But in practice this was not done The Government did not allow the exports to England to be decreased. Th famine Commission of 1898 made it clear that food could be purchased in th market, though at a very high price. All these go to show that the Governmen was least interested in the economic conditions in India and every policy wa designed to help England at the expense of India.

The destruction of Indian hardicrafts, the zamindari system, which lacke any incentive to the tiller of the soil, commercialization of agriculture and th hostile policy of the Government at the time, all led to the complete ruin of th Indian economy.

PROCESS OF INDUSTRIAL TRANSITION AND COLONIAL CAPITALISM

Organized industry on a large scale was first introduced in India only by th British. It took mainly two forms, viz., plantation and factory, the former indented from some of the tropical possessions of European countries, and the latter a product of English Industrial Revolution. The process of industrial transition in the 19th and 20th centuries under the British was mainly in the private secto India possessed abundant raw materials and cheap labour and ready market when there was industrial expansion in the West due to industrial revolution. Indians in the early days were unfamiliar with the conduct of modern business enterprises and the indigenous capital was not forthcoming due to lack of technical 'knowhow'. This condition attracted the British capitalists who wer established treaders. They invested their capital in the colonies like India an other parts of the Empire in plantations, factories and mining.

The early plantation industry established before the British rule was indigo in Gujarat and Western India. But it had died out as a result of American competition. The East India Company revived the Industry by bringing in planters from West Indies and settling them in Bengal. Soon there was a rapid growth of this industry and by 1850 indigo became an important export product of India. Similarly, tea plantation was started in 1835 as a private garden and it made tremendous progress in due course. Coffee was introduced into India by the Moor traders in the 17th century. But it did not make any progress. Later on, in 1840, coffee was again introduced by an European, and it gathered momentum in due course and coffee estates sprang up almost in a chain.

Among the manufacturing industries, cotton and jute were started. The first cotton mill was set up in Bombay in 1851 by the *Bombay Spinning and Weaving Company*. Within a decade, about a dozen mills were started around Bombay and by 1880 there were 56 cotton mills employing nearly 43,000 people. Mr. George Auckland established the first jute mill in Bengal in 1855. By 1882, the mills increased to 20, employing nearly 20,000 people. Similarly, the first coal mine was opened in 1820 in Raniganj District in Bengal. But it did not make much progress. By 1854, there were only three coal mines in India. The opening of the East Indian railway line in the region enabled the industry to grow quickly and by 1880 nearly 56 coal mines were at work in Raniganj and the adjoining districts employing about 20,000 people.

By 1900, India became a great exporter of rice, wheat, cotton, jute oilseeds, tea, etc., and importer of British manufactured goods. British colonial business developed in India very easily and quickly as it was indirectly linked with the British Government. The industrialization indicated was more for their profit and it was not intended in any way for accelerating the progress of the Indian economy.

In addition to British enterprise, there were also enterprises of Americans, Jews and Parsis. In India, conditions were not favourable for producing indigenous industrial or business leaders. In foreign countries, at the time of the Industrial Revolution, conditions were very favourable for the emergence of industrial establishments. There were two groups of people interested in industrial establishments. They were merchants with enough capital to invest and to find good returns, and the master craftsmen who mastered the technique of find good returns, and the master craftsmen who mastered the technique of production, but who lacked capital for enterprise. These two classes combined together and effectively co-operated in starting many factories. But in India, the conditions at the time of Industrial revolution were entirely different. Neither was the merchant interested in industrial enterprises nor the craftsmen knew the technique. Moreover, in the early days, most of the Indian merchants who possessed capital belonged to the baniya or money lending community, who were particular about security of capital with good profit. So money lending and trading offered more scope for profits rather than risky industrial undertakings.

Further, the development of transport offered more opportunities to trading interests and hence the money lending and trading communities of India, viz., Marwaris, Gujarathis, Jains, and Chettiars took to the development of their traditional occupation and not factory industries. Only in due course, they took bigger industrial ventures with the help rendered by British Managing Agents.

The Swadeshi Movement of 1905 gave an impetus to Indian industries and the outbreak of world war in 1914 was a blessing in disguise for the development of indigenous industries. The war created enormous demand for factory goods in India. Reduction of imports of foreign goods due to war conditions, and the government demand of materials for war purposes, gave tremendous boost to the production of iron, steel, jute, cotton and woolen textiles. The number of cotton mills rose from 150 in 1895-96 to 264 in 1913-14 and jute mills increased from 28 to 64. The output of coal increased from about 6 million tons in 1901 to about 16 million tons in 1914. Along with coal, petroleum and manganese industries also came to prominence.

The cotton industry enjoyed continuous prosperity during the war years and even after that. The average prices of cotton textiles at the end of the war were nearly three times as that of the 1914 prices. The number of mines increased from 554 to 953 in 1922 and production increased from 14.7 million tons to 18.2 millions tons.

A large number of companies came into existence. In 1913-14, there were 2,681 registered companies with a paid-up capital of nearly Rs. 76 crores. In 1921-22, their number rose to 4,781 with a total capital of about Rs. 223 crores.

In the early days of industrialization, Indian industries faced many obstacles and handicaps, like lack of capital, illiteracy of the labourers, shortage of fuel, and limited markets. Though labour was abundant, it was very inefficient. The world war I brought to light the industrial poverty of the country and made the Government realize the need for all-round progress. An industrial commission was appointed in 1916 and subsequently the constitutional reforms made industries a provincial subject.

It is very difficult to estimate the total foreign capital investment in India during the British period. It was estimated at £ 298,000,000 in 1914 and at £ 831,000,000 in 1922-33. The Financial Times, of January 9, 1930, estimated it about £ 7500 millions. The British Associated Chamber of Commerce in India for 1933 put the figure at £ 1,000 million. Findlay Shirras estimated for 1929-30 the total sterling investment at £ 500,000,000.

Another important feature of colonial expansion was the appointment of Indian Directors on the Board of British controlled concerns, e.g., Jatia Brothers in Andrew Yule & Company, and Mukherjees in Martin and Company.

With the initiative and push given by foreign capitalists and industrialists, the Indians found their industrial leaders in Parsis, Gujarathis, Jains and Marwaris, etc.

Transition and Modernization under the British

A close look at the economic development of India during the British regime reveals that paradoxical transition had taken place in this country, viz., modernization with underdevelopment. India integrated itself with world capitalism during the British period without enjoying any benefits of capitalism.

The modernization had been limited to only these political, economic fields in order to strengthen the process of integration of the Indian economy with British capital interest. The British empire gave the people of India peace and not prosperity. The ancient handicrafts were killed to make way for machine made goods of the British; the cultivators were deprived of their position in the land system, the balance of payment position was most unsatisfactory and the country's wealth was drained.

The benefits and modernization under the British rule were only incidental and not contemplated. The argument that British capital was adventurous, while Indian capital was shy during the British days, does not hold good. Because of the political advantages which could serve the economic interest, foreign capital was forthcoming. Moreover, all investment made were only under guarantee system. Further, the tariff policy, and the 'most favoured nation treatment' enabled the British capitalists to amass huge profits and it was not mainly due to their enterprising spirit. Indian capital was also equally adventurous during the two world war periods when foreign capital was chocked up.

It is claimed that the British provided a network of railways and roadways which helped the Indian economy in the process of modernization and industrialization. No doubt the transport sector of India is mainly responsible for all the benefits in the process of industrialization. But this benefit was only incidental and the ultimate object behind was systematic exploitation in order to cripple the economy. The motive in all undertakings of the British was to serve the interest of the British. Hence, Indian economy presented a dual picture of modernization and underdevelopment when the British transferred power to India in 1947.

The Goal of Economic Policy after Independence

Economic development, as indicated is a continuous process extending over a very long period to break the vicious circle of poverty and leading to the stage of self-generating economy. This is the goal of economic policy in India. The directive principles of our constitution laid down the policy of securing adequate means of livelihood to the citizens; ownership and control of the resources of the community to subserve the common good. The operation of the economic system should not result in the concentration of wealth and income to the common detriment. In India the planning finds expression in fostering economic development.

India today is one of the fast developing countries among the underdeveloped ones. The production of goods for future industrialization has been undertaken. An industrial complex supplying inputs has sprung up. Progress made in the production of steel, transport equipment, machine tools, heavy engineering products, heavy electrical equipment and fertilizers, etc, is highly commendable. Import substitution has been taken up with full vigour. An infrastructure strong enough to sustain the economic forces is being built up and rural electrification has become a reality. There is Green Revolution heralding a full scale industrial revolution.

Where does India stand in the process of self-sustained growth? How far the economic policy has helped in achieving the goals of development? Rostow himself has stated that the 'take-off' began with the commencement of planning in India. But the process is not yet complete. "Historically, once regular growth begins, it has taken about three generations for a nation to absorb and diffuse to the bulk of its people what modern science and technology could provide."

DILEMMA OF DEVELOPING ECONOMIES

A developing economy faces many crucial and embarrassing problems in the process of development. In backward economies, it will not be a problem to frame solutions to make them rich and powerful, but the real problem will be the new ones arising during the course of development. Thus, in the developing countries, there are two sets of problems; those which are inherited from past, and those which are generated by the process of change itself.

Inherited Problems

The enormous inherited problems of the developing countries are well known. They are:

(i) The majority of mankind in developing nations still lives at subsistence level hardly enough for human existence.

(ii) Nearly all countries reveal large inequalities in wealth and income.

(iii) Malnutrition prevailing in these economies is appalling. It is estimated that as many as two-thirds of all surviving children in backward econo mies are under-nourished.

(iv) Poor economies have high death rates, short life expectancy, poor housing, difficulties in obtaining adequate fresh water and widespread illiteracy.

(v) These countries face traditional institutional problems – inadequate administrative machinery, inefficiency in private sector, particularly in banking credit and transport, lack of good and highly evolved legal system, and lack of experience in dealing with international business and complexities of world economy.

Such a variety of inherited conditions create problems for development with which countries have to live while trying to change those conditions which they regard as undesirable.

Success-Generated Problems

Against this background of inherited problems, the developing countries, through their success in development, generate new problems, perhaps more aggravating than the original problems. The success-generated problems are:

(i) Population explosion created by the miracles of modern medicine and measures to lengthen human life. Population control and Family Planning programmes have become part and parcel of development planing with their subsidiary problems.

(ii) Industrialization, at the expense of modernization of agriculture, has created problems due to rapid urbanization. Urban poverty is created, with dehumanized environments, and herein we have the effect of interaction between inherited problems and newly generated problems; the appalling physical poverty in the country-side and urban poverty and immorality.

(iii) Increasing industrialization has created environment pollution, causing serious threat of humanity by posing many health hazards that will affect even the future generation. Further, accelerated urbanization, due to industrialization, complicates national economic management and causes quick-depletion of natural resources of he country, particularly fresh water. It has been estimated that the world may exhaust all conventional sources of fresh water by the middle of the 21st century.

(iv) Another problem generated by success is that of rising unemployment, caused partly by capital-intensive production. Computers put clerks out of work, and foreign technicians, are hired for their knowledge of latest technology, while educated nationals, who could learn this technology, are either unemployed or take up jobs unrelated to their capacities.

(v) The Green Revolution has created many problems. The 'miracle seeds' and the technology behind it, no doubt, created a new strategy in agricultural production, and the developing economies are greatly benefiting from this technological breakthrough. At the same time these high-yielding seeds are displacing low-yielding pulses and oilseeds which contain better quality protein. Further, this 'modernization in agriculture' again creates new income inequalities, exacerbating the already existing inequalities in the agricultural economy.

(vi) Even big projects like dams, power stations, roads, railways, etc., may reward only certain groups more than others, regional disparities in income may widen as some areas are strategically better located to modernize more rapidly.

(vii) Increase in export capacity, though welcomed by all, may cause social tension, since real wages and incomes rise more rapidly in the export sector in a manner visible to all. Tourism brings luxury hotel amidst squalor and slums. Import substitute Industries, whose development is encouraged by protection policies, may prove uneconomical, wasting capital and savings and aggravating unemployment.

Thus, examples of success-generated problem could be multiplied. The existence of these problems is not evidence of failure in the field of development. Even developed economies will have many generated problems. In an economy, this will be a never-ending process. Success in development will automatically generate problems needing solutions. The economists and scientists should acknowledge the existence of generated problems and devise appropriate solutions to meet the specific needs of the country.

Review Questions

Section - A

1. What is a Hindu Joint-family?
2. What were the ancient trading centres of India?
3. What do you mean by Colonial Capitalism?
4. Make a brief estimate of foreign capital investment in India during the British period.

Section - B

1. Give a very brief account of Indian economy in the early days before the advent of the British.
2. What is meant by 'Success-generated' problems for a developing economy? Give illustrations from Indian experience.
3. What are 'inherited' problems of Indian economy? Explain with illustration.
4. What was the goal of economic policy after Indian independence?

Section - C

1. 'The British Rule in India gave peace. But not prosperity to Indian Economy' – Discuss.
2. Analyse the causes for the decline of Indian handicrafts during the British period in India.
3. Discuss about the 'Land System' that prevailed in British India.
4. Discuss about the dilemma faced by developing countries during the course of their economic development.

Chapter 16

Poverty and Inequality

What is Poverty?

It is very difficult to define the term 'Poverty', as there is nothing 'absolute' about poverty and the concept is essentially a relative one. In the materialistic sense, a poor person is one who lacks means to procure necessities of life. Though it appears to be a straight forward definition, in fact it is not so, because there is no universal agreement on what "necessities" of life are. The situation becomes even more confounded because, inadvertently, 'money' is considered synonymous with 'means' in the above definition.

It is not the word 'money' but the word 'more money' which implies the concept of poverty. It is always relative. 'A' who is starving is not poor in isolation. He is poor when compared to 'B' who has something to eat. Going a step further 'B' is poor when compared to 'C' who is having not only plenty of food, but also good food. Thus, the concept is purely relative. Drawing a poverty line is more or less an arbitrary proposition.

However, for quantifying the extent of poverty, economists adopt some economic indicators or measures to indicate the number of people below the poverty line. Generally, income of the people is taken as the indicator of poverty or affluence. Spending or per capita expenditure is also taken as the indicator of poverty. The 'intake of food' and the 'standard of living' are also taken into consideration in measuring the extent of poverty. Whatever may be the method adopted, the term *poverty is not an economic abstraction, but a human condition. It is despair, grief and pain which cannot be measured.*

Poverty line

Lord Boyd-Orr, the first Director General of FAO, was the first person to propound the notion of starvation line in 1945. According to him, a consumption of less than 2,300 calories per person per day was considered as the line of starvation and this idea has been transformed into 'poverty line'. The Indian planning Commission has defined the poverty line on the basis of recommended nutritional requirement of 2,400 calories per person per day for rural areas 2,100 calories per person per day for urban areas.

The working group consisting of Prof. Gadgil, Dr. V.K.R.V. Rao, Dr. P.S. Lokanathan, Dr. Ganguli and Ashok Mitra worked out the poverty line in India and recommended a standard of private consumption at Rs. 240/- per capita

per year at 1960-61 prices as the barest minimum. This means, a person consuming less than 67 paise worth of food is considered to be living below the poverty line. Based on this criterion, 58 per cent of the population were living below the poverty line during the period 1953 to 1958 and 48 per cent of the population were living below the poverty line in 1967-68.

Other estimates of poverty

Economists engaged in the task of measuring poverty in India have adopted their own methods and procedure and consequently, there are as many estimates of poverty as there are economists.

Dandekar and Rath estimated the extent of poverty in India. According to them "that level of consumer expenditure is desirable which secures a diet adequate at least in terms of calories. In 1960-61, this was Rs. 170 per capita per annum for rural households and Rs. 271 per capita per annum for urban households." Further Dandekar and Rath noted that "In 1960-61 about 40 per cent of the rural population and about 50 per cent of urban population lived below the desirable minimum." Further these two Economists have noted that the gains of development were not shared equally by all the sections of rural and urban population, though the average consumer expenditure rose by 4.8 per cent in real terms, in the eight year period from 1960-61 to 1968-69.

Dr. Minhas estimated that 66 per cent of the people were living below the poverty line in June 1974.

P.K. Bardhan estimated poverty line on the basis of Rs. 15/- per capita per month at 1960-61 prices for the rural poverty and Rs. 18/- for the urban. Bardhan noted that in 1968-69 about 55 per cent of rural population was below the poverty line and 41 per cent of the urban population was below the poverty line.

According to sixth plan estimate, it is 46 per cent. Taking all these into consideration, we can emphatically say that nearly 50 per cent of the people of India are living below the poverty line.

Poverty and Standard of Living

Due to mass poverty, the standard of living of an average Indian is among the poorest in the world. Nearly 480 to 500 million people live in villages untouched by the benefits of modern development. They are hungry, sick and they live in mud houses which are dark and dingy without air or sunlight. They do not have furniture or other requirement of living, and in most cases, the animals also share their rooms. All these houses are only one-room mud apartments. There will be no bathrooms or toilets and there will be complete absence of sanitation or hygiene. The children and the adults will make use of the surroundings and the roadside as their toilets, polluting the air and water of the area. After sunset, most of the villages go to sleep. There will be no lamps or lights in the houses or in the roads outside. Poverty, illiteracy, disease, absence of sanitation and housing, lack of pure drinking water, absence of medical facilities, etc., are the hallmarks of Indian villages, in spite of more than five decades of planning.

According to Seventh Plan estimates, and NSS, figures relating to population below the poverty line are given in Table 16.1

Table 16.1

Population below poverty line

YEAR	Number of Poor (in millions)		Poverty Ratio (Per cent)	
	Rural	Urban	Rural	Urban
1960-61	138	29	38	40
1970-71	200	41	45	41
1977-78	253	54	51	38
1984-85	222	51	40	28
1989-90	169	42	28	19
1999-2000	193.2	67	27.1	23.6
2004-05	170.3	68.2	21.8	21.7
2009-10	278.21	76.47	33.8	20.9
2011-12	216.50	52.80	25.7	13.7

(*Note* : 2009-10 and 2011-12 – as per Expert group – Tendulkar methodology)

The Table 16.1 reveals the magnitude of poverty. The number of people below the poverty line stood at maximum in the year 1977-78, where it had reached 307 million and in 1989-90 the figures below the poverty line had come to 211 millions. Indian poverty is mainly rural poverty. As per the Table 16.1, nearly 26 per cent of the population in India live below the poverty line. For the rural areas, the number of poor (1989-90) had been estimated at 169 million which accounts for nearly 29 per cent of the rural population. Urban poor constitutes 19 per cent of urban population. The magnitude of poverty is still larger and grim with reference to weaker sections of the society, viz., scheduled Castes and Scheduled Tribes. According to the estimates made in 1983-84, 51 per cent of the scheduled caste population and 57 per cent of scheduled tribe population had been living below the poverty line. Further, this poverty is unevenly spread among states in the country. Andhra Pradesh, Bihar, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamilnadu, Uttar Pradesh and West Bengal have population more than one-third below the poverty line. But in the states of Haryana, Himachal Pradesh, Jammu and Kashmir, punjab and Manipur, the people living below the poverty line constitutes only 15 per cent of the state's population. These figures relate to 1983-84 estimates.

The estimates of poverty in India are now quite old and do not indicate exactly the same incidence of poverty. One could see the divergence in the findings of different economists.

Recently, Deepak Nayyar has provided estimates of poverty for 1992-93. His

estimates were based on the methodology suggested by Expert Group on estimation of proportion and number of poor (planning Commission, 1993). According to Deepak Nayyar's estimate, in 1992-93, the overall percentage of population below the poverty line was 40.7. According to him in rural areas 41.7 per cent of population was below the poverty line and in the urban areas, it was 37.8 per cent. From the figures of Deepak Nayyar, there is no evidence to suggest that the incidence of poverty in India has declined since 1987-88.

POPULATION BELOW POVERTY LINE (1999-2000)

(Latest figures given by planning Commission of India)

The planning commission has furnished some latest figures regarding the number and percentage of population below poverty line in all the states of the country for the year 1999-2000.

It has been estimated that the total number of persons living below the poverty line in India is 260.25 million constituting 26.10 per cent of the population of the country. Of this, 193.243 million belong to rural areas and 67.007 million to urban areas. Thus, 27.09 per cent constitutes rural poverty and 23.62 constitutes urban poverty in our country.

State recording highest incidence of poverty i.e., larger percentage of people below poverty line are Bihar, Madhya Pradesh, Orissa, Assam, Arunachal pradesh, etc. The following Table 16.2 gives particulars of number and percentage of population below poverty line (1999-2000) where the incidence of poverty is very high.

Table 16.2

Number and percentage of population below Poverty Line (1999-2000)

(30 - day Recall Period)

	Rural		*Urban*		*Combined*	
	No. of Persons (Million)	*% of Persons*	*No. of Persons (Million)*	*% of Persons*	*No. of Persons (Million)*	*No. of Persons*
1. Orissa	14.369	48.01	2.540	42.83	16.909	47.15
2. Bihar	37.651	44.30	4.913	32.91	42.564	42.60
3. Madhya Pradesh	21.732	37.06	8.122	38.44	29.854	37.43
4. Assam	9.217	40.04	0.238	7.47	9.455	36.09

The Table 16.2 reveals that the percentage of persons living below the poverty line is very abominable in the case of Orissa where the total percentage stands at 47.15. Roughly, one-half of the population in this state lives in abject poverty. Next comes Bihar where the percentage of people living below the poverty line is 42.60. In Madhya Pradesh and Assam more than one-third of the population lives

in poverty without basic requirements and also food. It should be noted that in all cases cited, the 'rural poverty' is very large, and the urban poverty is also around rural poverty, except in the case of Assam where the rural poverty is more than 40 per cent and urban poverty is only 7.47 per cent.

However, by 2011-12, the number of people and percentage of persons living below poverty line in Odisha was 35.69% and 126.14 million in rural area and 17.29% and 12.39 million respectively. In Bihar, these figures for rural area was 34.09% 320.40 million and 31.23% and 37.75 million in urban areas. In the same year, Madhya Pradesh reported 35.741% and 190.95 million in rural areas, 21% and 43.10 million persons in urban areas and Assam had 33.89% and 92.06 million persons in rural areas and 20.41% and 9.21 million persons in urban areas.

The Table 16.3 gives particulars of some more states and Union Territories having larger percentage of people below the poverty line.

Table 16.3

Number and Percentage of population below Poverty Line (1999-2000)

(30 - day Recall Period)

States/UTs	RURAL		URBAN		COMBINED	
	No. of Persons (Million)	% of Persons	No. of Persons (Million)	% of Persons	No. of Persons (Million)	No. of Persons
(All figures in brackets are for the year 2011-12)						
1. Sikkim	0.2	40.04	0.004	7.47	0.204	36.55
	(0.45	98.5	0.06	36.6	0.51	8.19)
2. Tripura	1.253	40.04	0.049	7.47	1.302	34.44
	(4.49	16.53	0.75	7.42	5.24	14.05)
3. Meghalaya	0.789	40.04	0.034	7.47	0.823	33.87
	(3.04	12.53	0.57	9.26	3.61	11.87)
4. Arunachal Pradesh	0.380	40.04	0.018	7.47	0.398	33.47
	(4.25	38.93	20.66	0.6	4.91	34.67)
5. Nagaland	0.521	40.04	0.028	7.47	0.549	32.67
	(19.93	2.76	16.48	1.00	18.88	3.76)
6. Uttar Pradesh	41.201	31.22	11.788	30.89	52.989	31.15
	(8.25	11.62	3.35	10.48	11.20	11.26)
7. Manipur	0.653	40.04	0.066	7.47	0.719	28.54
	(7.45	38.80	2.78	32.59	10.22	36.89)
8. West Bengal	18.011	31.85	3.338	14.86	21.349	27.02
	(141.14	22.52	43.83	14.66	184.98	19.98)
9. All India	(2166.58	25.70	531.25	13.70	2697.83	21.92)

In the above states/UTs, the percentage of people living below the poverty line exceed the average percentage for the entire country, *i.e.*, 26.10 per cent. It should be noted that States like West Bengal and Uttar Pradesh have larger incidence of poverty recording more than the national average. By 2011-12, in Arunachal Pradesh, Manipur and Sikkim, the percentage number of persons below poverty line in rural areas, exceeded national average. But in urban case, only in Manipur and West Bengal the percentage number remained above national average. That means, in urban areas, there has been satisfactory reduction in poverty level.

The Table 16.4 gives particulars of States and Union Territories having lesser percentage of people below the poverty line; Percentage lesser than the national average.

Table 16.4

Number and % of population

below Poverty Line by States 2011-12 (Tendulkar Methodology)

	RURAL		*URBAN*		*TOTAL*	
States/UTs	*% age of Persons*	*No. of Persons (Lakhs)*	*% age of Persons*	*No. of Persons (Lakhs)*	*% age of Persons*	*No. of Persons (Lakhs)*
Andhra Pradesh	10.96	61.80	5.81	16.98	9.20	78.78
Arunachal Pradesh	38.93	4.25	20.33	0.66	34.67	4.91
Assam	33.89	92.06	20.49	9.21	31.98	101.27
Bihar	34.06	320.40	31.23	37.75	33.74	358.15
Chattisgarh	44.61	88.90	24.75	15.22	39.93	104.11
Delhi	12.92	0.50	9.84	16.46	9.91	16.96
Goa	6.81	0.37	4.09	0.38	5.09	0.75
Gujarat	21.54	75.35	10.14	26.88	16.63	102.23
Haryana	11.64	19.42	10.28	9.41	11.16	28.83
Himachal	8.48	5.29	4.33	0.30	8.06	5.59
Jammu & Kashmir	11.54	10.73	7.20	2.53	10.35	13.27
Jharkhand	40.84	104.09	24.83	20.24	36.96	124.33
Karnataka	24.53	92.80	15.25	36.96	20.91	129.76
Kerala	9.14	15.48	4.97	8.46	7.05	23.95
Madhya Pradesh	35.74	190.95	21.00	43.10	31.65	234.06
Maharashtra	24.22	150.56	9.12	47.36	17.35	197.92

Manipur	38.80	7.45	32.59	2.78	36.89	10.22
Meghalaya	12.53	3.04	9.26	0.57	11.87	3.61
Mizoram	35.43	1.91	6.36	0.37	20.40	2.27
Nagaland	19.93	2.76	16.48	1.00	18.88	3.76
Odisha	35.69	126.14	17.29	12.39	32.59	138.53
Punjab	7.66	13.35	9.24	9.82	8.26	23.18
Rajasthan	16.05	84.19	10.69	18.73	14.71	102.92
Sikkim	9.85	0.45	3.66	0.06	8.19	0.51
Tamil Nadu	15.83	59.23	6.54	23.40	11.28	82.63
Tripura	16.53	4.49	7.42	0.75	14.05	5.24
Uttar Pradesh	11.62	8.25	10.48	3.35	11.26	11.60
Uttaranchal	30.40	479.35	26.06	118.84	29.43	598.19
West Bengal	22.52	141.14	14.66	43.83	19.98	184.98
Andaman & Nicobar	17.06	0.69	6.30	0.55	9.69	1.24
Chandigarh	1.57	0.04	0.00	0.00	1.00	0.04
Dadra Nagar Haveli	1.64	0.00	22.31	2.34	21.81	2.35
Daman & Diu	62.59	1.15	15.38	0.28	39.31	1.43
Lakshadweep	0.00	0.00	12.62	0.26	9.86	0.26
Puducherry	0.00	0.00	3.44	0.02	2.77	0.02
ALL INDIA	25.70	2,166.58	13.70	531.25	21.92	2,697.83

The Draft Tenth Five-year plan has given some poverty-ratios which are given in the Table 16.5

Table 16.5

Poverty-ratios of some states in India

State	*Poverty Ratio (Total) in Percentage*		
	1993-94	1999-2000	2007*
Bihar ...	55.0	42.6	43.2
Orissa ...	48.6	47.2	41.0
Madhya Pradesh ...	42.5	37.4	26.5
Uttar Pradesh ...	40.9	31.2	24.7
Rajasthan ...	27.4	15.3	12.1
Maharashtra ...	36.9	25.0	16.2
Gujarat ...	24.2	14.1	2.0
Kerala ...	25.4	12.7	3.6
Andhra Pradesh ...	22.2	15.8	8.5
Tamil Nadu ...	35.0	21.1	6.6
Karnataka ...	33.2	25.0	7.9
Haryana ...	25.1	8.7	2.0
Punjab ...	11.8	6.2	2.0
India: ...	36.0	26.1	19.3

* Projected

(*Source:* Draft Tenth Five-year Plan, Vol. III, p.77)

From the plethora of statistical figures by different organisations and institutions, we find a lot of differences and variations in poverty ratios for different periods. These are due to different basis of approach and also changing the method of calculations. Some data are based on consumption expenditure, some are calorie criteria. Change in methodology for collection of data results in variations in figures. But certain things are very explicit. Some states have abominable poverty ratio and some fairly tolerable. There is a declining trend in the poverty ratio; but not to the extent of anticipation.

CAUSES OF POVERTY

The principal causes for the poverty in India are: (a) High growth rate of population, (b) Inequalities of income and low per capita income, (c) Low consumption expenditure, (d) Poor development, (e) Social and political factors.

(a) High Growth Rate of Population

India is a land of paradoxes and contradictions. This is more so in economic development of the country. In fifty five years of planning, we find the paradox of

'Poverty with Growth'. Generally, it is attributed that the rate of growth of population in India has been larger than the rate of growth of the economy; and hence the planning efforts could not have any impact on reducing the poverty of the people. This cause is *not real* but only apparent. Since the commencement of planning in India, the growth-rate had been around 4 per cent and in recent years it is still higher. The capital stock, infrastructure, skilled man-power per capita income agricultural production, industrial production etc., have increased to meet the growing population. However, this growth of the economy is marred by increasing incidence of poverty in the country. This evidently shows that the *benefits of growth have not reached the really deserving poor* and only little trickles down to the deserving poor; while the benefits are cornered by the affluent classes. This is due to the faulty policies of the government in identifying the poorer classes, though increase in population in general cannot be altogether ruled out as the cause of poverty.

Further, it should be realised that the growth of population is rather conspicuous among the poorer classes of people accentuating the magnitude of poverty. Unfortunately, this poverty leads to large number in families, thus falling into the trap of poverty and large number, as a vicious circle. Further, there is close relation between high fertility and poverty, as the reproductive capacity of poor woman is higher due to economic, social and environmental causes, besides lack of scientific and rational thinking. With little employment and large leisure, the family becomes large-sized with low consumption.

(b) Inequalities of income and low per capita income

Another principal cause for massive poverty in India is gross inequalities of income and wealth due to maldistribution of national income and concentration of economic power. As we have studied already the per capita income is very low in India.

There are copious literature brought out by studies made relating to inequalities and unequal distribution of wealth and income in the country from the fifties of last century. Figures relating to those studies will not be out of place here. According to the estimate made by Lydall for the year 1955-56, the top 10 per cent of the population cornered 84 per cent of national income; and bottom 25 per cent received less than 10 per cent of national income. As per the estimates of Mukherjee in 1956-57, the 24 per cent of the lowest rung of the population had to live with just 8.5 per cent of the national income, while the top 10 per cent of the population knocked off 25 per cent of the national income. As per the studies made by the National Council of Applied Economic Research (NCAER) in 1970-71, the top 30 per cent of rural households shared 54 per cent of the income; and bottom 30 per cent got just 11 per cent of income.

According to world Bank Report of 1989, the lowest 20 per cent of the households in India got only 7 per cent of the income; the highest 20 per cent of the households took 49.4 per cent of the income during the year 1975-76. Again,

the world Bank Report of 1991 reveals that during the year 1983, in terms of per capita expenditure, the lowest 20 per cent of the people spent as little as 8.1 per cent of the total expenditure, whereas the top 20 per cent, spent as much as 41.4 per cent. Similarly, in rural India, the top-rich farmers constituting about 5 per cent cornered more than 20 per cent of the national income, while the 20 per cent of the bottom in rural population shared just 7 per cent, according to the study made by the Reserve Bank of India in 1953-54. As per the Sixth Plan, in 1983, in rural areas, the share of the bottom 30 per cent in the household consumption expenditure was only 15.2 per cent and the top 30 per cent accounted for 50.9 per cent of household expenditure. Almost all studies reveal the gross inequalities in income distribution. The situation has not changed even today and the differences in figures are only marginal.

(c) Low Consumption Expenditure

Because of the poor income, the consumption expenditure is also very low in India. Studies made by Dandekar and Rath revealed the magnitude of low consumption of the people in India. The studies among different sections of the rural population revealed in 1960-61, as follows: (i) 6.38 per cent of rural population, in one section, had per capita consumer expenditure of less than Rs. 8/- per month which is 27 paise per day. (ii) In another section, 11.95 per cent of the population had per capita consumer expenditure of less than Rs. 11/- per month, which is 37 paise per day. (iii) Similarly, in another section, 9.88 per cent had less than Rs. 13/- per month, i.e., 43 paise per day; and (iv) in yet another section, 9.82 per cent of the population had per capita consumer expenditure of less than Rs. 15/- per month, i.e., 50 paise per day. The four sections mentioned above constituted about 40 per cent of the population.

This shows that most of the people have consumption expenditure of less than 50 paise per day. The situation in urban areas was in no way better.

d. Poor Development

The rate of development is very poor in relation to employment generation. The poor people could come up economically either by increasing their assets or by increasing their income. But in our economy, the increase in employment opportunities is always less than the increase in labour force. This situation gets worsened with the backlog of unemployed people every year. This had been clearly admitted by the sixth Plan document. Since a large number of people continue to remain unemployed and under-employed, they become asset-less and income-less people in the economy and continue to live in slums in abject poverty.

(e) Social and Political factors

Apart from the above factors, illiteracy, ignorance, conservatism, casteism and the lack of will to elevate are the causes of poverty in rural areas. The type of democracy and the political system in our country have given large scope for

corruption, indifference, apathy, administrative inefficiency and incompetence in our political life, leading to dishonesty and poor morale in public life. Consequently, the poor and rural people have to live in abject poverty, resigning themselves to fate, while he rich and the affluent reinforce their economic power and status through undersirable means.

There is *no political will* in our country to root out corruption or to eradicate poverty. The so called measures to eradicate poverty are implemented in half-hearted way. Hence many of the policies are contradictory in nature; the programmes are not fully and sincerely implemented and the so-called success of some programmes is only in statistics and paper. In short, *poverty is in-built in our system*.

INEQUALITY OF INCOMES

When we consider the inequality of income, we do not mean minor differences in income and wages. In a society of people with varied talents, the rewards for work cannot be identical. By inequality, we mean the gross inequalities of income between different sections of the society as is found in capitalistic economy or any economy with a capitalistic tinge in its economic setup. In these economies, the capitalistic group consisting of billionaries and multimillionaries would be leading a life of pomp, plenty and pelf, while the other group would be just toiling and moiling to make both ends meet, while there would be just toiling and moiling to make both ends meet, while there would be yet another group living under abject poverty, misery and helplessness bordering on to starvation and death. It is only this type of colossal difference of incomes, we consider under the heading 'Inequalities of Income'.

The world development Report has given particulars of per capita expenditure distribution in India for 1997 as follows: In the year 1997, in India, bottom 20 per cent of the families had a share of 8.1 per cent in expenditure, while the top 20 per cent of the families had 46.1 per cent expenditure. Thus, the gap between the richest 20 per cent and the poorest 20 per cent was very high. Similarly the world Development Report, 2005 gives additional information about the share of top 10 per cent who had 33.5 per cent or one-third share in the total expenditure, while the lowest 10 per cent had only 3.5 per cent share in the total expenditure in the country. Thus, the disparity in expenditure, and income distribution was very high even after more than five decades of planning. Similarly, there was inequality in land distribution in the country-side. Large farms and large farmers dominate as far as area under cultivation is concerned, while 78 per cent of the holdings were under marginal and small farmers with 32 per cent of the cultivated area.

Causes of Inequalities of Income

(i) Economic System: Any economic system with capitalistic tinge enabling a few to own the factors of production and accumulate vast resources will eventually lead to gross inequalities of income.

(ii) Private Property: One of the hall marks of capitalism is the institution of private property. The capital class is allowed to accumulate property and enjoy special benefits and privileges. This class gets the large share by way of rents, interest and profits. While wage and salaries tend to be stable or at any rate increase at a low rate, the profits and rents go up at a rapid rate with the development of science and technology.

(iii) The Law of Inheritance: The institution of private property is perpetuated by transmission of wealth through the law of inheritance. Thus inequalities are passed on to generations as the progenies of rich parents inherit the wealth, while the unfortunate off-springs of the poor will be in the wilderness. Because of the environmental differences, there are unequal opportunities between those born in well-to-do families and those born in less affluent families.

(iv) Monopoly Power: Once the capitalistic system is established, other connected tools to perpetuate inequalities will automatically manifest. The first outcome will be monopolies and *big business*. Secondly, there will be *pressure groups* influencing the Government to frame the policy in their favour.

Evils of Inequalities of Income

The consequence of inequalities of income are obvious. There will be different standards of living between people of the same country and same regions. One group will be wading in luxury and another group will wallow in poverty. There will be wastage in *consumption* on one side, and *scarcity of essential articles* on the other side.

Inequalities lead to class-conflicts between 'haves' and 'have-nots' and there will be permanent social tension due to constant struggle between these two classes. The *exploitation of the poor* by the rich will lead to many labour and social problems.

Another evil of this is that the *rich* will corrupt the body politic and the Government machinery will be used to promote the interest of richer classes. Through many methods, the rich will try to become richer perpetuating gross social injustice.

Political democracy is a far-fetched dream or mirage in a country where there are gross inequalities of income. So long as there is a big gap between different sections of the society, *political democracy* is a *myth* and the entire machinery will be controlled and manipulated by rich classes.

Thus inequalities of income lead to many undersirable consequences such as wastes in consumption, scarcity, wrong utilization of economic resources, insecurity of labour class, concentration of political and economic power in the hands of a few and the exploitation of the poor by the rich.

The argument that this system creates a climate of savings and investment for capital formation and economic growth is untenable, as the growth is for the rich and not for the poor.

METHODS OF REDUCING INEQUALITIES OF INCOME

The success of planning and the consequent development and growth will automatically generate problems of inequalities, unless sufficient methods are contrived to redistribute the generated income properly. There are two methods advocated to reduce inequalities of income. The drastic method is called the *Levelling Down* which is solution offered by Marxists. The alternative method is called the *Levelling up* which is advocated by moderates. The former is done more with political machinery, while the latter is attempted through fiscal measures.

Under levelling down process or Marxist, the rich are made poor and thereby equality is created, while in the levelling up process, the poor is helped to become rich and thereby equality is created. Both measures have many practical difficulties in the process of implementation.

Marxist method

Marxists advocate extreme steps in doing away with inequalities of income. Recognition of private property and the law of inheritance are completely dispensed with and the wealth of the capital class and multimillionaires are consfiscated wherever Marxian rule is ushered in by revolt or armed coup. This is levelling down process to start with. But after establishing communist rule and after dispensing with functional distribution, they take up distribution on individual basis. The distribution will be based on the principle "each according to his ability and according to his need." This method tries to contrive a condition by which each will contribute his maximum towards national product and each will get maximum according to his need. Again, this will also present some practical difficulties in assessing the needs, as the needs are not only subjective but also unlimited.

Fiscal Policy Method

The democratic method of reducing inequalities of income is by fiscal methods. This depends on Government interventions in the redistribution of purchasing powers from the rich to the poor. This is done by a two way process:

(i) Upgrading the poor's lot on one side; and (ii) reducing fabulous earnings of the rich by imposing ceiling and restricting excess earnings, through taxes.

Upgrading the poor to become affluent is not an easy and quick process. Initially, all social and economic barriers are to be totally removed by legislation. The wages and salaries have to be raised to a level by fixing a minimum wage. In the sectors where the salaries are abnormally high, the excess should be sliced off through legislative measures or through fiscal methods such as 'deferred pay' or freezing the excess pay, etc. The wage level in all sectors should go hand in hand with productivity and inflationary conditions, and the exploitation of labour should be totally curbed by suitable legislation.

Besides, a system of social insurance to meet any eventualities like unemployment, sickness and accident and for old age would go a long way to

increase the earning capacity of workers and low income groups. Extension of *social services* like provision of medical facilities, free education, better training, housing facilities, placement facilities for the children of low income groups have become paramount duties of modern welfare states to reduce *inequalities of income*. *Massive public expenditure* to alleviate the sufferings of the poorer classes and to enable them to come up would certainly bear fruitful results and reduce inequalities.

Reduction of excess income of the rich is also not an easy affair, as the rich and capital class know the art of avoiding the tax, as well as evading the tax. Tax structure is to be contrived in a progressive way to reduce inequalities and the tax officials should be vigilant and honest.

MEASURES UNDERTAKEN BY THE GOVERNMENT TO REMOVE POVERTY

Several measures have been undertaken by the Government for alleviation of poverty and misery of the people of the country. These measures can be categorised into (1) Employment Generation programmes; (2) Programme to help the poor to acquire productive assets through subsidised credit; (3) Programme of the nature of human development. Let us very briefly study about these.

1. Employment Generation Programmes

These aim at increasing the income of the poor by providing them productive employment. The government has adopted the following employment programmes.

(a). Swaranjayanti Gram Swarozgar Yojana (SGSY)

This was launched in villages, in April 1999. Under this programme, a large number of small enterprises in rural areas will be organised, as individual enterprises, as well as on collective basis as self-Help Groups (SHGs). The poor will be granted bank loans and government subsidies to establish these enterprises. The aim is to assist poor families, so as to bring them above the poverty line. Since the inception of this programme, 14.5 lakh self-help groups have been formed covering 37 lakhs Swarozgaris.

(b) Sampoorna Grameen Rozgar Yojana (SGRY):

This was launched on September 1, 2001, with an aim of providing additional wage employment in all rural areas and thereby food security and improved nutritional levels. All rural people who are in need of wage employment and willing to do manual and unskilled work around the village will get work. The programme is implemented through the panchayat Raj institutions.

(c) Rural Employment Generation programme (REGP)

This was launched in 1995. It aims at creating employment opportunities in the rural areas and small towns. Under REGP, entrepreneurs can set up village industries by getting margin money assistance from khadi and village Industries

commission and bank loans for projects costing about Rs. 25 lakh at the maximum. So far, 1,86,252 projects have been financed and 22.75 lakh job opportunities created. During the Tenth plan a target of creating 25 lakh new jobs was set under this programme.

(d) Pradhan Mantri Gram Sadak Yojana (PMGSY)

This was launched in December 2000, as a 100 per cent centrally sponsored scheme. It aims at providing roads connections to the unconnected habitation with population of 500 persons of more in the rural areas. Upto 2004, total length of 60,024 km of rural roads had been completed with an expenditure of Rs. 7,866 crore.

(e) Prime Minister's Rozgar Yojana (PMRY)

Started in 1993, it aims at making available self-employment opportunities to the educated unemployed youth by assisting them in setting up some economically viable activity. Only such educated unemployed youth will be eligible as have family income of upto Rs. 40,000 per annum, in both urban and rural areas. So far, about 20 lakh units have been set up under the PMRY, creating 30.4 lakh additional employment opportunities.

(f) Swaran Jayanti Shahri Rozgar Yojana (SJSRY)

This plan began on December 1, 1997. Nehru Rozgar Yojana and Prime Minister integrated urban poverty Eradication programme were merged with this programme. It aims at providing self-employment or wage employment to the urban unemployed and under-employed persons. It comprises of two programmes, viz., (i) Urban self-employment programme (USEP); and (ii) Urban Wage Employment Programme (UWEP).

(g) Pradhan Mantri Gramodaya Yojana (PMGY)

This was started in 2001-02 in all the states of India. The objective is to provide sustainable human development at the village level. Under this, the States are given financial assistance in order to develop basic minimum services in the villages, such as, primary Health service, Primary Education, Village shelter, Safe Drinking water, and Healthy Nutrition. In 2001-02 rural electrification programme was also started.

2. Programmes to Help the Poor to Acquire Productive Assets

These programmes are related with the schemes providing loans to the poor at a very low rate of interest, so that they can acquire productive assets. The poor may increase their income by utilisation of productive resources. This will to a greater extent alleviate the poverty conditions among those people.

(a) Differential Rate of Interest Scheme

This scheme was launched in 1972 by giving advance loans to the poor at the very low rate of interest of 4 per cent per annum. Under this scheme, at least two-

third amount of loans are advanced to the rural poor. The poor may set up a self-employment enterprise by investing the capital obtained through these loans. Consequently, their income will increase and poverty may be alleviated.

(b) National Social Assistance programme (NSAP)

This programme was launched in 1995-96 to help the poor. It consists of the following schemes: (i) National Old Age Pension Scheme. Under this, a pension of Rs. 75 per month will be provided to old poor persons; (ii) National Family benefit scheme; (iii) Maternity Benefit scheme.

(c). National Food for Work programme

This programme was launched in November 2004 and aims at increasing food security through wage employment in drought affected rural areas in 8 States. The Centre makes available appropriate quantity of food grains free of cost to each of these States. The workers are employed to construct productive assets. It is open to all rural poor in need of wage employment. For 2004-2005, Rs. 2020 crore had been allocated for the progrmme in addition to 20 lakh tonnes of foodgrains.

(d) Krishi Shramik Samajik Suraksha Yojna

This scheme was launched in July 2001, for giving social security benefit to agricultural labourers on hire in the age group of 18 to 60 years.

(e) Shiksha Sahayog Yojna

This scheme provides educational allowance of Rs. 100 per month to the children of parents living below the poverty line for their education from the 9th to 12th standard.

3. Human Development Programmes

These include programmes like training, integrated child development and other special programmes for women, children and the down-trodden sections of the society. The important human development programmes are: (a) Minimum Needs programme; and (b) Twenty-point programme.

(a) Minimum Needs Programme

As we had studied already this was intended to raise the standard of living of the poor. This was launched during the Fifth plan and carried on vigorously during the seventh plan. This covers areas such as primary education, adult education, rural health, rural water supply, rural roads, rural electrification, rural housing and ecological improvement of urban slums. These programmes would prove beneficial to poor and weaker sections of the society.

(b) Twenty point programme

A new 20-point programme was restructured in 1982 and again in 1986, with a view to bringing prosperity to masses and relieving them the bonds of poverty. Its 20 points are: Increased in Irrigation capacity; Increased production of pulses;

and oil-seeds, Extenstion of Integrated Rural Development, and National Rural Employment programme; Fixation of ceiling on land holdings; Minimum wages to Agricultural workers; Rehabilitation of Bonded labour; Expansion of scheduled castes and scheduled tribes programme; Drinking water in villages; Improvements of slum areas; Development of power capacity; Development of forests and Gobar Gas; Family planning; setting up of primary health centres; welfare programme for women and children; primary education for children between 6-14 years; Expansion of public distribution system and fair price shops; simple Industrial policy; checking of generation of Black money; and Efficient Management of public sector industrial units.

Schemes and programmes undertaken by the Government to eradicate poverty in the rural areas every since to commencement of planning are aplenty. Community Development programme and national Extension service with the assistance of USA was he starting point in the year 1952, October 2. later on Integrated Rural development programme formed the major component of rural development and modernization efforts. IRDP would continue to be the major self-employment programme targeted towards families living below poverty line, in the rural areas. Since the commencement of Ninth plan, an integrated approach was undertaken by drafting several existing schemes with the major components. Training of Rural Artisans, Development of women and children is rural areas (DWCRA) and Ganga Kalyan Yojana were integrated into the main programme. Besides, the Government had been implementing schemes relating to land Reforms, small Farmers' Development Agencies (SFDA) and Marginal Farmers' and Agricultural labourers projects (MFAL) etc. Important schemes relating to alleviation of poverty and unemployment would be discussed in the appropriate chapters in greater detail.

Review Questions

Section - A

1. Define the term 'Poverty'.
2. Define the term 'Poverty Line'.
3. What is the method adopted by Marxists to reduce inequalities?
4. What is the Sixth Plan estimate of Poverty in India?
5. Mention the two States in India which are most poverty-stricken. What is the percentage of people below poverty line in those two States?

Section - B

1. What is law of inheritence? Explain how it increases poverty in the country.
2. Make a brief note of Dandekar and Rath estimation of poverty in India.
3. State about Deepak Nayyar's estimation of poverty.
4. What are the evils of inequalities?

Section - C

1. Analyse the causes for poverty in India.
2. What are the causes for inequalities of income in India?
3. Analyse the various methods of reducing poverty and inequalities in India.
4. Discuss about the various programmes implemented to reduce poverty in India.

Chapter 46

Unemployment Problem

It is very difficult to define precisely 'unemployment' and 'employment' although we know from common usage what they mean. Employment would be "full", literally, when every able bodied adult worked the number of hours considered normal for a fully employed person. Prof. Pigou defined full employment as one when "every body, who at the ruling rate of wage wishes to be employed is in fact employed".

From the point of view of economy as a whole, unemployment means inefficient utilization of human resources, lower production and, therefore lower standard of living of people. Its effect on unemployed workers is very serious. Besides reducing the standard of living, it may affect the morale of the worker, undermine his self-confidence, and finally with prolonged unemployment, he may lose his skills and work habits and become unemployable.

Kinds of Unemployment: Unemployment is the darker side of economic progress and it is almost a universal feature of capitalistic societies. Only the extent and causes vary from country to country. From the point of view of its cause unemployment may be classified as (i) Cyclical unemployment, (ii) Technological unemployment, (iii) Frictional unemployment (iv) Seasonal unemployment, (v) Structural unemployment.

The second method of classifying unemployment is based on its form as: (1) Voluntary unemployment, and (2) Involuntary unemployment or Disguised unemployment.

1. Cyclical Unemployment

Cyclical unemployment is caused by the trade cycles at regular intervals. The cyclical fluctuations are unavoidable and during the downswing, business activities will become inert leading to slowing down of production, which will result in unemployment. Cyclical unemployment is a necessary evil in the depressionary period of the trade cycle in capitalistic economies.

2. Technological Unemployment

Technological unemployment is the result of certain changes in the technique of production which may not warrant much of labour. For instance, rationalisation measures and introduction of a newly invented machine may lead to 'technological unemployment'.

3. Frictional Unemployment

Frictional unemployment is caused by improper adjustment between supply and demand for labour. When the demand for labour comes forth from individual businessmen, there is every possibility of the labour being unemployed either due to immobility of labour or due to non-availability of he right sort in the right place. Such type of frictional unemployment arises due to local variations as well as technological changes. Though the total demand for labour may exceed total supply, there will be unemployment at the fringe, due to lack of adjustability, mobility and inadequate organisational methods of engagement of labour.

4. Seasonal Unemployment

Due to seasonal variations, industrial activities will be affected, and consequently, the labour will remain unemployed. For instance sugar industry is a seasonal industry starting production after the harvest and closing within 100 to 120 days. In the case of agriculture, the labour remains unemployed during the off season.

5. Structural Unemployment

Structural unemployment arises when there is a drastic change in the economic structure of a country due to abnormal change in demand. In this case, the labour may be too much in supply as compared with other productive resources such as 'land' and 'capital' with which to employ it gainfully. For instance, after the First World War, there was a sharp decline in the exports of great Britain, resulting in a drastic contraction of demand for labour in the export industries.

The second classification of unemployment is based on its form:

(i) Voluntary Unemployment: Voluntary unemployment is the result of labour preferring leisure, instead of working at the prevailing wage rate and employment conditions. In this case, the individual is offered employment opportunities in any occupation or locality which are not acceptable to him. A person may be voluntarily unemployed if he has permanent sources of unearned income. It may be due to bad relationship between employer and worker. Voluntary unemployment cannot exist under full equilibrium conditions.

(ii) Involuntary Unemployment: This arises due to non-availability of jobs. It may assume different forms such as visible and disguised unemployment. Disguised unemployment is described as the adoption of inferior occupations by the workers who are capable of doing superior occupations. In other words, the shift in employment is from a higher to a lower occupation due to retrenchment and dismissal, involving the lower productivity of workers. Disguised unemployment can also be termed as "low productivity employment".

NATURE OF UNEMPLOYMENT IN INDIA

The nature of unemployment in India is entirely different from the nature of unemployment in advanced countries. India is mainly an agricultural country where majority of the people live in villages depending of agriculture. For many decades, the occupational structure of the Indian economy has not changed considerably. In the year 1901, the percentage of work-force engaged in agricultural sector was 71.7; industrial sector 12.6; and service sector 15.7. At the time of commencement of planning in India, the situation did not change much. In the year 1951, the percentage of work-force engaged in agricultural sector was 72.1; industrial sector 10.7 and service sector 17.2. Several decades of planning from 1951 too did not change the occupational structure of the country appreciably. In the year 1981, 68.7 per cent of work-force were engaged in agricultural sector; 13.5 in industrial sector and 17.8 in service sector. The situation has not changed even in 1991 census. The figures indicate that occupational structure of the country has remained more or less static with larger percentage in agriculture and small percentage in industrial and service sectors even to one-third of the working population. The little development that had taken place in secondary and tertiary sectors had absorbed the increasing population; and the distribution of work-force in proportion remains more or less static and the changes are very little and marginal. This is also evident that no structural changes have taken place due to economic development in the country in the field of work-force.

TABLE 46.1 Sectoral Employments (in million): Twelfth Plan Scenario

Year	*Agriculture*	*Mining & Quarrying*	*Manufacturing*	*Utilities*	*Construction*	*Trade Transport, Hotels*	*Finance Banking, Real Estate*	*Community, Personal and Social services*	*Total*
2011–12	242.4	2.8	51.0	1.4	51.1	71.2	10.9	37.7	468.6
2011–12	Farm	Non Farm							
	242.4	226.1							
2016–17	226.0	3.1	63.5	1.4	75.8	78.2	15.4	39.0	502.4
2016–17	Farm	Non Farm							
	226.0	276.4							
2011–12	51.74	0.60	10.88	0.29	10.90	15.20	2.33	8.06	100.00
2016–17	44.99	0.61	12.65	0.28	15.09	15.57	3.06	7.77	100.00

It could be noted from the table above that the sectoral employment scenario has changed during the 12th plan period. From 242.4 million in 2011-12 in agriculture it is expected to be only around 226 mn in 2016-17. But manufacturing, Construction, Trade, transport, Hotels and so on, Finance, banking, real estate and so on, Community personal and social services sector showed increased employment in 2016-17. This means that a very significant migration would take place during this plan period from Agriculture to other sectors. This is a good sign, as excessive dependence on agriculture only caused rural livelihood problems. Especially every monsoon failure used to result in calamities and the rural folks found it very difficult to even survive.

Hence, the nature of unemployment in India consists of three important features:

(i) Predominantly agricultural or rural unemployment: Most of the unemployed people reside in villages. Since agriculture is the most important sector of the economy providing opportunities of employment, naturally unemployment problem in India is essentially rural in character. The increasing proportion of work-force, every year drifts to agriculture for want of non-agricultural occupations. Though there are plenty of cases of urban migration, urban sector too could not provide adequate employment opportunities. However, urban unemployment is only a very small segment of the massive rural unemployment scene.

(ii) Very large disguised unemployment: We know that disguised-unemployment is low-productivity employment. Since a major portion of work-force drifts to agriculture, for want of non-agricultural occupations, they share the existing work in agriculture and consequently there will be large number of workers than what is exactly required. Most of the people would be seemingly employed; but they would be forced to idleness or most of the days in a year. The contribution of this disguisedly employed worker would be negligible or nil towards productivity in agriculture.

(iii) Open urban unemployment: Unemployment in India is mainly rural unemployment. However, urban unemployment is the off-shoot of rural unemployment. Urban unemployment will be mostly open unemployment. This means that the work-force will be mostly open unemployment. This means that the work-force will not get work opportunities that may yield a regular income. They will be totally unemployed waiting for an opportunity to get employment in the labour market. In the absence of agricultural work opportunities, the rural people will migrate to urban areas to find employment. Most of the people in the work-force will be pushed out of the village due to poverty and unemployment and they migrate to urban towns and cities for making a living and thereby swell the large army of unemployed there. This adds to open unemployment prevailing in urban areas. Another feature of open urban unemployment is the increasing rate of educated unemployed, rather than uneducated unemployed.

EXTENT AND MAGNITUDE OF UNEMPLOYMENT IN INDIA

Unemployment in India is so conspicuous, and the problem arising out of that are so vexing, that no statistical proof of its existence is necessary. There are three basic sources for collecting data regarding employment and unemployment in the country. They are: (i) Decennial Census figures; (ii) Employment market information and data furnished by employment Exchanges of the country, through the Director General of Employment and Training. Besides the above three sources, the statements made in Parliament by the Ministers concerned regarding the employment situation in the country and also five year plan document will also give some idea of the extent and magnitude of unemployment.

The backlog of unemployment in the country is estimated in the following way. The net additions to the labour-force in the country for the Five-year Plan will be determined. This will be added to the existing unemployed backlog at the commencement of the Five-year Plan. Then the extent of additional employment generated during the five-year period of the plan will be estimated. This will be deducted from the total number of unemployed to find out the backlog of unemployment at the commencement of the next five-year plan.

The concept of unemployment by the survey is measured in the following way: *(i) Usual Status unemployment:* This measures chronic unemployed who do not get work throughout the year for educated and skilled persons during the period of survey. *(ii)* Weekly Status unemployment: This measures unemployment or employment outside the labour-force for a period of seven days preceding the survey. This refers to irregular employment, remaining employed during the seven days preceding the survey. This refers to irregular employment, remaining unemployed during the seven days preceding the survey. *(iii)* Daily Status unemployment: This measures the activity of a person for each day of the seven days preceding the Survey. A person who worked for one hour, but less than four hours was considered as having worked for half-a-day. If a person worked for more than four hours during the day, it was considered as whole day. Items *(ii)* and *(iii)*, i.e., weekly status and daily status unemployment figures tell about the magnitude of the seasonal and part-time unemployment and underemployment in the country. These estimates are expressed in terms of average number of persons unemployed per week and per day respectively during the survey period.

The above mentioned Status participation rates are however estimated for different age groups, *viz.*, are group 5+, 15+ and 15-59. However, those below the age-group 15-59 and above this age group do not form part of labour-force for the discussion of unemployment figures.

Based on National Sample survey of different rounds since 1955, the magnitude of unemployment gives a very grim picture. In the year 1985, the backlog of usual status unemployment in the age group of 5+ stood at 9.20

million; for the age group 15+, 8.77 million; and for the age group 15-59, 8.67 million. According to the estimates of the seventh Five-Year plan, the back-log of such unemployment for the age group 5+ in 1990 was 8.27 million.

Regarding weekly status and daily status unemployment, the situation presents still worse picture. The unemployment for the age group 5+ is 12.18 million (weekly status); and 20.74 million (daily status) in the year 1980. The figures for the age group 15+ and 15-59 are estimated at 11.64 million and 11.36 million for weekly status unemployment. Daily status of unemployment is more is more a significant factor in the context of unemployment and also usual status unemployment. The abandoned draft Five-Year Plan (1978-83) which estimated the Daily status unemployment for 1977-78 at 20.56 millions remarked that the figures are "staggeringly" larger and larger than in any country in the world for which any employment statistics are available."

According to Raj Krishna and Amartya Sen, two noted economists, the estimation of unemployed and underemployed were 926 million and 12.20 million respectively for the year 1971. The Bhagawathi Committee on unemployment estimated the total number of jobless 18.7 million in 1971. Of this 16.1 million (86 per cent) were is rural areas and 2.6 million (14 per cent) in urban areas.

Estimates of unemployment as on April 1, 1990 reveal that by Usual Status total urban unemployment stood at 5.46 million and rural unemployment at 7.63 million, making a total of 13.06 million. By weekly status, the urban unemployment stood at 5.90 million and rural 9.98 million, making a total of 15.83 million. By daily status, urban unemployment stood at 7.57 million; rural 12.34 million, making a total of 19.90 million.

According to the projections of unemployment for 1990-2000 AD, it has been estimated as follows: (i) Backlog of unemployed in the force during 1990 = 28 million; (ii) New entrants to the labour force during 1990-95 = 37 million; (iii) Total unemployed for the 8th Plan period = 65 million; (iv) New entrants to the labour force during 1995-2000 = 41 million; and (v) Total unemployed for the 9th Plan = 106 million.

The approach paper of the Eighth Plan has accepted 3 per cent of employment as its goal for 1990-95. This is fairly realisable goal.

The total number of unemployment on the live registers of the Employment Exchanges which was 3.29 lakhs in 1976. In the year 1965, the number of applications on the live registers reached the level of 2.627 crores and in 1986, 2.885 crores. In the year 1989-90 the figure exceeded 3.5 crores. Of course, these figures do not cover those unemployed whose names were not registered at the employment exchanges.

Table : 46.2 LFPR and WFPR by Usual Principal and Subsidiary Status, 1999–2000, 2004–05 and 2009–10 (%) Persons

Unemployment rate

	LFPR			*WFPR*			*Unemployment Rate*		
	1999–2000	*2004–05*	*2009–10*	*1999–2000*	*2004–05*	*2009–10*	*1999–2000*	*2004–05*	*2009–10*
Rural	423	446	41.4	41.7	439	408	1.5	1.7	1.6
Urban	354	382	36.2	33.7	365	35	4.7	4.5	3.4
All		43	40	39.7	42	39.2	-	2.3	2

Labour Force (LFPR) and Work Force Participation Rates (WFPR). The Unemployment rate since 1999-2000 till 2009-10 is presented in the table above. It clearly shows that the unemployment rate is gradually going down over these ten years both in rural as well as urban areas.

Table - 46.3

Population and Labour force Projections

Year	*2011*	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*
Total population (0+)	1,210.2	1,227.1	1,244.0	1,260.6	1,277.1	1,293.5	1,309.7
15 and above population (%)	70.2	71.0	71.8	72.6	73.4	74.2	75.0
Population (15 and above) in millions	849.6	871.3	893.2	915.2	937.4	959.8	982.2
LFPR for 15 and above age group (%)	56.3	55.4	54.6	53.7	52.9	52.0	51.2
Labor force (15 and above) (in millions)	477.9	482.7	487.2	491.5	495.4	499.1	502.4

Source: NSS Round and Census 2011.

The 12th Plan document also projected the size of labour force participation by 2017. From Table 46.3 it would be clear that as the population increases, the percentage of population in 15 and above years Labour force above 15 years age group would also increase. When the size of labour force increases, unless employment opportunities also increase, the unemployment would only keep on increasing

Table - 46.4

Unemployment Rate by Usual Principal and Subsidiary Status, by Social Group, 2004–05 and 2009–10 (%)

Sector	*SCs*			*STs*			*All*		
	1993–94	*2004–05*	*2009–10*	*1993–94*	*2004–05*	*2009–10*	*1993–94*	*2004–05*	*2009–10*
Rural	1	1.6	1.6	0.6	0.8	1.4	1.2	1.7	1.6
Urban	4.4	5.3	3.2	3.9	3.1	4.4	4.5	4.4	3.4

It is interesting to observe from Table 46.4 that the Unemployment rate among SCs and STs in rural areas had increased between 1993-94 and 2009-10. But in the urban segment this rate has fallen down in the case of SCs but gone up in the case of STs. This would mean that specific policies targeting these reserved community groups need to be strengthened so as to enable them to get the benefit of employment schemes and projects.

State-wise unemployment: State-wise figures of incidence of unemployment reveal that West Bengal stands first in unemployment followed by Tamil Nadu and Uttar Pradesh. The three Stages together account for nearly one-third of the total unemployed in the country. Andhra Pradesh, Tamil Nadu, Kerala, West Bengal and Uttar Pradesh together have 48.21 per cent of the total population of the country; and these States account for 56 per cent of the total unemployed in the country.

Bihar, Maharashtra, Rajasthan, Karnataka and Gujarat constituting 34.39 per cent of the population of the country account for only 28 per cent of total unemployed in the country. These States have lesser incidence of unemployment as compared to the States mentioned in the previous paragraph.

Madhya Pradesh, Orissa, Haryana, Punjab and Assam constituting 18.57 per cent of the population, account for 14 per cent of unemployed in India.

A review of incidence of unemployment in the States reveal that 75 per cent of India's unemployment is concentrated in six States, viz., Tamil Nadu, Andhra Pradesh, Kerala, West Bengal, Maharashtra and Bihar. If U.P. is also added to this, the percentage comes to 80.

Another disquieting feature has been that the extent of unemployment is rising year after in spite of massive investments in plans and creation of additional jobs. Thus, India faces the paradoxical problem of increasing unemployment, when employment is generated more and more, plan after plan.

We have the results of the 50th Round, 55th Round and 61st Round of the National Sample Survey Organisation (NSSO) which conducted the quinquennial survey on employment and unemployment. The NSSO's surveys are the most exhaustive sources of information on the employment situation. The trends of unemployment in India between 1993-94 to 2004-05 are as follows.

1. The unemployment rate went up between 1993-94 to 2004-05. During the reference period, unemployment rates for males increased from 5.6 per cent to 8.0 per cent in rural areas and from 6.7 per cent to 7.5 per cent in urban areas.

2. The unemployment rate for females increased from 5.6 per cent in 1993-94 to 8.0 per cent in 2004-05 in rural areas and form 10.5 per cent to 11.6 per cent in urban areas.

3. Further, unemployment rates on the basis of current daily status were much higher than those on the basis of usual status (unemployed on an average in the reference year) implying a high degree of intermittent unemployment. This could be mainly because of the absence of regular employment for many reasons.

4. Urban unemployment rates (current daily status) were higher than rural unemployment rates for both males and female in 1993-94. However, in 2004-05, rural unemployment rates for males was higher than that of urban males.

5. Unemployment rates varied sharply across states. States where wages are higher than in neighbouring ones because of strong bargains or social security provisions, such as high minimum wage, had high incidence of unemployment, in general.

6. At the all India level these estimates of current daily status unemployment indicate a worsening of the unemployment situation during the period of economic reform in all the four population segments, viz., rural males, females, urban males, and females.

7. The increase in the current daily status unemployment rate between 1993-94 and 2004-05 is the steepest for rural females (64 per cent) followed by rural males (60 per cent). For urban males, the increase in current daily status unemployment over the period is 21 per cent while for urban females, the increase over the period is 11.4 per cent.

Economic growth in a country is usually expected to generate employment. However, in India, during the planning period, most of the time, economic growth has been achieved jobless. This is yet another clear indication that growth due to planning has not trickled down to all sections of the society, and the growth benefits have been cornered by the elite class.

In recent past, there has been deceleration in the growth of employment in India, in spite of accelerated economic growth of employment in India, inspite of accelerated economic growth. This can be explained in terms of declining employment elasticity in almost all the sectors of he economy with minor exceptions. Overall employment elasticity declined in India from 0.52 during 1983 to 1993-94 to the level of 0.16 during 1993-94 to 1999-2000.

After 2000, the sample surveys conducted indicated a different story in the states. This could be noticed from the table below. From the table it could be understood that in Tamilnadu, the unemployment among women in all age group is more than the men. The sex ratio of unemployment clearly indicates that for every 1000 persons 930 females are unemployed. This situation is much worse in other states.

Ministry of Labour and Employment and according to its survey only 47.8% of the population who was the part of the survey, was employed. Expectedly, urban areas obviously have a greater number of jobs when compared with the rural areas. While the job is secure for more than 80% of the population in urban areas on an average, but the same in rural areas will be 53%. Added to that almost half the rural population have jobs for less than a year, because of seasonal agricultural patterns.

The table 46.6 brings out a very encouraging scenario in unemployment Between March, 2016 and February 2017, the unemployment rate in India as a whole, as well as in urban and rural areas has shown a declining trend. This is a very positive sign to notice. This only implies that in India, slowly the employment opportunities are increasing to absorb additional work force. Further majority of the employment schemes have also started benefitting the targeted groups.

TABLE 46.6 UNEMPLOYMENT RATE (%)

Month	*Unemployment Rate (%)*		
	India	*Urban*	*Rural*
Feb 2017	4.82	6.27	4.07
Jan 2017	5.98	7.65	5.14
Dec 2016	5.98	7.63	5.17
Nov 2016	5.69	7.05	5.01
Oct 2016	6.34	6.89	6.06
Sep 2016	8.97	10.33	8.30
Aug 2016	9.54	11.42	8.63
Jul 2016	8.47	10.97	7.21
Jun 2016	8.92	10.24	8.25
May 2016	9.66	11.96	8.52
Apr 2016	9.02	11.56	7.78
Mar 2016	8.75	11.63	7.32

46.13 **Table 46.7 indicates employment Elasticities in major sector of the Indian economy:**

Table 46.7

Employment Elasticities in major sectors of India

Sector	1983 to 1987-88	1983 to 1993-94	1993-94 to 1999-2000	12th Plan
Agriculture:	0.87	0.70	0.01	0.04
Mining & Quarrying:	1.25	0.59	−0.41	0.52
Manufacturing:	0.59	0.38	0.33	0.09
Construction:	2.81	0.86	0.82	1.13
Electricity, Gas & Water Supply	0.30	0.63	−0.52	0.04
Trade, Hotels and Restaurant	0.87	0.68	0.62	0.19
Transport, Storage & Communication	0.47	0.55	0.63	0.19
Finance, Real estate insurance & Business Services:	0.49	0.45	0.64	0.66
Community, Social & personal services:	0.52	0.68	−0.25	0.08
All Sectors:	0.68	0.52	0.16	0.19

(Source: Planning Commission, Tenth Five year Plan 2002-07, Vol. I P. 163, 12 Five year plan appendix tables)

Further, we know that Indian economy is divided into organised and unorganised sectors. The organised sector consists of public sector and private sector. The unorganised sector in the economy is quite large, as the entire agriculture and most of manufacturing and personal services are in the unorganised sector.

Organised sector in 1999-2000 was 28.11 million, i.e., about 7.08 per cent of the total employment of about 397 million. In spite of several economic reforms, employment in the organised sector has been declining in percentage terms. Growth rate of employment in the organised sector has been declining. The Table 46.3 indicates employment and growth-rate of employment in organised and unorganised sectors.

Table 46.8

Employment in Organised & Unorganised Sectors

Sector	Employment (in Million)			Growth Rate Percent per annum	
	1983	1994	1999-2000	1983-84	1994-2000
Total Employment	302.75	374.45	397.00	2.04	0.98
Organised Sector	24.01	27.37	28.11	1.20	0.53
Public Sector	16.46	19.44	19.41	1.52	−0.03
Private Sector	7.55	7.93	8.70	0.45	1.87
Unorganised Sector	278.74	374.08	368.89	2.01	1.02

(Source: Economic Survey 2001-02, Ministry of Finance, p. 240)

Table 46.8 reveals that unorganised sector in the economy accounts for larger percentage of employment; it is around 93 per cent of the labour force. In the case of public sector, the government in the liberalisation are, pursued the policy of reducing employment and as a result, employment declined from 19.44 million in 1994 to 19.41 million in 1999-2000. The private sector has always accounted for less than one-third of the employment in the organised sector. In the post-liberalisation are, the government erroneously pinned its hopes on the private sector for substantial employment generation. The so-called corporate sector, in spite of several concessions and liberalisation, corporate sector, in spite of several concessions and liberalisation, could not offer larger employment opportunities, as their avowed aim is profit maximisation. The hope of the future lies only in unorganised sector in employment generation.

From Table 46.9 it is important to observe that the total number of all types of government job has declined from 194.66 lakh persons in 1995 to 175.48 lakh persons. The same situation also prevailed in public sector industrial units. However, the private sector has shown a marked improvement in employment of persons during this period as it rose from 80.59 lakh persons to 114.22 lakh persons. In a developing country it is obvious, that the government sector would slowly give place to private sector, as several new industrial and other initiatives would all be given to private sector. However, in terms of job security, still the government employment is rated as the best by the work force of all types.

PUBLIC AND PRIVATE

(Lakh persons as on March 31)

	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011
PUBLIC SECTOR											
By Branch											
Central Government	33.95	32.73	31.33	30.27	29.38	28.60	28.00	27.39	26.60	25.52	24.63
State Governments	73.55	74.60	73.67	72.22	72.02	73.00	72.09	71.71	72.38	73.53	72.18
Quasi-Governments	65.20	63.26	59.01	58.22	57.48	59.09	58.61	57.96	58.44	58.68	58.14
Local bodies	21.97	22.55	21.79	21.26	21.18	21.18	21.32	19.68	20.73	20.89	20.53
Total	**194.66**	**193.14**	**185.8**	**181.97**	**180.07**	**181.88**	**180.02**	**176.74**	**177.95**	**178.62**	**175.48**
By Industry											
Agriculture, hunting etc.	5.39	5.14	5.06	4.93	4.96	4.69	4.75	4.71	4.77	4.78	4.77
Mining and quarrying	10.16	9.24	8.47	10.30	10.14	11.46	11.37	11.21	11.12	11.03	10.90
Manufacturing	17.56	15.31	12.60	11.89	11.30	10.92	10.87	10.44	10.60	10.66	10.16
Electricity, gas and water	9.35	9.46	9.13	8.74	8.60	8.49	8.49	7.96	8.39	8.35	8.31
Construction	11.64	10.92	9.48	9.32	9.11	8.94	8.66	8.52	8.45	8.59	8.47
Wholesale and retail trade	1.62	1.63	1.82	1.81	1.84	1.82	1.78	1.65	1.74	1.71	1.70
Transport, storage & communications	31.06	30.77	29.39	28.15	27.51	26.75	26.37	26.34	26.01	25.29	23.84
Finance, insurance, real estate etc.	12.83	12.96	13.77	14.08	14.08	13.90	13.69	13.47	13.56	14.13	13.61

Community, Social & personal services	95.04	97.71	96.09	92.76	92.52	91.76	90.90	88.54	90.11	90.51	90.95
Total	**194.66**	**193.14**	**185.80**	**181.97**	**180.07**	**178.73**	**176.88**	**172.84**	**174.75**	**175.05**	**172.71**
PRIVATE SECTOR											
Argiculture, hunting etc.	8.94	9.04	8.95	9.17	9.83	10.28	9.50	9.92	8.96	9.23	9.18
Mining and quarrying	1.03	0.81	0.66	0.65	0.79	0.95	1.00	1.11	1.15	1.61	1.32
Manufacturing	47.06	50.85	47.44	44.89	44.89	45.49	47.50	49.7	51.98	51.84	53.97
Electricity, gas and water	0.40	0.41	0.50	0.47	0.49	0.40	0.50	0.51	0.64	0.64	0.70
Construction	0.53	0.57	0.44	0.45	0.49	0.55	0.70	0.69	0.80	0.91	1.02
Wholesale and retail trade	3.08	3.30	3.60	3.51	3.75	3.87	4.10	2.72	4.72	5.06	5.46
Transport, storgage & communications	0.58	0.70	0.79	0.81	0.85	0.87	1.00	1.04	1.32	1.66	1.89
Finance, insurance, real estate etc.	2.93	3.58	4.26	4.58	5.23	6.52	8.80	10.96	13.11	15.52	17.18
Community, Social & personal services	16.03	17.23	17.56	17.92	18.20	18.78	19.50	21.73	20.23	21.40	23.50
Total	**80.59**	**86.46**	**84.21**	**82.46**	**84.52**	**87.71**	**92.40**	**98.38**	**102.91**	**107.87**	**114.22**

(*Source*: Data.gov.in).

CAUSES FOR UNEMPLOYMENT

Though we cannot attribute a single factor as the root-cause of unemployment in India, we can discover the general causes, making a cumulative effect on the employment problems of the country. The general reason for unemployment in the economy is that the growth of labour-force is more than the generation of employment in the economy. We know that the growth of labour-force is the result of growth of population. The new jobs created in the economy are inadequate to absorb the excess labour-force generated due to increase in population. Our Industrial and Service sectors could not absorb the labour-force offering employment. So, the first and the principal cause for unemployment is the rapid increase in population.

1. Underdevelopment: the main reason, besides ever-increasing population, is the character of Indian economy which is underdeveloped. The volume of economic activities is determined by agriculture alone and this primary sector exhibits is determined by agriculture alone and this primary sector exhibits low rate of development. The non-agricultural sector, particularly, modern industrial sector is growing at a very low-rate and it could not provide increasing avenues of employment. Before the advent of the British rule, India had flourishing indigenous small-scale industries, providing employment for larger sections of the population. During the British period, these indigenous small-scale and cottage industries were ruthlessly destroyed and the people were forced to seek employment in agriculture. Had these small-scale industries been made to expand and integrated with modern industries, so much of overcrowding in agriculture would have been avoided. After attainment of independence, some favourable environment was created for the development of industries creating more job opportunities. But, the industrial sector fell far short of plan targets and needs of the economy.

The slow capital-formation, over-crowded agriculture, inadequacy of irrigation facilities, shortage of fertilizer, transport bottlenecks, unsatisfactory power supply etc., adversely affected the expansion of the economy and quick industrialization and also growth in agriculture. This, combined with enormous increase in population has accentuated the problem of unemployment very severely.

2. Poor Employment Planning: Another reason for massive unemployment in the country was the gross neglect of 'employment planning' till very recently. The Government and the Planning Commission did not devote much interest in the employment objective of planning. They underestimated the human resources of the country.

The Government and Planners were much obsessed in achieving financial targets in planning, rather than employment targets. Employment planning was not integrated with the planning strategy as a time-bound programme; neither

was the employment objective mentioned precisely in the long-term perspective of plans. In short, our planning was not at all an employment-oriented planning. The planners, for a long time did not consider about employment creating projects or labour-intensive programmes. They did not develop a strategy to incorporate the absorbing capacity of 'surplus labour' in the villages. Only during the Fourth Plan onwards, some attempts are being made for employment orientation. It is a faulty notion that mere investment will lead to employment generation.

3. Mass Output of Graduates from Indian Universities: Indian Universities are producing matriculates, graduates and postgraduates of very low standard and quality and incapacity. This is done on a massive scale, aggravating the problem of educated unemployment. Matriculates join undergraduate courses, as they could not get employment; graduates join postgraduate courses, as they could not get any employment; and in most cases, higher education is pursued without a sense of 'direction' or 'ambition'. It is no exaggeration that most of colleges and universities have become asylums for unemployed people. Every year, the employment seekers in this category are increasing with a huge backlog. The percentage of educated unemployed to the total unemployed exceeds 50 per cent. Further, the type of education imparted is neither job-oriented, nor skill-oriented, and as such, every year the backlog of unemployment is increasing.

4. Other Causes: Of the many other causes, inadequate development of non-agricultural sector can be cited; and this sector has not been made labour-intensive to absorb unemployed people. Rationalisation and modernisation in some cases have resulted in retrenchment and unemployment. Further, slowing down of production-rate in some industries, due to import restrictions, has resulted in their inability to absorb the growing labour force.

In our country, there are plethora of concession and subsides relating to investment of capital. Unfortunately, there are none for employment of labour. The depreciation norms of capital, investment allowance, subsidy for investment in backward areas etc., are all related to capital cost of the plant. There are no concessions for using labour-intensive technology. Entrepreneurs will be enthused only in investing capital-intensive projects, rather than labour-intensive projects, as the labour cost will move with inflation, while debt-service (payment of interest for capital) will not. Further, the job security laws of the country dissuade the employer from employing adequate labourers.

REMEDIAL MEASURES FOR UNEMPLOYMENT

Unemployment in India is a very complex problem requiring attack on a wider front. The following suggestions are made for solving the problem:

Long-term Measures

(i) Rapid economic development through diversified industrialisation with labour-intensive projects;

46.19

(ii) The present literary education should be given up for technical and vocational education;

(iii) Scientific methods should be adopted in agriculture in order to increase employment potential;

(iv) The galloping rate of population growth should be effectively checked in all communities.

(v) Compensatory public works should be started and employment exchange established at all levels.

Short-term Measures

(i) Establishment of small industries;

(ii) N.E.S. to be extended as it would create employment potential;

(iii) Road transport to be developed;

(iv) Slum clearance and housing schemes to be taken up; and

(v) Private building activity to be encouraged.

Remedies to Rural Unemployment

The problem of rural unemployment can be solved only by modernizing agriculture and absorbing the excess labour by industrializing the rural areas with agro-industries. This has not been given adequate attention by the government and also thought by researches. This would facilitate the employment of village folks without migration. This would help modernizing agriculture, besides the rural sector getting greater share of the value added by the agro-industries, resulting in increased income of the villages.

Agro-Industrial Integration: The complementary aspects of agriculture and industry, if pushed through with a deliberate process and planning, with a definite policy, we have agro-industrial integration. If the integration process is not pursued, agriculture in a backward economy cannot develop. If agricultural produce continue to be processed outside agriculture, all the resultant gains are being mopped up by the entrepreneurs who are outside agriculture. Till this situation continues, agriculture will be constrained to supply industries with raw materials at depressed prices and industries will be free to supply agriculture with inputs requirements at inflated prices. This result in rural impoverishment, unemployment and underemployment.

What is too often met with Indian villages is that the urban capitalist starts a Khandsari unit or cotton gin or oil mill and utilize local labour and raw materials and earns huge profit, which are transferred from the villages to remote cities for the glorification of the latter and dwindling of the former. On the other hand, if the villages make use of their own resources, capital or loan capital, labour and land for establishing the new agro-industries, then the villages would buzz with activities which will generate new income, reduce dependence on agriculture and

create more rural employment and larger capital for agriculture. By introducing agro-industries like sugar, cotton, oilmill, etc., the rural community would be inducted to industrial culture, as the industries are associated with materials they produce in the field. This will create a sense of belonging to the industries of the area by the rural folks, and these villages would become growth-centres without population shifts. The income-generation and multiplier effect would contribute to the ages would help in further industrialization of the countryside with secondary agro-industries. Thus through agro-industrial integration and modernization of agriculture, more employment opportunities can be created, by means of forward and backward linkage effects. This is the only way of solving rural unemployment. The government should take up this as a policy measure and implement them. In this process, the villagers alone will be share holders; they are the workers; they are the marketers and they are the owners and beneficiaries of agriculture and industries in their areas.

BHAGAWATI COMMITTEE ON UNEMPLOYMENT

The Government of India set up a committee in December 1970 under the chairmanship of B.Bhagawati, M.P., to assess the extent of unemployment and underemployment in all its aspects and to suggest remedial measures. The committee submitted its report in May 1973. Apart from the statistical data collected by this expert committee regarding the magnitude of unemployment, the recommendations for mitigating the severity of unemployment are more important and they stand in goodstead even today for solving unemployment problem.

The import recommendations of the committee are:

1. National Commission on Unemployment: A National Commission on Employment and Manpower planning should be set up by merging some of the divisions now functioning under various ministers. A Department of Employment and Manpower should be set up, both at the Central and State levels, to make a comprehensive assessment and submit periodical reports on the employment situation to a parliamentary committee constituted for this purpose.

2. Employment Generation through Cess: A suitable portion of he resources available for development should be set apart for employment generating schemes. If more resources are required, it can be raised by increasing the existing rates of particular taxes or by imposing a separate cess or surcharge on "the more fortunate classes in all sectors, including agriculture, who are making large gains or incomes".

3. Massive Rural Works: To reduce unemployment in agriculture, the Committee has suggested that all rural development programmes should be made employment-oriented for the next plan period and should include a programme of

rural works consisting of irrigation, soil conservation, land reclamation and rural roads, etc., on a massive scale

4. Labour-Intensive Industries: The Committee is of the view that employment potential could be increased by reshaping the pattern and structure of industrial development, accelerating labour-intensive small scale industries over capital-intensive industries.

5. Over-time work to be Prohibited: In a view of the wide-spread prevalence of unemployment and underemployment, in the country, the practice of overtime working is socially undesirable. Instead recruitment of more labour should be encouraged.

6. Working Hours: The number of weekly working hours should be reduced from 48 hours to 41 hours and seven day week should be adopted.

7. Vocationalising Education: For creating more employment opportunities for the educated unemployed the Committee has recommended vocationalisation of education. Scholarships and other concessions should be made available to students who take up vocational education. Further the Committee has recommended the conversion of single-teacher schools into multi-teacher schools, a phased programme for adult literacy, fostering and encouraging self-employment among technicians, engineers, etc., by providing financial assistance.

8. Unemployment Insurance: Some measures of insurance against loss of employment should be given a high priority and a scheme in this connection should be introduced as a matter of urgency.

9. Population Planning: The Committee has recommended that a well-concerned and positive programme of population planning should be adopted and effectively implemented to restrict the growth of population.

10. Tax Concession: Tax Concession should be extended to export items manufactured by labour-intensive industries.

11. Development of Backward Areas: The Committee has recommended that the priority industries and industrial units in backward areas should transfer to a special investment reserve fund upto 30 per cent of pre-tax profits to be utilised for investment in backward areas. The committee has suggested the establishment of regional development corporations for promoting development of backward areas.

TASK FORCE ON EMPLOYMENT OPPORTUNITIES

S.P. Gupta Special Group Recommendations

The task force on employment opportunities headed by Montek Singh Ahluwalia presented its report to the Planning Commission on July 1, 2001. This report was not only severely criticised by all economists and sociologists of the country; but also rejected by the policy-makers, stating that most of the

recommendations were employment restricting, rather than employment generating. The Planning Commission sidelined this report completely by appointing another special group under the Chairmanship of S.P. Gupta on September 5, 2001. The aim of the task force is to generate 10 million employment opportunities per year. The recommendations of the S.P. Gupta Special Group Report on employment is unique in several respects, as the approach made by the group was very pragmatic. The features of this study group are as follows:

1. It rejected totally that the reform process is the panacea for all ills in the economy and also unemployment; it also rejected the thesis that the organised sector, more so the corporate sector, is capable of ushering in an era of full employment or near-full employment in the economy and removal of poverty in the country.

2. The hope of eradicating unemployment problem in the country lies on the unorganised sector which provides employment to 92 per cent of the labour force. The focus of attention should be on the unorganised sector in generating more employment. This unorganised sector has been neglected so far by the planners and policy-makers.

3. It repudiates the theory that the amendments of the Industrial Disputes Act to give power to the employers to hire and fire shall lead to increase in employment. This was suggested by Montek Singh Ahluwalia report. According to S.P. Gupta, this will result more of firing than of hiring, and this will not in any way increase employment generation.

4. Another salient feature of S.P. Gupta's suggestion is for improving productivity and job quality of the unorganised sector. The report suggests the need for major changes in legislation guaranteeing better working conditions, of the unorganised sector at the mercy of demand and supply of market forces. This is really an excellent suggestion, as, in the most of the unorganised sector, the workers do not even get a living wage; nor do they get any benefit like bonus or other social security measures, as done in the organised sector.

5. This report lays down policy prescription for providing 50 million jobs during the Tenth Plan, 30 million based on 8 per cent growth of GDP and 20 million based on special programmes, about which we had studied already.

6. The report emphatically states that the concept 'zero elasticity of employment in Agriculture' is altogether wrong. Rather it stresses the need to employment is generated through agriculture.

7. Again the concept that small medium industries are being killed by the large industries is totally wrong. On the basis of international experience, it should be realised, that the small and medium industries should not only coexist with large industries, but they should also be contributors to large industries and thereby help the industrial growth of the economy.

8. Further, the report underlines the need for changing the credit policy of the banking system and arrest the decline in the share of the bank credit to the unorganised sector. During the short period of six years, *i.e.*, from 1993-94 to 1999-2000, the share of the bank credit to the unorganised sector had declined from 54 per cent to 37 per cent.

9. Moreover, the government should view problem of unemployment very seriously and extend very high priority and intervene so as to fulfil the targets effectively. The government should not treat the problem of employment creation with a routine attitude of "business as usual". This sort of casual attitude will not generate employment.

10. The report highlights the fact that the employment elasticity of the unorganised sector vis-a-vis the organised sector is 3.23 times and it is imperative that the State must take all steps to protect and strengthen this unorganised sector.

11. S.P. Gupta's Special Group of Study rightly points the lukewarm attitude of the civil administration in the urban areas and panchayat administration in rural areas. The report categorically states that unless the rural and civil administration work hand-in-hand with the State government at the end of the Tenth Plan will reach 40 million, *i.e.*, nearly 10 per cent of the labour force which will present a very grave and grim prospect.

The special Group Report expressed its scepticism in the following words: "It is, however, worth mentioning that unless for every programme scheme, appropriate delivery systems are developed, most of the above employment generation targets may not materialise. All these will result in poor governance. For correcting this gap, among many other necessary measures, the key one is to launch an ambitious civil service renewal programme aimed at strengthening of the delivery institutions, direct administration and the Panchayath.

Employment Generation Programmes

Many programmes have been launched in the country to solve the unemployment problem and also to mitigate the severity of rural unemployment programmes.

These programmes are mainly of two kinds; the first one seeks to promote self-employment, by providing the poor with productive assets, financed by subsidy and credit. The second one seeks to provide wage-employment, and in the process create community assets. Of these two types of programmes, the latter seems to be more popular and the impact is very encouraging. On the other hand, self-employment schemes do not score better, as the poor do not know much about these programmes. Wage-employment schemes also suffer from some deficiencies. These schemes are not well integrated with area development programmes and the assets created do not have potential for sustained employment generation in future. Most of the schemes are welfare-schemes,

rather than employment schemes creating economic potential. Further, most of these scheme-benefits are cornered by the richer classes, under the guise of backward castes.

The important programmes and schemes are: (i) Integrated Rural Development Programme, and its two sub-programmes, viz., (a) Training for Rural Youth for Self-Employment (TRYSEM) and (b) Development of Women and Children in Rural areas (DWCRA). (ii) Jawahar Rozgar Yojana.

We have studied already about IRDP which seeks to promote self-employment by providing productive assets and inputs to the rural poor. TRYSEM provides training in technical skills to poor rural youth to enable them to take up self-employment or wage-employment. DWCRA attempts to promote economic activities among groups of poor rural women. Jawahar Rozgar Yojana is designed to generate employment for the rural unemployed and underemployed by taking up works for creating productive economic assets.

Besides, Self-Employment Programmes for the Urban Poor (SEPUP), Scheme for Self-Employment to the Educated Urban Youth (SEEUY), and Nehru Rozgar Yojana (NRY) are some of the programmes initiated for giving scope for employment of the poor in urban areas. SEPUP is now merged with the scheme under NRY.

Policy Implication of Schemes

The policy adopted in the above schemes are as follows: (i) Identification of poor people and weaker sections of the society on the basis of Caste, and income, as well as assets. (ii) Investigation of their economic problems and introducing suitable programmes for rising their income. (iii) Extension programme to inform them. (iv) Providing them with package of inrastructural facilities; and (v) finally evaluating the programmes from time to time.

Jawahar Rozgar Yojana Scheme

Jawahar Rozgar Yojana was launched in April 1989, merging the former two schemes, viz., National Rural Employment Programme and Rural Landless Employment Guarantee Programme. This is an ambitious employment guarantee programme. This seeks to guarantee employment to atleast one person in rural family living below poverty line. This scheme is being impleminted though the village panchayats. The special feature of this scheme is that 30 per cent of the employment generated will be reserved for women.

The Central government will sponsor the scheme upto 80 per cent and the balance 20 per cem of financial requirement should be met by the State government. Panchayats with a population ranging between 3000 and 4000 will be given annual financial assistance ranging from Rs. 80,000 to one lakh a year.

As a result of this expenditure, the following physical achievements were recorded: *(i)* Constructions of wells under Million Well Scheme: 4.47 lakhs; *(ii)* Development of house sites: 49,478; *(iii)* Construction of houses: 14.80

lakhs; *(iv)* Construction of school buildings; 1,68,993; *(v)* Construction of Rural Roads: 6,74,000 kms; (vi) Drinking water wells: 4,89,000; *(vii)* Construction of village tanks: 3,29,000; and *(viii)* Area covered under Social Forestry: 6,55,000 hectares.

The programme is no doubt a good one, but executed not thoroughly and efficiency without proper planning. Though this programme has been implemented in 2,20,000 villages all over the country, the quality of performance is far from satisfactory. In their haste and anxiety to implement this scheme quickly to a large area. the policy-markers sacrificed the quality of assistance. The programme has been very vigorously implemented in high wage regions, like Punjab, Western parts of Uttar Pradesh and Maharashtra, where the minimum wage would attract none, especially physical labour.

Evaluation of J.R.Y Scheme

The Government of India, during the year 1992 undertook concurrent evaluation of Jawahar Rozgar Yojana Scheme through research institutions, covering all districts in the country. The main findings of the concurrent evaluation were: (i) Nearly 73 per cent of the available funds were spent by village panchayats. (ii) In almost all States, the average wage paid per manday to the unskilled workers were more or less equal to the minimum wages prescribed under the minimum Wages Act. (iii) The Wages and non-wage component of the expenditure of JRY works undertaken by the Village Panuchyats at the All India level was 53:47. (iv) In 64 per cent of the cases, the Muster Rolls were maintained. (v) Of the total assets Created, about 74 per cent were either incomplete or not according to laid down norms. (vi) In 17.5 per cent cases, assets created were not maintained by any agency.

The Report indicated the following Areas of Concern:

(a) In majority of cases, panchayat heads were not given any training for undertaking JRY works. (b) In many States, the Annual Action Plans were not at all discussed in the village Punchayat meetings. (c) In some States, viz., Andhra Pradesh, Kerala, Maharashtra, Tamil nadu and Pondicherry, there was disparity in the average wage paid per day to male and female unskilled workers. (d) The workers who belonged to the category of 'ineligibles' also took advantage of the programme.

The overall impact of JRY in generating employment has been much below the target laid down. Though it had helped the weaker sections to acquire a house or access to drinking water, much remains to be done to make a perceptible improvement in the quality of life.

When JRY completed eleven years in March 1999, it was restructured with effect from April 1999 and was renamed as *Jaahar Gram Samridhi Yojana* (JGSY). The objective of JGSY was creation of infrastructure and durable assets at the employment to the rural poor. The wage employment under JGSY was provided

to persons below poverty line. There was no sectorial earmarking of resources under JGSY. However, 22.5 per cent of annual allocation had to be spent on schemes for the benefit of scheduled castes/Tribes and 3 per cent for creation of barrier free infrastructure for the disabled.

Indira Awas Yojana (IAY)

This scheme was implemented since 1985-86 under Rural Landless Employment Guarantee programme (RLEGP) to provide houses free of cost to the member of SC/ST, as well. From 1989-90, the scheme has been continued under JRY. From 1993-94, the scheme has been extended to the poor categories, besides SC/ST, as well. From 1985-86 to 1994-95, total expenditure under Indira Awas Yojana component stood at Rs. 2,197.5 crores resulting in he construction of 18,43,190 houses expenditure per house worked to Rs. 11,922.

Million Wells Scheme (MWS) which was launched as a sub-scheme of RLEGP during 1988-89 to provide open irrigation wells, free of cost to poor and small and marginal farmers belonging to SC/ST and freed bonded labourers, was brought under JRY scheme by ear-marking 30 per cent of he funds for the purpose. From crores, resulting in the construction of 7,84,880 irrigation wells. Average expenditure per well worked to Rs. 31,831.

Nehru Rozgar Yojana

While, Jawahar Rozgar Yojana is scheme of employment generation in rural areas, Nehru Rozgar Yojana is the scheme for the Urban areas. This is operating since October 1989. This scheme aims at creating one million jobs annually, by affording opportunities for self-employment and also wage-employment. This scheme is intended for urban poor living below poverty line.

This consists of three sub-schemes: *(a)* Scheme of Urban Micro enterprises (SUME); *(b)* Scheme of Urban Wage Employment (SUWE); and *(c)* Scheme of Housing and Shelter Upgradation (SHASU). So far, 6.55 lakh beneficiaries have been assisted in setting up of micro enterprises under SUME. About 541.52 lakh mandays of work have been generated through the consruction of economically and socially useful public assets under SUWE and SHASU till 1994-93, 1.52 lakh in 1993-94, 1.25 lakh in 1994-95 and 0.6 lakh during 1997-98. Total mandays of employment generated under NRY was 140.5 lakh in 1992-93, 123.7 lakh in 1993-94, 92.9 lakh in 1995-96 and 44.6 lakh during 1997-98 as against the target of 135.8 lakh. In December 1997, this programme was amalgamated with Swarna Jayanthi Shahakari Rozgar yojana (SJSRY).

Swarna Jayanthi Shahakari Yojana: (SJSRY)

The SJSRY, substituted in December 1997 the various programmes operated earlier for poverty alleviation. This is funded on 75:25 basis between the Centre and the States. During the three-year period (1997-98 and 1999-2000), a total of Rs. 353 crores were spent generating 21.8 million mandays of employment.

Swarna Jayanthi Gram Swarozgar Yojana: (SGSY)

This programme was launched on April 1, 1999 as a single self-employment programme for the rural poor. It replaces the earlier self-employment and allied programmes – IRDP, TRYSEM, Development of Women and Children in Rural Areas (DWCRA), Supply of Improved Tool-kits to Rural Artisans (SITRA), Ganga Kalyan Yojana (GKY) and Million Wells Scheme (MWS). SGSY takes into account all the strength and weaknesses of the earlier self-employment programmes. It family assisted under this programme will be brought above the poverty-line in encouragement to tap the inherent talents and capabilities of the rural poor. It will target at least 50 per cent SCs/STs, 40 per cent women, and 3 per cent disabled. This is a credit-cum-subsidy scheme. Funds under the SGSY will be shared by the Central and State Governments in the ratio of 75:25. Since inception of the scheme upto December, 2002, a total allocation of Rs. 4,353.70 crore was made crore to benefit 32.48 lakhs Swarozgaris. Upto December 31, 2006, 24.38 lakh Self-Help Groups (SHGS) have been formed and 73.25 lakh swarojgaries have been assisted with Rs. 16,444 Crore.

Sampoorna Grameen Rozgar Yojana: (SGRY)

This scheme was launched in September 2001. The schemes of Jawarhar Gram Samridhi Yojana (JGSY) and Employment Assurance Scheme (EAS) have been fully integrated with SGRY. The objective of the scheme is to provide additional wage employment along with food security creation of durable community, social and economic assets and infrastructure development in the rural areas. The areas. The scheme envisages generation of 100 crore mandays of employment in a year. The cost of the programme is to be shared between the Centre and the State on a cost sharing ratio of 87.5 : 12.5 (including foodgrain component). During 2001-2002, 22 lakh tonnes of rice and 5.64 lakh tonnes of wheat were allocated under the scheme. In 2005-06, 82.18 crore person days of employment were generated uner the programme.

Pradhan Mantri Gramodaya Yojana: (PMGY)

This scheme was launched in 2000-2001 in all the States and the UTs in order to achieve the objective of sustainable human development at the village level. The PMGY envisages allocation of additional Central Assistance to the States and UTs for selected basic minimum sercices in order to focus on certain priority areas of the government. PMGY initially had five components, viz., primary Health, Primary Education, Rural Shelter, Rural Drinking Water and Nutrition. Rural Electrification has been added as an additional component from 2001-2002.

The allocation for PMGY in 2000-01 was Rs. 2,500 crores. This has been enhanced to Rs. 2,800 crores for 2001-02 and for the year 2002-03, a sum of Rs. 2,800 crore has been provided.

Pradhan Mantri Gram Sadak Yojana: (PMGSY)

This was launched on 25th December 2000. This is a programme providing road connectivity through good all-weather roads to 1.60 lakh unconnected habitation with a population of 500 persons or more in the rural areas by the en of the Tenth plan period (2007) at an estimated cast of Rs. 60,000 crores. The programme is being executed in all the states and six Union Terriories. The programme aims at connecting all Panchayat headquarters and places of tourists interest, irrespective of population size. Since inception, project proposals for Rs. 7,553.26 crore have been cleared. About 56,200 kms of rural roads have been taken up under the programme, benefiting about 37,225 habitations, Till December 2002, 10,882 road works have been completed providing connectivity to 12,508 habitations with an expenditure of Rs. 3,321.59 crore.

Mahathma Gandhi National Rural Employment Guarantee Act

In order to mitigate the severity of rural umemployment the National Rural employment Gurantee (NREG) Act was passed in September 2005 and it is being implemented since February 2, 2006 in 200 identified districts of the country with the objective of providing 100 days of guaranteed unskilled wage employment to each rural household opting for it. Till January 31, 2007, of the 1.50 crore households, who demanded employment, 1.47 crore households have been provided employment under the scheme. Upto January 31, 2007 a sum of Rs. 6,714.98 crore were released by the Government for NREGS as against Rs. 11,300 crore allocated in the Budget for 2006-07.

The data on the employment provided to the Rural Households which had demanded work under MNREGA in various years from Financial Year 2010-11 to 2012-13.

Total number of households which were provided employment in all the States and UTs of India (except Delhi NCT), put together, was 54474108, which was 97.62% of households who had demanded employment (*i.e.*, 55801571 households), during the Financial Year 2010-11 (P). Similarly, the total number of households which were provided employment was 50424472, which was 99.04% of households who had demanded employment (*i.e.*, 50911403 households).

Review Questions

Section - A

1. Define the term full employment.
2. What are the kinds of unemployment?
3. What is Disguised unemployment?
4. When was Bagawathi Committee appointed and for what purpose?
5. What is Indira Awas Yojana?
6. What is usual status unemployment?
7. Expand: TRYSEM

Section - B

1. Explain Cyclical and Structural unemployment.
2. Different between 'Voluntary' and 'Involuntary' unemployment.
3. What is the nature of employment in India?
4. Write about employment creation programme in Ninth Plan.
5. Write a note on Nehru Rozgar Yojana.
6. Write a note on JRY Evaluation.
7. What is Rural Employment Guarantee Act?

Section - C

1. What are the causes of unemployment in India?
2. Examine the magnitude of unemployment in India.
3. Suggest remedial measures to solve the massive unemployment problem in
4. What is Agro-Industrial Integration? How far will it help in solving unemployment?
5. What are the recommendations of Bagawathi Committee?
6. What are the salient findings and recommendations of Gupta's study grou
7. Make a brief discussion of the salient 'Employment generation Programm India.

Chapter 5

Human Resources & Population Problem

Human resources and its development for economic progress have been attracting the attention of modern economists and administrators. Though Adam Smith, Malthus and Ricardo were also interested in population problem, their approach was negative in nature. They created an alarm about the effects of population growth without properly visualising the beneficial effects of human resources in industrialization and capital formation in the economy. In Western European countries, population growth had helped the growth of economies, because they were wealthy, had abundant capital and there was scarcity of labour. In such a condition, the supply curve of labour would be elastic to the industrial sector so that even a high growth rate of population would lead to a rapid increase in productivity. In fact, every increase in population would lead to more than proportionate increase in the gross national product.

But, the conditions in backward economies are different. These economies are poor, capital-scarce and labour abundant. Population growth would be an obstacle to economic development.

Consequences of Population Growth in underdeveloped Countries

In underdeveloped countries, rapid population growth would increase the pressure of population on land, leading to mass unemployment and underemployment. The problem of feeding teeming millions of people would be a stupendous task. The basic requirements like drinking water, housing, health, sanitation and hygiene would not be adequately met. There would be problems of getting food, consumer goods, raw materials, capital equipment, etc. Public expenditure would be diverted to many welfare activities without creating any tangible assets. Finally, the balance of payments position would become extremely critical. The rapid growth of population would depress per capita income, lower the standard of living of the people and bring down the rate of capital formation. Let us discuss in detail the various consequences of rapid increase in population in underdeveloped countries.

1. Reduces per capita income: The growth of population, particularly in underdeveloped and developing countries, will retard the per capita income in many ways. It increases the pressure of population on land and reduces the productivity of land. Increase in population leads to rise in the costs of the

consumption goods, because of their supplies. Every increase in national income will be accompanied by an equal or even more of consumers. The number of children in a family will be large, consuming more of the resources of the economy without contributing anything towards productivity of the economy. In underdeveloped countries, the life expectancy will be very low and there will be large infant mortality. Consequently, the economy will be having only a few able bodied and healthy adults to produce and earn in the economy, while the number of dependants consuming without producing will be large. This will result in low per capita income. Any increase in national income will be nullified by the increase in population.

2. Poor Standard of Living: Since the per capita income determines the living standards of the people, poor per capita income will result in poor standard of living. The people will be caught in the vicious circle of poverty. The economic hardships encountered by the people would always drive them to seek and depend on traditional methods. In due course the people would resign to a stage of fatalism.

3. Lack of Agricultural Development: Increase in population would exert pressure only in rural areas, as many would seek to settle down working on land. The land-man ratio will become high. It adds to disguised and poor productivity will result in poor savings and investments. Capital formation in agriculture cannot take place and there will not be any agricultural development. Agriculture will be carried on at subsistence level, as a way of living without any improvement or modernization.

4. Mass Unemployment: A rapid increase in population will result in mass unemployment and underemployment in the economy. With the increase in labour force, it may not be possible to expand job opportunities, due to absence of complementary resources and effective 'Man-power planning'. The unemployment will not only be increasing year after year, but also the backlog of unemployment people will be a staggering figure in underdeveloped countries. For example, in India, the First Five-Year Plan started with a backlog of 3.3 million unemployed which rose to 5.3 million at the commencement of the second Five-Year Plan. The Fourth Five-Year Plan commenced with a backlog of 12 million unemployed. The remedy is not only increasing job opportunities in economy, but also reducing the population through appropriate controls.

5. Retards Capital Formation: Unplanned population growth retards capital formation. The per capita income will be very poor and consequently the people will be making hand-to-mouth existence. They will not have anything left by way of savings for investment. Domestic savings for capital formation will be very poor. The Government may have to divert its capital more on social overheads, rather than economically productive activities. The diversion of resource for social overheads such as schools, hospitals, roads, water supply, sanitation, etc., does not add to the national product directly and immediately. Consequently,

the growth rate of the economy will be at a low level. All these will keep the level of technology at a rudimentary stage. Poor and low technology will retard capital formation.

Thus, rapid increase in population will not have the same consequences in developed and underdeveloped countries. It will prove more harmful than good in underdeveloped countries.

POPULATION IN INDIA

India is a rich country with a poor people. Hence, any long term plan cannot afford to neglect the upliftment of our human standards. In its numerical strength, our population is unique. The languages, manners, customs, dresses, modes of living have made the country attractive from the stand point of human studies. Its racial variety, combining the peoples of Turko-Iranian; Aryan, Aryan-Dravidian, Mongoloid and Mungol-Dravidian, etc., has converted the country into a veritable melting pot. Its numerical strength of over 1027 million according to census of 2001 forms 16 per cent of the human race of the world inhabiting 2.4 per cent of the total land area of the world. But this enormity and variety, instead of being an asset, has most often proved to be a liability, a source of embarrassment, of political disintegration, social disharmony, religious fanatisim, communal hatred, and above all economic distress. Hence, the need for making special study of the population of India and the problems affecting the economic development of the country.

Size and Growth of population

The first regular census in India was taken in 1891. Thereafter, there have been regular census every 10 years. This is called *Decennial Census*. The 2001 census was the 6th census since independence.

CENSUS OF INDIA 2001 & 2011

The sixth Decennial Census of Independent India and first census in the New Millennium was undertaken in February 2001. This census covered the whole of India, i.e., 28 States, 7 Union Territories. 5.564 taluks, 640,000 villages and 5,161 towns and cities. It may be noted here that in 1991 the census enumeration could not take place in Jammu and Kashmir. In 2001, the census enumeration did take place in J & K, in spite of the threat from millitants. Another important aspect to be noted is that 2001 census data are available for the three newly formed States of Jharkhand, Chatisgarh and Uttarnchal. The data are adjusted for previous census years (1991, 1981 etc) in order to enable the user to study past trends.

Highlights of 2011 census

The total population of India, according to 2001 census stands at 1,027, 015, 247 (102.7 Crores) or 1027 million. This includes the population of Jammu and Kashmir. The Population of India as per the 2011 census was 1,210,569,573.

In the last decade (2001-2011), the population of India has increased by 183,554,326, an addition of about 17.87% to 2001 population.

In percentage terms, the decadal growth rate was 17.87 per cent compared to 21.3 per cent during the previous decade (1991-2001). This means that the rate at which Indian population has increased has declined during the last decade.

Bihar recorded the highest decadal growth rate, which in fact increased from 28.4 per cent to 25.4 per cent. This decline in growth rate of Bihar is in sync with India's population growth.

Andra Pradesh recorded the sharpest decline in the growth rate; 11 per cent during 2001-2011 compared to 13.9 per cent during 1991-2001, or a decline of 2.9 per cent points.

The lowest growth rate was recorded by Kerala (4.9 per cent) followed by Andhra Pradesh (11 per cent).

Uttar pradesh, even after the new State of Uttarchal was carved out in 2000, continues to be the most populous State in India with a population of 199 million (Uttaranchal population is 10 million). Thus, Uttar Pradesh has a population of 209 million in 2011.

Uttar Pradesh has 16.51 per cent of India's population, followed by Maharashtra (9.28 per cent) and Bihar 8.6 per cent.

Of the total population of India, according to 2011 census, males account 623,121,843 (51.47%) and females account 587,447,730 (48.53%). Thus, the sex ratio, *i.e.*, number of females for 1000 males has increased to 943 in this census, compared to 933 in 2001 census.

Density of population per sq. km has increased to 324 in this census compared to 267 in the previous census.

Increase in Literacy Rate in 2011 census (subhear).

Another important feature is the increase in literacy level in 2011 census. The level of literacy in this census has increased to 75.94 per cent, compared to 65.38 per cent in 2001 census. Of this, female literacy has gone up to 64.64 per cent from 54.16 per cent in the previous census.

The birth rate of the country per thousand, according to 2001 census is 21.8. The death rate stands at 7.1 per thousand. The Infant Mortality Rate was 42 in this census against 66 in 2001 census.

Expectation of life, according to 2011 census for the period 2006 – 10 is 65.8 years for males and 68.1 for females. The projection for 2016 – 2020 is 68.8 for males and 71.1 for females.

Population of Mega-Cities

According to 1991 census, there were only 23 large cities in India with a Population of more than one million accounting a total population of 70.7 million. The census of 2001 reveals that there are 35 large cities of megacities in India accounting for 107.9 million persons. The population of these 35 mega-cities constitutes 38 per cent of the total urban population. Greater ranks first with a population of 16.4 million (2001 census), accounting a decadal increase of more

than 30 per cent. Its population in 1991 census was 12.6 million. Next comes Kolkata with a population in 13.2 million showing an increase of more than 20 per cent as decadal growth of population from 10.9 million in 1991 census. Third comes Delhi showing an increase from 8.4 million in 1991 to 12.8 million in 2001 census, an abnormal increases of 52.4 per cent. Chennai (formerly Madras) has the distinction of fourth largest city in India with population of 6.4 million in 2001 recording an increase from 5.4 million in 1991, an increased of 18.5 per cent. Bangalore which had a population of 4.1 million in 1991 increased to 5.7 million in 2001 census, an abominable increase of 39 per cent. Next comes Hyderabad from 4.3 million to 5.5 million; Ahmedabad from 3.3 million to 4.5 million. Pune records an increase from 2.5 million to 3.7 million, an increase of 48 million persons in 1991 to 2.8 million in 2001. Kanpur has recorded an increase from 2.1 million to 2.7 million; Lucknow from 1.6 million to 2.2 million; Jaipur from 1.5 million to 2.3 million and Nagpur from 1.7 million to 2.1 million, an increase of 23.5 per cent.

Population of Mega Cities in 2011 census (subhear)

The status of these megacities changed as per the 2011 census. This is explained by the following table.

Rank	*Metropolitan Area*	*State/Territory*	*Population (2011)(3)(4)*	*Area (in km)*
1.	National capital Region Haryana	Delhi, Uttar, Pradesh	46,049,032	34,144
2.	Mumbai Metropolitan	Maharashtra	20,748,395	4,354.5
3.	Kolkata Metropolitan Area	West Bengal	14,617,882	1,851.41
4.	Chennai Metropolitan Area	Tamil Nadu	8,917,749	1,189
5.	Bangalore Metropolitan Area	Karnataka	8,728,906	8,005
6.	Hyderabad Metropolitan Area	Telangana	7,749,334	7,100
7.	Ahmedabad Metropolitan	Gujarat	6,352,254	1,294.65
8.	Andhra Pradesh Capital Region	Andhra Pradesh	5,800,000	8352.69
9.	Pune Metropolitan Area	Maharashtra	5,049,968	3,500
10.	Visakhapatnam Metropolitan	Andhra Pradesh	4,200,000	5573
11.	Jaipur Metropolitan Region	Rajasthan	3,073,350	623

The above table reveals that 11 metropolitan regions have registered a population of more than 30 lakhs in 2011 census. The status of these metropolitan cities indicate that a major migration of population from rural to urban is happening, as the birth rate is almost 21.06 which has declined compared to 2009 (22.5). Hence, the population in terms of migration should have caused such a scenario in metropolitan cities in 2011.

The Table 5.1 gives particulars of census figures of India from the Census Year 1901.

Table 5.1

Growth of Population in India 1901 to 2011

Census Year	Population in Million	Percentages increase or decrease
1901	236	-
1911	252	+5.75
1921	251	- 0.31
1931	279	+11.00
1941	319	+14.22
1951	361	+13.31
1961	435	+21.51
1971	547	+24.80
1981	683	+24.66
1991	843	+23.50
2001	1027	+21.30
2011	1210	+17.87

The Table 5.1 shows that the increase in population of India was rather slow upto 1921. It rose from 236 millions to 251 millions over two decades. But from 1931 to 1971, the population had increased at a galloping rate from 279 millions to 547 millions, an increase of 96 per cent. The year 1921 is called the year of the *'Great Divide'*, as the growth rate after this has been very sharp. In the decade 1951-61 alone, the increase had been 21.51 per cent and in 1961-71, it had increased to 24.80 per cent. With all the massive planning programmes in India during the decade 1971-81, the growth rate could be reduced only by 0.14 per cent, as during the decade, the percentage increased had contained with +24.66 as against +24.80 in the previous decade. As regards 2011 census, the net addition to population has shown a fall from +21.30 in 1991 - 2001 to +17.87 in the 2001-11.

Table 5.2

India : Size of Population and States (2011 Census)

States/UTs	No.of Persons	Percentage
Uttar Pradesh	199,812,341	16.51
Maharashtra	112,374,333	9.28
Bihar	104,099,452	8.60
West Bengal	91,276,115	7.54
Andhra Pradesh	84,580,777	6.99

Tamil Nadu	72,147,030	6.05
Madhya Pradesh	72,626,809	6.00
Rajasthan	68,548,437	5.66
Karnataka	61,095,297	5.05
Gujarat	60439692	4.99
Odisha	41974218	3.47
Kerala	66406061	2.76
Jharkhand	32,988,134	2.73
Assam	31,205,576	2.58
Punjab	2,77,43,338	229
Haryana	25,351,462	2.09
Himachal Pradesh	6,864,602	0.57
Uttaranchal	10,086,292	0.83
Jammu & Kashmir	12,541,302	1.04
NCT Delhi	16,787,941	1.39
Chattisgarh	25,545,198	2.11
Tripura	3,673,917	0.30
Manipur	2,570,390	0.21
Meghalaya	2,966,889	0.25
Nagaland	1,978,502	0.16
Goa	1,458,515	0.12
Arunchal Pradesh	1383727	0.11
Puducherry	1247953	0.10
Chandigarh	1,055,450	0.09
Mizoram	1097206	0.09
Sikkim	610,577	0.05
Andaman & Nicobar	380,581	0.03
Islands Dadra & Nagar Haveli	343709	0.03
Daman & Diu	243,247	0.02
Lakshadweep	64,473	0.01

Note: Number of States & UTs in 1991 : 32

Number of States & UTs in 2001 : 35

Total area remains the same at : 30, 65, 027 kms

INCREASE IN DENSITY OF STATES AND UNION TERRITORIES

States and UTs ranked according to increase in density between 2011-2011

Table 5.3

	Rank of States / UTs	*Density in 2001*	*Density in 2011*
1.	Delhi	9,294	11320
2.	Chandigarh UT	7,903	9528
3.	Daman & Diu UT	1,411	3291
4.	Pondicherry UT	2,029	2547
5.	Lakshadweep UT	1,894	2149
6.	Bihar	880	1106
7.	Dadra & Nagar Heveli UT	449	700
8.	Uttar Pradesh	689	829
9.	West Bengal	904	1028
10.	Haryana	477	573
11.	Punjab	482	551
12.	Kerala	819	860
13.	Jharkhand	338	414
14.	Maharastra	314	365
15.	Assam	340	398
16.	Tamil Nadu	478	555
17.	Nagaland	120	119
18.	Gujarat	258	308
19.	Goa	363	394
20.	Tripura	304	350
21.	Karnakata	275	319
22.	Madhaya Pradesh	196	236
23.	Rajasthan	165	200
24.	Orissa	236	270
25.	Andra Pradesh	275	308
26.	Uttranchal	159	129
27.	Manipur	107	115
28.	Meghalaya	103	132
29.	Chatisgarh	154	189
30.	Jummu & Kashmir	99	124
31.	Sikkim	76	86
32.	Himachal Pradesh	109	123
33.	Mizoram	42	52

34.	Andaman & Nicobar Islands UT	43	46	5.9
35.	Arunchal Pradesh	13	17	
	All India	324	382	

CAUSES FOR INTER-STATE DIFFERENCES IN DENSITIES

An analysis of Table 5.3 reveals that the density of population is very high in some States, whereas it is low in other regions. For instance, the union Territories have recorded a very high density of population, while it is comparatively less in States. Even among the States, some states have recorded a very high density of population than others. Since the size of population is increasing, it is inevitable that with given geographical area of the country, there should be an increase in the density of population. But, what are the causes for inter-state differences in densities. There are also differences in densities within the same regions. There are also differences in densities with in the same regions. When Tamilnadu has recorded a density of 478 persons per sq. km., in the census of 2001, pondicherry (Puducherry) has recorded a density of 4,011 persons. Puducharry lies in the same region of Tamilnadu. What is the reason for this difference in densities? Uttar pradesh and Punjab have recorded 689 and 482 persons respectively in densities of population. Rajasthan has recorded only 165 persons. Even among northern states, the variations in densities are very wide. In the southern states also the differences in densities are large; for instance kerala 819, while Tamilnadu 478 and Andra Pradesh 275. What are the causes for these wide variations in densities of population?

India is not only an agricultural country, but with differing climatic variations, fertility of the soil, geographical differences and irrigational facilities. Not all States have developed agriculturally and industrially. There are lot of regional disparities in economic development. When the soil is very productive with good irrigational facilities, the regions, record high densities of population. Rajasthan has sandy soil with little fertility and the irrigational facilities are poor. Hence, the density is low as against Punjab. Jammu and kashmir are in mountainous regions with aggressive climatic conditions, while Madhya Pradesh lies in rocky terrain. More productive regions with invigorating climate invite lot of population for concentration and this leads to higher density of population. On the contrary, hostile regions will have lesser number of people. Further, some States have made significant development in industrial field resulting in many industrial towns and trading centres. All these attract larger number of people. Besides some regions have become religious centres and also educational, cultural and historical places attracting lot of people from various parts of the country. All these factors result in differing densities of population.

It should be understood that though economic factors influence density of population, it is not an index of prosperity or poverty of the region or States.

Higher densities need not denote prosperity, nor lower densities poverty. U.S.A is very prosperous with a density of 22 persons; so also England and Japan with 229 and 221 persons respectively. Brazil and Australia have only 12 and 2 persons respectively; but they are not as developed as USA.

Thus there is no relationship between the density and economic progress of the country.

Sex Ratio and Literacy Level

Sex Ratio:

The sex ratio is defined as the number of females per thousand males in the population. Generally, the sex ratio has been adverse to females, *i.e.*, the number of females per thousand males has generally been less than thousand. The Table 5.4 indicates the sex ration in India from 1901 to 2011 census.

Table 5.4

Sex Ratio in India: 1901 to 2011

Census Year	*Sex Ratio*
1901 ...	972
1911 ...	964
1921 ...	955
1931 ...	950
1941 ...	945
1951 ...	946
1961 ...	941
1971 ...	930
1981 ...	934
1991 ...	929
2001 ...	933
2011 ...	942.7

Apart from the fact that the sex ratio has been constantly adverse to females so for, it will be noticed that the ratio has tended to deteriorate over the decades. For the first time in 1981 census, it would seem that the tendency for sex ratio to deteriorate had been halted from 930 to 934. But, again in 1991 census, the sex ratio had deteriorated from 934 to 929. However, it had shown signs of improvement in the census year of 2001 where in the sex ratio had increased from 929 to 933 femals and in 2011 it has improved to 942.7 females.

Kerala is the only state where women out-number men. In 1991 the sex ratio in Kerala stood at 1,040 for 1,000 males. The sex ratio had increased to 1,058 in 2,001 census and further to 1084.3 in 2011. In Pondicherry, the sex ratio is fairly equal, *i.e.*, 1,001 females for 1,000 males, but in 2011 it has gone up to 1037.4. The

sex ratio had been the lowest in the UT of Daman and Diu. It was 618.4 females for Rajasthan 928.2; Uttar Pradesh 912.4, etc.

The reason for the decline in sex ratio being unfavourable to women in most of the states, has been stated by the census document as follows: "A preference for male children resulting in neglect of female babies leads to poor health and mortality of female babies." "The adverse sex ratio is also due to lower expectation of life at birth for females in the past compared to males, part of which is due to high maternal mortality."

However, there has been a trend towards a slight rise in the sex-ratio in most of the states and UTs in India. The country must try to eliminate gender-inequality. *i.e.*, preference for sons and discrimination against females. One must not read too much into the small changes in the sex-ratio reported in a massive exercise of census in this country.

Literacy Level:

The calculation of literacy rate in India was modified in the 1991 census. It was worked out for population aged seven years and above. It has been assumed in the enumeration of literacy level, that children are not expected to begin their schooling below the age of seven. In China, the cut-off point is 12 years and above for estimating the literacy level and also semi-literates. On the basis of modified method, the literacy level in India crossed 50 per cent mark in literacy in the census of 1991. Actual literacy rate was recorded as 52.20 per cent. In 2001 census the literacy level increased to 64.8 per cent and in 2011, 74.04. The highest literacy rate exceeding 90 per cent has been Kerala, while the lowest literacy rate has been Bihar with 47 per cent in 2001 improved to 59.783. The literacy level of some of the states has been given below: (Census 2011).

Kerala	—	93.99 per cent
Mizoram	...	91.33 per cent
Lakshadweep	—	91.85 per cent
Goa	...	88.70 per cent
Pondicherry	...	85.85 per cent
Nicobar Islands	...	86.63 per cent
Chandigarh	...	86.05 per cent
Delhi	...	86.21 per cent

Besides above, Himachal pradesh, Daman Diu, Maharashtra have recorded literacy level more than 80 per cent in the 2011 census. These states and union Territories could be considered as highly literate regions of India.

Tamilnadu, Karnataka, Gujarat, West Bengal, Nagaland, Haryana, Uttaranchal, Punjab, Tripura, Manipur, Sikkim, etc., can be considered as above average, as their literacy level stands below 75 per cent, which is the average literacy level of the country. Other places should be considered as having low literacy level, as they have recorded below the average level of the country. The lowes

percentage of literacy level has been recorded in Bihar which accounts for only 61.795 per cent.

Literacy level of some of the States which have recorded less than 75 per cent, but more than the national average has been given below:

Tamilnadu	...	80.09 per cent
Karnataka	...	75.36 per cent
Gujarat	...	78.3.1 per cent
West Bengal	...	76.26 per cent
Nagaland	...	79.56 per cent
Haryana	...	75.56 per cent
Uttaranchal	...	78.82 per cent
Punjab	...	75.84 per cent
Tripura	...	87.22 per cent
Manipur	...	79.22 per cent
Sikkim	...	81.42 per cent

Literacy level of some of the States which have recorded lower than the national average has been given below:

Jammu & Kashmir	...	67.16 per cent
Rajasthan	...	66.11 per cent
Uttar Pradesh	...	67.66 per cent
Arunachal Pradesh	...	65.39 per cent
Jharkhand	...	66.41 per cent
Andhra Pradesh	...	67.02 per cent
Bihar	...	61.80 per cent

The literacy level in India has no doubt increased over the decades since 1901. In 1901 census the literacy level was less than 6 per cent; to be very precise, it was 5.92 per cent. Over decades the level increased and in the first census after independence, taken in the year 1951, the literacy percentage was just 16.67 per cent.

In the Planning period, since 1951, there had been phenomenal increase in the literacy level of the country. In 1961 census, the percentage of literacy of the country stood at 24.02. In 1971 census this level increased to 29.45 per cent. In the census of 1981 the literacy level reached 36.17 per cent. In 1991 census, the literacy level crossed the 50 per cent mark. The exact figure stood at 52.11 per cent. Nearly four decades of planning and literacy development in the country had increased the level of literacy from barely 16 per cent to 52 per cent. In 2001 census the level of literacy and increased to 64.8 per cent and in 2011 to 67.772.

Female Literacy:

It is interesting to note that till 1920s, female literacy was considerable below male literacy with a ratio of 1: 10 in favour of males. Thereafter there has been clear improvement in female literacy. But in 1971, for every 100 literate females, there were double the number of literate males. As per census, there has been some improvement in female literacy in 1991 showing that female literate population forms nearly two-thirds of male literate population. Table 5.5 gives particulars of percentage of literacy level among males and females during the census years of this country.

Table 5.5

Percentage of literacy according to Decennial Census 1901 to 2011

Year	*Percentage*	*Males*	*Females*
1901	5.35	9.83	0.60
1911	5.82	10.56	1.05
1921	7.16	12.21	1.81
1931	9.50	15.59	2.93
1941	16.10	24.90	7.30
1951	16.67	24.95	7.93
1961	24.02	34.44	12.95
1971	29.45	39.45	18.69
1981	36.17	46.74	24.88
1991	52.11	63.86	39.42
2001	64.8	75.3	53.7
2011	74.04	82.14	65.46

This data is very significant, as it tells that the scale of investments in educational programmes have not yielded tangible results and the progress in female literacy is very slow. There should be enhanced acitivity in adult literacy programme and also education of women. The investments should not be merely for formal schooling programmes alone.

AGE COMPOSITION AND LIFE EXPECTANCY

Information regarding the age composition, the size of labour force, birth and death rates and life expectancy are available. According to 2011 census, crude birth rate per 1000 persons stood at 21.6 and death rate at 7.0 per thousand persons.The birth rate at the commencement of this century stood at 25.0 per 1000 population and death rate at 8.1 per 1000 population (Census 2001).

The number of years for which people of a country expect to live at the time of birth is the average life expectancy of that country. It depends on the death rate and the age at the time of death. If the death rate is high or death occurs at an early age, the life expectancy of the people will be low. In the early years of 20th

century, the life expectancy of the people of India was deplorably low, as low as 25 years. It increased to 32 years in 1951, 41 years in 1961 and 59 years in 1991. The current level, *i.e.*, 2001 to 2006, it has been projected at 63.87 years for males, and 66.91 years for females. In 2011 it was 69.7 for males and 74.91 for females. This had been estimated on the basis of Sample Registration System (SRS).

When compared to countries like USA, Japan, Australia and England where the life expectancy exceeds 77 years, we are very backward.

According to Census Commissioner (2001) there is a positive relationship between population growth rate and the child population in the age group 0-6. In India, the population of children and their proportion in the age group 0-6 declined from 17.94 per cent in 1991 to 15.42 per cent in 2001. A fall in the proportion of children in the age group of 0-6 is indicative of a fall in fertility. In Kerala, Tamilnadu, Andra Pradesh, Karanataka and Gujarat, the percentage of population in the age, group 0-6 is below the national average, while in States like Haryana, Meghalaya, Rajasthan, Uttar Pradesh, Bihar, Jharkand and Madhya Pradesh, it is much higher than the national average.

From the census data, we come to know about the composition of the labour-force of the country. This means those who are within the age of 15 to 59 years. The 2011 Census reported 62.5% of the total population in this age group. The age group 0-14 years is classified as 'children" and this segment constitutes 40 per cent of the population. According to Prof. Sanburg, a population with 40 per cent children indicates a fast-rising population. This is also indicative of unproductive consumers. A population with only 20 per cent children shows a declining trend in population, while 30 per cent children indicates stable population. If we consider the age group 0 – 14 years, then the percentage of population was 29.5 in 2011 census.

TOTAL FERTILITY RATE (TFR)

What do you mean by Total fertility Rate? It indicates the number of children that would be born to a woman, if she were to be alive till the end of her child-bearing years and bear children at each age, in according with prevailing countries of the world. For instance, Ivory Coast is considered to be having the highest TFR in the world. It is around 7. The lowest TFR will be Hongkong with a figure of 1.21. In China the TFR is considered to be 5.9 and India 2.4 (2011 Census). In Europe it is 2.89 and North America 1.59. The TFR figures would help a lot in demographic analysis and also in deciding population control programme and implementation of family planning projects.

The TFR in India in 1951 was estimated at 6.0 According to sample Registration system (SRS), TFR for the year 1981 was estimated at 4.5. In the year 1991 it had come down to 3.6 and in the commencement of this century, TFR had dipped to the level of 3.2. The Government aims at reducing the TFR by fixing the target at 2.1 called the standard TFR. This standard TFR of 2.1 brings the meassage that the standard norm should be only 2 children and displayed the slogan "We Two; Ours Two" for the married couple.

However, not all states could achieve the TFR standard 2.1; in some of the States and UTs accounting for 11 per cent of country's population, TFR 2.1 was achieved. Some states are making strenous efforts to achieve the target 2.1 who are in the range of 2.4 to 2.8. Some states contributing nearly 35.6 per cent of the population could not achieve the standard target of 2.1

States & UTs which *achieved the TFR target* are: Kerala, Tamilnadu, Delhi, Goa, Nagaland, Andaman and Nicobar Island, Chandigarh and Pondicherry.

States and UTs which are *striving to achieve the target* are: Andhra Pradesh, Karnataka, Maharashtra, Orissa, Punjab, West Bengal, Himachal Pradesh, Arunachal Pradesh, Manipur, Sikkim, Daman and Diu and Lakshadweep. The TFR in these regions ranges between 2.4 to 2.8.

States which are *far away from the target* are: Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh. The TFR rates of these states are 4.5, 3.9, 4.2 and 4.7 respectively. These account for 35.6 per cent of the population of the country.

OCCUPATIONAL CLASSIFICATION OF POPULATION

According to census 2001, 58.4 per cent of the total workers in the country are engaged as cultivators and agricultural labourers and this has gone down to 54.6 in 2011. About 4 per cent of them are working in household industries which has gone down marginally to 3.8 in 2011., while 37.52 per cent are employed in other industries and this has gone up to 41.6 in 2011. Incidentally, out of these 37.25 per cent, a larger portion are engaged in agriculture related industries. Thus they are indirectly related in the agricultural sector itself. This scenario in 2001 remained almost the same in 2011 also.

Table 5.6 indicates the economic activity and category of workers in 2011.

Table 5.6

Economic Activity and Category of Workers (2011)

Category 2001 Census	Rural	Urban	Total
1. Total Population:	68.8	31.2	100.0
2. Total Workers:	70.5	87.6	75.2
3. Marginal Workers:	29.5	12.4	24.8
4. Main Workers:	22.92	8.38	31.30
(a) Cultivators	33.00	2.8	24.6
(b) Agricultural Labourers:	39.3	5.5	30.0
(c) Household Industry Workers	3.4	4.80	3.80
(d) Other Worker:	24.3	86.9	41.6

At the individual level, the dependence on agriculture is very high in some States. For example, in Bihar, nearly 78 per cent of the total workers are engaged directly in agriculture. 30 per cent of them are cultivators, and 48 per cent are landless agricultural labourers. In Chattisgarh, 45 per cent of the total workers are

cultivators, while while 32 per cent are working as agricultural labourers. In Madhya Pradesh the numbers as cultivators and agricultural labourers are 42 per cent and 28 per cent respectively. Highest percentage of workers engaged as cultivators is in Himachal Pradesh recording 65.56 per cent; while the lowest percentage has been recorded in Kerala in which it is barely 7.19 per cent. Regarding agricultural labours, the highest percentage is in Bihar (48 per cent) and the lowest percentage is recorded in Arunachal Pradesh 3.94 per cent.

Kerala, Punjab, West Bengal and Tamilnadu have succeeded largely in diverting its workforce to non-agricultural activities. According to 2001 census, only 23.36 per cent of Kerala's total workers are engaged in agriculture. In punjab it is 39.36 per cent. In west Bengal it is 43.94 per cent and in Tamilnadu the percentage engaged in agriculture has been recorded as 49.55 per cent, *i.e.* almost 50 per cent. However, in 2011 the above situation has marginally changed.

THEORY OF DEMORGRAPHIC TRANSITION

An analysis of figures relating to growth of population in India reveals that the population in the country has increased to fantastic level during the course of 20th century. Though the level of population was more or less static till 1921 (the year of 'Great Divide), it increased in leaps and bounds afterwards, and the growth after independence is rather phenomenal. From 361 million in 1951, the population of India has gone upto 1027 million in just 50 years causing population explosion. What are the causes for this enormous growth of population during the second half of 20th century?

Demographers state that India is now passing through the *Second Stage of Demographic Transition*, and as such, it is bound to have enormous growth of population. Demographic transition tells about the relationship between the birthrate and the death-rate of the country and the consequent net increase of decrease in population. Further, the demographers indicate the role of economic development in increasing the population or decreasing it, due to variations in the birth-rate and death-rate of the people in different stages of economic development. Let us study about the theory of demographic transition in detail to know the causes for variations in population during the different stages of economic development.

First Stage: According to demographic theory, in first stage, the economy would be at the primitive and agrarian level when were would be high death-rate and also high birth-rate. High death-rate, during this stage, would be due poor diet, prevalence of many types of diseases in an epidemic form, absence of medical help, poor progress in sciences and lack of scientific cure for diseases and also the attitude of the people. In such a stage of society, though there would be high birth-rate, the population would be controlled by high death rate. Hence, in the first stage of demography, the population would be more or less static, as more births would be followed by more deaths. This was the condition in India till 1921, the year of 'Great Divide'.

Second Stage: In the second of demographic transition, there would be high *birth-rate, but lesser death-rate*. Due to economic development, spread of education and scientific knowledge, many diseases would be controlled or cured. Developments in the field of science, surgery and medicines would result in controlling of curing the diseases; consequently, the death-rate will get reduced. We know that the introduction of Penicillin, Mycin and Sulfa drugs and other life-saving medicines and also fantastic advancement in surgery, like open-heart surgery and also transplanting of kidneys etc., have enabled the diseases to be fought effectively and efficiently and death-rate has been reduced and controlled in our country. Birth-rate remaining at the same level, and reduction in death-rate, cause rapid increase in population, leading to population explosion. India is now passing through this stage of demographic transition. We have effectively reduced the death-rate; but not birth-rate.

Third Stage: Only in the third stage of demographic transition, the birth-rate will also be reduced due to industrialization, urbanization, awareness of family planning programmes, wise parenthood, extended economic roles for women outside their homes, and the consciousness of small family norms and higher standard of life, etc. Thus, in the third stage, the birth and death rates will become small. Advanced countries of the world are in the third stage of demographic transition. The pertinent question is how long will it take for a country to move from second stage to third stage of demographic transition, so that it may not the time depends on so many factors. It depends on the initial birth-rate, the rate of economic progress, the types of education, social-change, cultural and religious attitude of the people and policies of the government. This time factor will very from country to country. In western countries, it took nearly 30 to 40 years for maintaining more or less an equilibrium between birth-rate and death-rate.

It is evident that India has crossed the first and it is now in the second stage of Demographic transition with higher birth-rates and lower death-rates and hence India is over-populated.

In the first decade of 20th century (1901-1910), the annual birth-rate of India was 49.2 per 1000 of population and annual death-rate was 42.6 per 1,000, leading to natural increase of 6.6 per thousand. In the seventh decade of 20th century (1971-80), the annual birth-rate was 37.2 per thousand and death-rate 15.0 contributing to an increase of 22.2 per thousand. During the period 1981 to 1991, the annual birth-rate was 29.0 per thousand and death-rate 10.0 leading to an increase of 19.0. In the closing decade of 20th century, i.e., from 1991 to 2000, the birth rate declined to 25.8 per thousand, and death rate 8.5 per thousand leading to an overall increase of 17.3.

In all years, the rural birth rate was higher than the urban birth rate. So also, rural death rate was higher than the urban death rate. This is due to the fact that urban areas command more medical facilities.

POPULATION PROBLEM IN INDIA

The population and economic development are closely related, as the latter depends on the former. Abnormal size and increase in population lead to the problem of food scarcity and equitable supply of food to the millions. It reduces the growth of national income and per capita income retarding the economic growth of the nation. Rising populaion leads to various types of unemployment problems and the burden of unproductive consumers has to be borne in the economy. The problem of increasing births demands higher expenditure by the Government for medical care, education, housing, clothing etc. All these factors urge the necessity of reducing the birth rate in India. A large population by itself may not be a big problem for the economy to tackle, provided the number is maintained at the same level for a fairly long period. But the problem is aggravated and worsened by the rate at which the population increases every year–an alarming increase of 10 million every year. In India, a baby is born every 1.5 seconds, causing a baby boom and demanding an extra supply of 12.80 million quintals of food every year, 25 lakhs of houses, 200 million meters of cloth, 1.2 lakhs schools and 3 lakhs of teachers.

Hence, the population of India presents the following problems:

(i) The population in our country is very large;

(ii) The rate of increase of population is very high;

(iii) Even the existing population could not maintain a decent minimum standard of living and they are in abject poverty;

(iv) Efforts of planning and developments are completely nullified by the in creasing population; and

(v) How to control the increasing number and cater to the needs of the existing number?

In this connection there had been a controversy whether India is over populated or not. It had been contended that India is a vast country with plenty of natural resources which could have been properly exploited. It was argued that if all the reasources were fully utilized, India could maintain even a larger population in better comfort. In other words, it was believed that the population of India had not exceeded the optimum limit, and the failure of the government to properly utilize the resources had been covered by the over-population stigma. It is unnecessary to discuss this, as the population had reached and exceeded the optimum level. Applying Malthusian test, India is over populated. The race between food and population in the 20th century had been badly lost by food. Concrete illustrations may be cited. During 15 years of planning from 1951-65, the output of foodgrains increased by 55 per cent. During the same period, the population increased by only 33 per cent. In spite of this, an annual import of 30 lakh tons of foodgrains were made. But the price of foodgtains recorded an increase owing to rise in demand for food arising from high income elasticity of demand for food. Clearly, we could not restore a balance between population and

food in the country, and population has exceeded its limit. Further, the increase in population led to the increases in the percentage of cultivated to cultivable area. Now, forests, pastures and drier regions have all been brought under the plough. Increase in sub-division and fragmentation of holdings, increase in the number of landless labourers, etc., are clear indications of phenomenal increase in the population over the country's resources.

Remedial Measures

Many methods suggested for solving the population problems are:

(1) Migration: (2) Redistribution; (3) Economic development; and (4) Family planning through effective population policy.

1. Migration

This solution has only historical importance and in the present day, this cannot be prescribed as an effective method. Many European countries solved the problem of over-population in the middle ages and after, through migration to foreign countries like U.S.A., Canada and South America. There was even migration from India to Ceylon, Burma and the East Indies in those days. But nowadays the high cost of transportation, difficulties of language and customs, and the stringent immigration laws, growing naional feeling etc., prevent Indians from moving to foreign lands and permanently settling down there.

2. Redistribution

Redistribution of population between thickly and thinly-populated regions of India is also suggested as one of the measures to tackle the population problem in a humble way. The distribution does not offer a direct solution because the total number will remain the same. But this may create economic and sociological changes which may have some influence on the population. The density of population in India according to 2001 census has been estimated at 324 persons per sq. km; but the density varies from State to State. Kerala, West Bengal, Bihar, Madhya Pradesh, Rajasthan, Assam, Gujarat, Orissa, Karnataka, Maharashtra and Andhra Pradesh have low densities of population. Poor economic development and urbanization in these States have contributed to low density. The effort in the Fourth Five-year plan of develop the backward districts is the right step to halt the regional imbalance and also to create an atmosphere for mobility of population to these areas. This would create employment opportunities for many, and the potentialities of undeveloped regions might be fully exploited, leading to a better standard of living. Better life, spread of education, urbanization, etc., would go a long way to check the rising population. In this connection, it should not be misunderstood that high density of population is a sign of economic progress. Density of population indicates only man-land ratio. The high density of population in kolkata, Mumbai and other important cities is not an indication of high standard of life in these cities. Economic development may lead to higher density of population, but the converse in not true. Better standard of life depends on how the resources are

utilized through industrialization and modern technology. The density of population of Japan is more than double the density of population in India. Through industrialization and technology, Japan is able to maintain a higher standard of living. In the case of U.S.A., the higher standard of living is mainly due to favourable man-land ratio and the higher stage of economic development achieved.

3. Economic Development

The only best method of solving our over-population problem is rapid economic development. Illiteracy, ignorance, old customs, beliefs and poverty are the obstacles in effectively solving the problems. The poor should be made to realize that their poverty is removable and they can enjoy a better standard of life by hard work. Women's education goes a long way to reduce the problem. A minimum national standard should be assured to all through economic progress. Food, clothing, housing, employment and education have a direct bearing on the size of the families. In Europe, it was found that a rise in the standard of living was accompanied by a fall in the birth-rate.

4. Population policy and Family Planning

Population policy may be defined as a policy formulated and implemented by the government with the principal object of reducing the rate of growth of population through reduction in the rate of fertility. This can be achieved by (i) moral, (ii) legal, (iii) contraceptual; and (iv) clinical methods.

(i) Moral: Family planning or limited families is achieved through limiting the number of births in each family by moral restraint, postponement of marriage, raising the age of marriage and celibacy. This voluntary method called 'Brahmacharya' is advocated as the best method from ancient days. Mahatma Gandhi, Catholic institutions, and enlightened people have blessed this method; but in modern days, this cannot be advocated as a population policy of the Government, because of the endogenous factors which cannot be operated from without. The endogenous factors are social attitudes towards women and families which are closely related to the social behaviour of the individual. Further, this voluntary moral restraint cannot be practised by common men. Hence, the exogenous factors have to be operated to limit the families.

(ii) Legal: The Government, in order to reduce the period of fertility and to check the rising population, has taken up many statutory measures, viz. prohibiting child marriage, increasing the age of marriage of 18 in the case of girls and to 21 in the case of boys. The Government of India has legalized "abortions" to reduce the number of births, if family planning methods adopted by the couple failed.

(iii) Contraceptual Methods: The Government has been making efforts to spread the message of family planning and the knowledge of contraceptive methods. All availability media of advertisement have been widely used to educate the masses in creating limited family consciousness. Supply of

contraceptives and oral drugs to rural areas has been taken up through family planning centres.

(iv) Clinical Methods: Clinical methods prevent births on a permenent basis, while the previous ones avoid the occurrence of pregnancies. Sterilization can be effected either on male of female b surgical operations. In order to encourage people to take up to sterilization, many sterilization camps have been organized in the rural areas incentives are given to persons who successfully take upto family planning.

To sum up, population planning is easier said than done. It cannot be achieved without transforming the attitude of the people. In a country where there is mass illiteracy, poverty and superstition, it is really a stupendous task to bring home to the minds of the people the messages "Children by choice and not by chance".

POPULATION POLICY OF INDIA (1976)

The Government of India announced its Population policy on April 16, 1976, with a view to tackle effectively the population explosion in the country and also to formulate uniform measures and norms in all States of the country. The salient features of population policy are as follows:

1. Raising the minimum age of marriage by three years i.e., from 15 years to 18 years for girls, and from 18 years to 21 years for boys.
2. There will be no central legislation for compulsory sterilization and it is left to the States to have their own legislation if they feel necessary.
3. The limitation will be only after three children which will be uniformly appli cable to all Indian citizens without distinction of caste, creed or community.
4. Representation for States in the Lok Sabha will be linked to the population of 1971 census and reduction in population of the States will not result in reduction of the number of seats in the Parliament. This will be for another 25 years to come. This means that the representation of the people in the parliament would be frozen on the basis of the 1971 census till A.D. 2001.
5. Similarly, plan assistance to State will be linked to the 1971 population level for the next 25 years.
6. Increase in monetary compensation for sterilization and group incentives are among the measures announced by the Central Government.

Let us discuss in detail the package of measures contemplated under National population policy, of 1976.

Raising the Minimum Age of Marriage

It was pointed out that the population of India had crossed 600th million mark on 1 January 1976, and it is now raising at the rate of well over one million per month. We know that population had reached one billion by January 1, 2000 A.D.

Hence, the first step envisaged in the 'package' was raising the minimum age of marriage for boys and girls.

Under the existing Child Marriage Restraint Act (popularly known as Sharda Act) minimum age of marriage had been fixed at 15 for girls and 18 for boys. This act was amended and the age of marriage raised to 18 for girls and 21 for boys. Further, offences under this law would be made cognisable by an officer not below the rank of a Sub-Divisional Magistrate to ensure its effective implementation. The question of making registration of marriages compulsory was being considered.

The policy of raising the minimum age of marriage would not only have a demonstrable demographic impact, but would also lead to responsible parenthood and help to safeguard the health of the mother and child.

Linking Representation in the Lok Sabha on 1971 population

The linking of Central assistance to the 1971 population level had been proposed to provide incentives for State Governments to effectively implement family planning programmes. Under the existing formula, 60 per cent of plan assistance was being given on this basis of population, and for this purpose the population figures of 1971 would be taken into account for the next 25 years. The balance of 40 per cent was given on four heads and thereafter a fifth head would be included. Eight per cent of Central assistance would be specifically earmarked against performance in family planning.

The linking of the representation in the Lok Sabha, and of central assistance to the States to the population of 1971 was long overdue, as some States had been persistently dragging their feet in implementing the family planning programmes, while the others that were making excellent progress were expressing fears that their very efficiency might place them at a disadvantage.

Increase in Monetary Compensation for sterilization and group incentives

The monetary compensation for sterilization would be raised under the new policy to Rs. 150 per head if performed with two living children or less, Rs. 100 per head if performed with three living children and Rs. 70 per head if performed with four or more children. This would include the money payable to individual acceptors, as well as others charges like drugs, dressing, etc. This would be effective from May 1, 1976.

In addition to individual compensation, group incentives were proposed to make family planning a mass movement. These incentives would be introduced for the medical profession, for Zilla and Panchayat Samitis, for teachers at various levels, for Co-operative societies and for labour in the organised sector.

To secure greater involvement of voluntary agencies in the programme, it was proposed to allow full rebate in income-tax assessment for amounts given as donations, for family planning to Government local bodies or any registered voluntary organisation approved for this purpose.

The policy also sought to make necessary changes in the service and conduct rule of Central Government employees to make them adopt the small

family norm. All the ministries and departments of the Government at the Centre and in the States would be required to take up, as an integral part of their normal programme, the motivation of citizens to adopt responsible reproductive behaviour.

Under the population policy, special measures would be taken up to raise the levels of female education, as it had been noticed that wherever female literacy improved, fertility dropped almost automatically. Similarly, high priority would be given to child nutrition, as high infant mortality and morbidity had a direct impact on fertility.

The package of measures contained in the policy was expected to achieve the targeted reduction in 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. Allowing for steady decline in death rate, the policy was expected to bring down the growth rate of population from the present level of 2 per cent to 1.4 per cent by 1984, according to the population policy, 1976.

The National Health Policy: 1983

The National Health Policy approved by Parliament in 1983 was committed to achieving the goals of Health for all the people by the year 2000 AD and a 'Net Reproduction Rate of Unity by the Year 2000 AD'.

In specific terms, these goals were to be attained by achieving the following targets by 2000 AD:

(i) Birth Rate: 21 per thousand *(ii) Death Rate:* 9 per thousand *(iii) Infant morality rate:* Below 60 per thousand live births. *(iv) Effective Couple Protection Rate:* 60 per cent *(v) Life expectancy at Birth:* 64 years.

NATIONAL POPULATION POLICY 2000

The Government of India adopted the new National population policy on 15th February 2000 with a view to encourage the two-child norm and to stabilise the population by 2046 AD. The salient features of the new Population Policy of 2000 are as follows:

At the outset, the government decided that the freeze on Lok Sabha seats imposed as per the 42nd Constitutional Amendment with 1971 census as the basis for deciding the number of seats which is valid up to 2001 is being extended till 2026. This is being done to protect the interest of State which have followed the small family norms effectively and also to prevent the States from getting more Lok Sabha seats by not adopting small family norms effectively.

The national Population policy listed the following measures to achieve a stable population by 2046.

1. Reduction of infant mortality rate below 30 per 1000 live births,
2. Reduction of maternal mortality rate below 100 per 1,00,000 live births.
3. Universal immunisation.
4. To achieve 80 per cent deliveries in regular dispensaries, hospitals and medical institutions with trained staff.

5. Access to information, containing AIDS, prevention and control of communicable diseases.
6. Incentive to adopt two-child small family norm.
7. Facilities for safe abortions to be increased.
8. Strict enforcement of Child Marriages Restraint Act and Pre-Natal Diagnostic Techniques Act.
9. Raising the age of marriage of girls preferably to 20 years or more.
10. A special reward for women who marry after 21 and opt for a terminal method of contraception after the second child.
11. Health insurance cover for those below the poverty line who undergo sterilisation after having two children.
12. The appointment of a National Commission on population to be headed by the Prime Minister to monitor the implementation of population policy. This is being done to impress upon the nation the urgency of paying attention to the problems of control of population. Since India has already crossed the mark of one billion, the effort of the National Population Policy is to limit to 1,100 million by the year 2010 by intensifying family planning measures.

The Government hopes to achieve the objective of population stabilisation by 2064 A.D. Critics, however, feel that the new population policy puts the *entire* burden of family limitation on "Women". The policy has been very *soft* on the male participation. The policy motivates only women to accept terminal methods of contraception after the second child. It would have been fair, had the policy also provided similar incentives for "men" for sterilisation after the second child.

FAMILY PLANNING PROGRAMME AND PROGRESS IN INDIA

In an over-populated country like India, the importance of family planning programmes need not be over-emphasised as an instrument of social transformation and a tool of economic planning. Over-population of the country has resulted in the widespread prevalence of corruption, immorality and many social evils, leading to a miserable fall in human values and moral standards. On economic grounds too, family planning programme is more imperative and compelling. According to Spengler, a country requires and investment of 4 per cent of its national income to maintain the existing standard of living, if it allows its population to increase by one per cent per annum. So, in our country, where the population increases at the rate of 2.5 per cent per annum, we have to invest 10 per cent of our national income even to maintain the present poor standard of living. All our economic planning would fall flat to a miserable failure, if economic planning is not well co-ordinated with population planning. M.C. Chagla was right in saying that "our progress would be like writing on sand with the waves of population growth washing away all that we have written".

What is Family Planning?

By family planning, we mean planned parenthood, which is nothing but conscious limitation of children or spacing of children within economic limits of the family, so as to create happier homes, through healthier children and better parents. Matrimonial life has got an onerous responsibility of having children only by choice and not by chance, and begetting children, who cannot be supported properly by the parents, is a social crime.

Family planning, as an official programme, was adopted in India in 1952. In the first two plans (1951 to 1961), the stress was mainly on research in the field of motivation, communication, demography, physiology of reproduction and on the extension of central and state organisations in providing clinical services. There was, therefore, not much progress in the adoption of family planning.

The Government realized the seriousness of the problem only after the publication of the 1961 census, which showed a higher growth rate than was anticipated. A full-fledged Department of Family Planning was created in 1966 in the Ministry of Health, Family Planning and Urban Development. In 1966-67, the programme was made time-bound and target-oriented. In the Fourth Plan, the programme was treated on the 'highest priority' basis with an outlay of Rs. 315 crores.

Aims and targets: The programme aimed at reducing the annual birth rate from about 30 per thousand at the start of the Fourth Plan to 30 by the end of the Fifth Plan, and 25 by 1983-84. The operational goals aimed at adopting family planning by the people as a way of life through group acceptance of a small family norm, personal knowledge of family planning method and ready availability of supplies and services. For its success, the programme attempted to cover about 4 crore couples in the reproductive age-group, to motive them to adopt family planning.

Implementation: The programme is implemented by the State Government with the full financial assistance of the Centre. The Central Family Planning Council advises on family-planning at the national level. A number of central committees, like the Research co-ordination Committee, have been set to study the progress of the research programmes. Voluntary organisations and private medical practitioners are also drafted for service to make full use of the available resources.

Financial Outlay in Plans for Family Planning

The Government was alive to the problem of over-population in the country right from the first Five-year Plan onwards and Family-Planning Programmes were made an integral part of Five-Year Plans of the country. However, the attempt and expenditure during the first three plans were very modest and the approach was mainly clinical in nature by those who sought after knowledge relating to family-limitations of their own accord. From Fourth plan onwards the

Family Planning programmes received greater emphasis and attention and also outlay of finance. Now, it has become a multi-dimensional policy which includes not only birth-control, but also child care, pre-natal care and post-natal care and welfare of mothers, etc. The programme now gives services relating to health, nutrition, education and also motivating the eligible couples by means of dissemination of knowledge and also extending incentives. The programme has introduced very valuable, though inadequate, infrastructure in the form of F.P. Centres in cities and villages with necessary equipment, facilities and personal counselling, besides training and research.

In the Fourth Five-Year Plan, a sum of Rs. 315 crores was spent for F.P. programmes. In the Fifth Five-Year Plan, the total expenditure was Rs. 425.36 crores which exceeded the original allocation of funds. The Sixth Five-Year Plan had spent a sum of Rs. 1010 crores in total; allocating Rs. 687 crores for Services and supplies; 8.80 crores for Training; 11.50 crores for Research and Evaluation; 32 crores for Mass Media and Education; 250.30 crores for Maternity and child health; 19.50 crores for Organization; and Rs. 0.20. Crores for Indian Population Project (*IPP*). The Seventh Plan allocated a sum of Rs. 3256 crores with a target of protecting 42 per cent of eligible couples. In the Eighth Plan, emphasis had been given for restricting the population by bringing down the birth-rate from 29.0 per thousand persons to 26.0 per thousand by 1997. A Sum of Rs. 6,500 crores for family welfare and population control during this plan had been allotted, which was just 1.5 per cent of the total resources of the plan.

The Ninth Plan made a provision of 15,120 crores of rupees for family planning and welfare. This amount was 1.8 per cent of the total plan outlay. The Tenth Plan has made a provision of Rs. 27,125 crores, *i.e.*, 1.7 per cent of the total plan outlay for family welfare. The Tenth Plan has targeted to reduce crude birth rate from the level 25.8 per thousand in 2000 to 21 by the year 2007. For this goal to be achieved, the total fertility rate will be brought down from the current level of 3.2 to 2.3 by 2007. Infant mortality rate will be reduced from the current level of 68 to 45 by 2007. Tenth plan hopes to restrict the growth of population between 2001-2011 to 16.2 per cent. In other words, this implies that by 2011, population of India will be around 1,193 million. The Registrar General of India projects India's population in 2016 at 1,264 million.

The massive expenditure on family planning cannot be considered as waste, though the achievements were very meagre. In almost all Planning periods, the targets could not be achieved. The main failure was in meeting the target in respect of couples protected by family planning. The age of marriage continues to be low, perhaps lower than what is legally prescribed. The reduction of birth-rate targets could not be achieved. The population control as a movement has not reached every nook and corner of the country. Public enthusiasm is very much lacking and community participation is rather poor. However, the programme has created some awareness in some States and in urban areas.

CAUSES OF FAILURE OF POPULATION CONTROL POLICY AND DRAWBACKS OF FAMILY PLANNING PROGRAMME

India was the first country in the world to have a government-level programme of family planning and population control. In spite of massive expenditure and also continuous effort to control the population, through family welfare and planning measures, the impact is very minimal and they have touched only the periphery of the problem. What are the causes for the failures?

1. The family Planning programme suffers from serious defect of poor management. The amount spent has never reached even 2 per cent of the total development outlay. India is a vast country with different cultures and beliefs. The FP measures cannot be considered as merely a medical activity. It is a social and national activity.
2. There is lack of consensus of goals to be achieved. The cultural gaps between rural and urban people cause a great impediment at the field-level implementation of the programme, particularly in rural areas. Population control is a literacy-ferility nexus programme. There is deplorable dearth of leadership in rural areas and we can as well say that there is leadership vacuum at the social level.
3. In our country, the majority of people live in rural areas and most of them are ignorant and illiterate to understand the full dimension of this alarming population problem. Most of the people in rural areas consider this as a government activity and also a medical activity. Poor leadership at the village level and lack of multi-disciplinary approach hinder the progress.
4. Politicians and political leaders of our country are least bothered about the population problem and effective control of the same. On the other hand, their field-level activity of creating 'Vote-Bank' runs counter to the population policy of the country.
5. As there is no proper leadership for this programme, the feed-back of the problems met with at the field-level is rather much lacking.
6. Democracy and Secularism in our country are much maligned concepts in the hands of self-centred and power-seeking politicians. Hence, no problem is viewed at the national perspective and everything is viewed with religious and communal bias. Hence, the concepts of control of population, small-family norms and better economic benefits, etc., do not percolate, nor allowed to percolate the so called minority communities in the country. In democracy, any group can capture power by sheer numbers and this happens to be the motive of politicians. Their social and legislative activities are mostly confined to the vivisection of the society, rather than unification of the society. These activities run counter to the population policy.
7. Most of the Indian households are very poor and they cannot adopt family planning measures as a continuous process. Poor rural families would al

ways think in terms of children who would help them in their farm and rural activities to augment the income of the families.

8. The problem has great relationship with women education. A part from general education, instructions relating to maternal and child care and family planning should be imparted as an integral part of the curriculum; besides adult female-literacy campaign. This effort has not been made in a bigger way, and in an effective manner.

9. Further, there is inadequacy of population research in our country. There is no mechanism to transmit the results of research to the policy-markers and legislators. There are many unanswered questions in the field of population control and family planning; (a) Why is it the marriage age of females does not rise, inspite of increase in female literacy? (b) Why married women do not avail the many facilities for acquiring literacy? (c) Why do many eligible couples in rural areas fail to avail the FP facilities extended to them? (d) What sort of inducement will make the majority of eligible couples adopt small-family norms? (e) Many social and economic benefits are extended to poorer sections of the society – Have they resulted in adopting small-family norms or otherwise? (f) Is not allowing polygamy in some sections of the society act against the population control policy of the nation? etc. Genuine reformers and politicians and research organizations should find out answers by means of effective research for these problems.

SUGGESTIONS FOR EFFECTIVE IMPLEMENTATION OF FAMILY PLANNING PROGRAMME

1. Higher incentives should be considered to couples who maintain the number of children at the stipulated level, and maternity benefits to females to whichever religion of community they may belong should be completely stopped, if the number of children is not maintained at the stipulated level.
2. Age of marriage for men and women should be considerably raised and beyond this age, bachelors and spinsters should be given incentives to enthuse further postponement of marriage.
3. The programme should be effectively carried out in minority communities too, who generally do not prefer family limitation for obvious reasons. In this connection, enforcing uniform civil code, Bigamy Act for all Indian citizens and altogether prohibiting any type of ruse, political or religious towards increasing the number of people in the family must be strictly observed.
4. Effective mass education, particularly for women in rural areas, should be attempted. Compulsion should be avoided. Pursuation and legislative measurers alone would prove effective.
5. Economic upliftment is the ultimate answer for all family planning problems.

Review Questions

Section - A

1. When was the first regular Census taken in India?
2. When was the last Census taken for the present Century?
3. What was the population of India according to the first Census of this century?
4. What was the redeeming feature of 2011 Census?
5. Which year has been called the "Year of the Great Divide"? Why it is called like that?
6. What is the density of population of India according to latest Census figures?
7. What were the decadal growth rate of population in Tamilnadu, Kerala, Karnataka and Andhra Pradesh according to the latest Census figures?
8. What is the population of Tamilnadu according to 2011 census?
9. What is the density of population of Tamilnadu in 2011 census?

Section - B

1. What is meant by Density of population? What are the causes for inter-state differences in densities?
2. What is the exact population problem in India?
3. Why is India over-populated?
4. What are the measures undertaken to solve population problem in India?
5. What is meant by Family Planning programme?
6. What is your suggestion to reduce the population of India?
7. Make a brief assessment of financial outlay in the family planning programme.
8. Make a brief note on the literacy level in India
9. What are the finding of literacy level in India in 2011 census?

Section - C

1. Analyse the consequences of rapid increase in population in underdeveloped countries.
2. Analyse the size and growth of population of India after independence.
3. What is meant by Demographic Transition? Explain and analyse this with reference to India.
4. Discuss about the population policy of India.
5. What are the causes for the failure of Family Planning Programme in India? What suggestions do you offer for better implementation of FP programmes.

Chapter 26

Agricultural Marketing and Warehousing

What is Marketing?

The word *'market'* is not altogether easy to define, largely because it is used in many senses. The word is derived from the Latin word, 'mercari', which means 'to trade'. It came to signify a public place in which goods and services are bought and sold. It is the act or technique of buying and selling. This had led to the very old saying that two women and a goose may constitute a market. Then there is a Stock Market where millions of dollars worth of stock may be sold in a minute, with men listening in from San Francisco to London and changing their bids every second or two. The infinite variety of marketing, involving anywhere from two people to thousands, one dollar or a hundred million, is what makes a market hard to define and describe.

The term 'marketing' has numerous common meanings. To the housewife, it is shopping for food. To the farmers, it stands for the sale of his produce. To the wholesale businessman, it is the scientific method of advertising and sales promotion. To the industrialists of the country, it is the discovery of foreign outlets for goods manufactured. These are only different phases of marketing.

For those who are concerned with agriculture, "Marketing is the performance of all business activities involved in the flow of goods and services form the point of initial agricultural production until they are in the hands of the ultimate consumer". The study of agricultural marketing includes the study of all agencies involved in the movement of farm-produce from the farms to the final consumers and "the effects of such operations on farmers, middlemen and consumers".

Concepts and Features of Agricultural Marketing in India

Just like industrial commodities, so also agricultural commodities find their market. Fundamentally, there is no difference between agricultural business and non-farm business, but some of the peculiarities and characteristics of the former make it different from the latter. Any business indicates production and marketing for profit. In India, 'agriculture' was of a subsistence type and a way of life, rather than, business. Even now, with the advent of the 'Green Revolution' and production for a market, Indian agriculture continues to be of a subsistence-type. But in advanced foreign economies 'agricultural business' has become

sophisticated to equate with modern non-farm business. There, 'agriculture' has become an 'industry' and all the principles and concepts adopted in industrial business are equally adopted in agricultural production and marketing. Production techniques, input-output operations, harvesting, transporting, marketing and integration with the allied institutions and organisations are done on a scientific basis with technological and economic bias. The operational unit will be kept economical and the entire agricultural produce is considered as 'Produce for marketing' like in industries and the farmer will draw his requirements only through the marketing system. But, in our country, only the surplus production comes to market. Not all the surpluses come to the market. Out of the total production, the farmer of India retains a portion of the produce for his family consumption for the entire year, a portion will be set apart as seed for the next sowing season. As barter system still prevails in many villages in India, a portion of the produce will be exchanged within the village on barter basis. Hence, the actual quantity of marketed surplus will be very negligible and only the big farmers will have sizeable surpluses to offer in the marketing system.

Secondly, in India, agriculture has not reached the status of a business or industry and as such, we do not feel the need for professionals in managing this business. The more efficient a business is managed, the more will be the returns. Since, it is a way of life rather than business in our country, economic viability, profitability, managerial ability, etc., are relegated to the background.

Features of Markets for Agricultural Commodities

There are certain specific features of markets for agricultural commodities.

1. Bulk in nature and low in value : Almost all agricultural produce are bulk in nature involving transport problem. The per unit transport cost of these commodities will be very high as the value of these bulky commodities will be very low.

2. Seasonal character of supply : Since agricultural production is seasonal, soon after harvesting, there will be a glut in the market and some items there may be poor supplies due to poor yield.

3. Price fluctuation : This is the foremost and the worst feature of markets for agricultural produce. A bumper harvest will lead to heavy arrivals in the market which would depress the price. A crop failure would result in steep rise in prices. In the case of perishables and in the absence of scientific storage facilities, price fluctuations of the produce will be very violent.

4. Large volume of trading : Unlike industrial production, agricultural production is not confined to a particular region or locality. Production will be throughout the country and there will be hectric marketing activities in every part of the country. Since production is carried on by millions of small and marginal farmers, agricultural marketing will be buzzing with activity.

Due to the aforesaid features, agricultural marketing in India is beset with many defects. Let us study the main defects.

Main defects of Agricultural Marketing in India

1. Lack of Organisation among Cultivators : The Indian Agriculturists have not yet fully realised the importance of combined action for the purpose of bargaining on equal terms with buyers of agricultural produce, who have an organisation of their own. This is so because, the Indian farmers are small cultivators scattered all over the country having very little time and knowledge to look to the marketing side of their business, while purchases are large scale operators on an organised basis. "The farmer, in general, sells his produce at an unfavourable place and at an unfavourable time, and usually gets very unfavourable terms". So in such circumstances, it is common to find that the agricultural producers as a class are being exploited by the purchasers. But this point is loosing ground. Indian farmers have realised the important of combined action for the purpose of bargaining better prices for their produce. In the year 1980, the country witnessed the combined action of farmers in the form of agitation, to press their demands.

2. Forced Sales : The Indian farmer is forced to sell his produce immediately after the harvest, and that too in his own village because of the prior indebtedness of the producer and also the poor transport facilities to the nearest market town and the heavy cost of transport. A farmer who has to borrow heavily for growing a crop often mortgages it in advance so that the sale of the produce after the harvest becomes a mere formality. In addition to these, there is a regular post-harvest depression in the price of all agricultural commodities. Hence, most of the farmers are compelled by circumstances to sell their produce at the threshing floor (*i.e.*, the most unfavourable place), just after the harvest (*i.e.*, at the most unfavourable time), to the village money-lender-cum-trader (*i.e.*, to the purchaser who offers the most unfavourable terms).

3. Long Chain of Middlemen : The system of marketing in India is saddled with a long chain of middlemen. There are various agencies that stand between the cultivator and the ultimate consumer. The middlemen take away the lion's share of the price paid by the consumer, and consequently, the producer-farmer gets a poor share of the price. According to Syana, out the consumer's money spent on different commodities, the middlemen's share amounts to as given in Table 26.1.

This shows that a large part of the consumer's rupee goes towards the remuneration of intermediary agencies between the consumer and the producer. The need is to eliminate the functionless middlemen.

Table 26.1

Middlemen's share in Marketing

Crop	*Middlemen's share in percentage*
Grapes	73.60
Potatoes	57.72
Tobacco	43.18
Eggs	37.50
Rice	32.20
Wheat	31.50

4. Unregulated Markets and Multiplicity of Market Charges : The farmer who sells his produce in the market, cannot get the whole price settled because various deductions are made out of the sale proceeds by the trader. As the Mandis and unregulated markets are not subjected to any statutory control, the farmers have to pay various market charges, long established by customer. The following is an account of the unwanted charges deducted in the unregulated markets; taxes and tolls; commission; brokerage; handling charges; weighment charges; charges for other services; charity, quality allowances; weight allowance temple charges; sample; a quantity put upon for weighing the rest; village school and milk for buyer's children.

A great part of these cumulative charges has to be borne by the producer-farmer. "The great objection to the mareki charges lies not only in their multiplicity but also in the fact that they are not clearly defined and specified". To make things worse, many unwanted persons take market charges in kind. The chowkidar, the sweeper, the water man and a horde of beggars of every description, all regarding themselves as entitled to a share of the farmer's produce

5. Malpractices in the Market: Further, in the unregulated markets malpractices are common as most of them do not have committees to control their activities. When disputes arise, there is no effective machinery to decide them in an impartial manner. Naturally, the innocent farmers are invariably exploited by middlemen by their malpractices such as manipulation of weights and measurements, taking away samples without payment, negotiating the sales price under the cover of cloth, and speaking in dubious languages and notations. "Some of the practices prevailing in the mareki amount to nothing less than common theft". So, it is no wonder that the ryots prefer to sell in the village itself to the money-lenders or to the itinerant buyer for whatever price they can get rather than face this appalling array of exploiters in the unregulated market.

6. Absence of Grading and Standardisation : A good system of agricultural marketing should ensure an adequate premium for superior over inferior produce and clean over dirty produce. But in our country, till very recently no attempt was

made to grade produce before it is offered for sale. Since 1963, grading of agricultural and livestock produce, both for internal and export trade, is carried out under the provisions of the Agricultural Produce (Grading and Marketing) Act of 1937. The Commodities for export are compulsorily graded under the Sea Customs Act, 1962 because of the multiplicity of trade names and descriptions. But grading for internal consumption is being carried out on a voluntary basis only for ghee, vegetables, oils, butter, cotton, eggs, wheat flour, rice, potatoes, gur, arecanuts, fruits, honey, pulses, spices, chillies, coriander and curry powders. To provide laboratory facilities, a central AGMARK Laboratory at Nagpur and 22 regional laboratories are functioning.

Another important factor is the necessity that all trade contracts are done only on the basis of Government prescribed quality grades. But this is not done. "Most of the contracts are done on the basis of trade names and not on the Government fixed grades. Therefore, control has not been able to reduce complaints of quality which became difficult to settle in the event of dispute".

7. Defective Preparation for Marketing and Adulteration : The farmer in India pays little attention to preparing his produce for the market. He does not care even to clean the crops before it is brought to the market, with the result that the produce has to be cleaned and re-cleaned at every stage. In addition to this, freight is paid not only for transporting the produce but also for transporting dirt and foreign matter. "The amount lost in paying freight on direct and in extra cleaning alone amounts to at least Rs. 3 lakhs per annum in the areas serving the Calcutta market alone". Even worse than defective preparation for marketing is the deliberate practice of adulteration. In commodities such as groundnut, cotton and tamarind, damping is often resorted to, in order to increase their weight. Superior rice is adulterated with inferior rice, new rice is passed off as old rice and clay balls are mixed with groundnuts. "It is a sad commentary on our marketing methods that many people firmly believe, dirt and dishonesty to be a paying proposition. It is still more unfortunate that, as maters stand at present, so many of these people are right".

8. Absence of Marketing Intelligence : An important requisite of a good system of agricultural marketing is the supply to the producers of accurate information regarding the present and possible future trend of prices in different markets. Conditions at present are unsatisfactory. The producer has to depend mostly on hearsay and the reports furnished by the trader-cum-money-lender who would rarely give correct information. Market quotations furnished in the newspapers are not within the reach of the farmers as they are uneducated. The quotations given through broadcasts by All-India Radio are hardly intelligible.

9. Absence of Storage Facilities : Facilities available for storing the foodgrains and commercial crops are far from satisfactory. In most of the villages, the ryots store their produce in pits and receptacles. Large losses in agricultural produces

are incurred each year by dampness and damages by vermin, white ants, rats and rodents. The loss is due to insufficient and defective storage facilities. It has been estimated that nearly 40,000 tons of rice are destroyed by rats annually.

10. Lack of Transport Facilities : India is a land of vast distances with more than 5 lakhs of villages which are not properly linked by transport with urban areas. Transport is generally the most expensive item in marketing costs. India stands last in the world with road-mileage of only 0.25 mile per square mile of territory and 12 miles per lakh of population.

11. Lack of Financial Facilities : Last but not the least, inadequate credit facility to the farmer is the root cause of all the defects in the agricultural marketing system in India where the poor peasants are under the firm grip of the money-lenders.

THE REGULATED MARKETS

Most of the defects and malpractices in the market against the interest of the producer-seller can be removed, and are being removed, by the exercise of proper control over the markets. The Royal Commission on Agriculture, as early as 1928, recommended the establishment of *Regulated Markets* to put an end to these evil practices. Even before this, a lead was given by Berar in 1897 itself. Many provinces passed the necessary legislations on the recommendations of the Royal Commission on Agriculture. In Madras, Regulated Markets were established in 1933 itself by passing the *Commercial Crops Market Act*, which was later on repealed and in 1959, *The Madras Agricultural Produce Market Act* was passed, and many Regulated Markets were established under this Act. Almost all the States at present have marketing regulations and established Regulated Markets. The Directorate of Marketing and Inspection renders the necessary guidance and assistance to States in framing marketing legislations and its enforcement.

Functions of Regulated Markets

The Regulated Markets are administered by a Market Committee consisting of representatives of the producers, traders, local bodies, cooperatives and the Government; in short, it represents the interest of all. The Committee fixes market charges and commission rates. It prevents unauthorised deductions. It ensures correct weights and measures with licensed weighmen. The market committee is responsible for licensing of brokers, Commission agents and also weighmen. In case of disputes, the Market Committee attempts to settle the issue by means of arbitration. For this purpose, the Committee will have a sub-committee, for hearing disputes and making arbitration. The Market Committee has the powers to punish the offenders. Besides, the farmer-producer is given all sorts of facilities in the regulated market to dispose his produce at a fair price. This can be done either by Open Action system, or Closed Bid Tender System.

If the farmer is not satisfied with the price made in the bid, he is at liberty to desist from selling. He can keep the commodities in the godowns maintained by the regulated markets for a nominal charge, and again display his commodity on the next day for bidding. Most of the markets have storage facilities, give market information and also advise on improved agricultural practices. The producer-farmers are given maximum opportunities and scope for getting fair price for their agricultural commodities.

Progress of Regulated Markets

Before the commencement of the First Five-year Plan, only 286 markets were regulated in India. At the end of the First Plan, 470 markets were regulated. The Second Plan witnessed the rapid progress in the regulation of markets and at the end of the Plan period, there were 715 regulated markets. At the end of the Third Plan, the figure reached 1012. At the beginning of the Eighth Plan, 6,217 markets had been regulated in India out of 6,632 wholesale assembling markets. By the end of March 1995, the number of regulated markets stood at 6836. By the end of March 2005, the number of regulated markets were 7521.

Since 1988, an integrated scheme for the development of regulated markets is in operation. Under this integrated scheme, regulated markets are entitled to get Central Assistance. For this purpose, the markets are classified into Primary Rural Markets and Secondary Markets. The amount of central assistance depends on the market arrivals of agricultural commodities in the markets. Further, the Eighth Plan aims at making regulated marketing system as an instrument of rural regeneration by creating effective 'rural infrastructure'. For achieving this, the Eighth Plan provides the following :

(i) Rapid expansion of Regulated markets undertaken with a comprehensive planning of linking the whole marketing system with primary markets of the rural centres.

(ii) Linkage will be established with major consuming centres so as to give effective scope for expansion of primary centres.

(iii) More facilities of disseminating knowledge relating to market prices and also grading the commodities, so as to make the producer-farmer quality price conscious; and pricing can be easily monitored in relation to grades.

(iv) Development of regulated markets in command areas where commercial crops like cotton, tobacco, jute and other non-traditional crops are produced and marketed in the local weekly markets.

(v) Utilising the Regulated markets by the local Panchayat administration for effective generation of 'funds' by levying market charges and surcharges. Thus, the regulated markets are expected to become the fulcrum of farmers' productive activities.

Grading and Standardisation

The Government recognised the importance of "grading and standardisation" while passing the Agricultural Produce (Grading and Marketing) Act in 1937. Initially grading was introduced for hemp and tobacco. The First Five Year Plan recommended compulsory grading for export of commodities like wool, lac, sheep and goat skin, tanned leather, cashewnuts, pepper, ginger and oilseeds. At present, the Directorate of Marketing and inspection enforces compulsory quality control before export for as many as 41 agricultural commodities.

In the Second Plan, grading was enforced not only for export items, but also for commodities intended for internal trade and the scheme started with the grading of *ghee* and *vegetable oils*.

With the setting up of the Central Quality Control Laboratory at Nagpur and eight regional laboratories, samples of important products are obtained from markets and their properties analysed. On this basis, grades are drawn up and authorised packers are issued AGMARK seals. (AGMARK is the abbreviation of Agricultural Marketing). Commodities graded under AGMARK for internal consumption include vegetable oils, cream, butter, egg, rice, wheat, atta, pulses, jaggery, honey, ground spices and cotton.

Standard Weights and measurement

To put an end to the practice of false weights and measures in unregulated markets, the Government passed the Standard Weights Acts as far back as in 1939 for the State Governments to model their legislations. The Central Government adopted the metric System of Measures in 1958 and an Act to this effect was passed in the Parliament. The metric system replaced all old systems of weights and measures and has introduced uniformity in this respect all over the country.

CO-OPERATIVE MARKETING

A good system of marketing should ensure the farmer a proper return for his labour to enable him to stay in his occupation and also to assure the consumer that he pays no more than the fair price for the produce he buys. The agricultural producer in most of the underdeveloped countries is generally a poor man. To fight his poverty, two things are necessary. He just either improve his output both qualitatively and quantitatively or he must be enabled to get a large share of the final price paid by the consumer. This situation can be obtained only if the farmers sell their produce collectively through their own marketing co-operatives, instead of selling individually in the private markets. Marketing co-operative is the best form of marketing organisation. But in India, co-operative marketing societies have not developed on the desired lines.

According to the Rural Credit Survey Committee, "out of the 75 districts surveyed, in only 5 did the produce sold through co-operatives exceed one per cent of the total sales to all. Moreover, if the cultivators want credit before or after the harvest, the co-operatives are of little help or no help to them in most areas"

Hence, the Rural Credit Survey Committee recommended the linkage of credit with marketing of agricultural produce. Under this scheme, loans were to be advanced by the village societies from the sale proceeds of the farmer's produce. It was visualised that this scheme would facilitate credit recovery to a great extent and put the co-operatives on a sound footing. But it has been observed that this scheme has not worked as successfully as was expected.

Advantages of Co-operate Marketing Societies

(i) A marketing society ensures better bargaining power than the individual farmers because it substitutes collective bargaining in the place of Individual bargaining.

(ii) Sales through marketing societies ensure reduced marketing cost and in the case of individual farmers the marketing cost will be very high.

(iii) Marketing societies can control the flow of supplies and thus influence the price as they are strong whereas the farmers are weak.

(iv) Marketing societies eliminate middlemen completely by establishing direct contact with the buyers and thereby ensure profit margin.

(v) Marketing societies can have storage facilities and remove the damage to the agricultural crops and also effect orderly marketing by preventing glut in the market, especially in the post-harvest season.

Progress of Cooperative Marketing in India

The Cooperative marketing structure in India is of two types. In the first type, there is a two-tier system with Primary Marketing Societies at the base and the State Society at the apex. In the second type, it is a three-tier system with Primary Societies at the village level, Central Marketing Societies at the District level, and the State Marketing Societies at the apex. On the basis of the recommendations made by the All India Rural Credit Survey Report, the task of developing cooperative marketing was initiated in the Second Five-year Plan and extended in the Third Plan.

By 1990-91, the network of marketing co-operatives extended almost in every *mundi* in the country. At present, there are over 6000 primary marketing societies, of which 3,500 are special commodity marketing societies. At the district level, there are 160 central marketing societies covering nearly all the important mundis in the country. At the State level, there are 29 general purpose State level Co-operative Marketing Federations and 16 Special Commodity Marketing Federations and, at the all-India level, there are the National Cooperative Development Corporation (NCDC), the National Agricultural Cooperative Marketing Federations (NAFED), National Cooperative Tobacco Growers Federation Ltd, the National Consumers' Cooperative Federation and the Tribal Cooperative Marketing Development Federation of India. All these are working in the field of agricultural marketing.

Besides, there are now over 2,500 agricultural processing societies in the co-operative sector and 220 co-operative Sugar Mills which have exhibited great efficiency in sugar recovery and capacity utilisation and also installation of distilleries, paper mills and chemical units. All these factories provide several socio-economic services to the surrounding rural community besides providing employment in the rural sector.

Scope for Improvement

Theoretically, there are lot of advantages in marketing through co-operatives. But in India, these advantages have not been fully realised. As in other fields of co-operation, the gains of co-operative marketing societies have accrued mostly to rich and big farmers. The benefits of co-operative marketing have not percolated to the sections for which they were originally intended, e.g., small and marginal farmers.

A study taken up in the co-operative societies of Ludhiana district in 1971 by Gurkipal Singh revealed many short-comings in the working of the Societies.

1. Most of the societies had constructed their own stores using the loans taken from the State Marketing Federation, but their capacity was not adequate. Only a few provided warehousing facilities to their clients. Thus, the societies provided little pledge money to the cultivators and therefore the warehousing of produce was carried out on a limited scale.
2. None of the marketing societies undertook the processing of the agricultural produce. If processing is taken up, the returns to the producer will be greater. The cotton can be ginned and pressed, oilseeds can be crushed and sold.
3. It was found that managers of the marketing societies seldom offered bids in the open auction, when they felt that the private traders were offering lower prices to their clients than the price at the Commission Agents' shop. Thus, they did not make efforts to provide a maximum price to their clients. The marketing societies lagged far behind the private agencies while catering to the needs of the cultivators.
4. The study revealed that only 16 per cent of the cultivators patronized exclusively the co-operative marketing societies and 8 per cent patronized them only partly, whereas 76 per cent of the farmers patronized non-co-operative agencies exclusively and 8 per cent patronized the non-co-operatives partly. The reasons assigned by the cultivators in preferring non-co-operative agencies over co-operatives are something revealing. Table 26.2 gives the reasons attributed by the farmers selling through non-co-operative marketing channels and for not patronizing co-operative marketing. The situation has not changed much, even today, though the data in the Table is old by 36 years.

Table 26.2

Percentage Distribution of Selected Farmers Selling through Non-cooperative Marketing Channels and reasons for not Patronizing Co-operative Marketing Societies for the Disposal of their Produce

Reasons	*Percentage of Farmers patronizing Non-co-operative Channels*	
	Exclusively	*Partly*
Discourtesy of the Officials of marketing Societies	61	—
Lack of quality Service at marketing society	82	—
Preferential treatment by staff to a selected few	23	—
Lack of storage facilities	18	—
Unavailability of supplies on credit	78	50
Delay in carrying out sale transaction	23	—
Price differential	74	50
Prior debt obligations to other agencies	21	25
Old relations with commission agents	62	50
Dissatisfaction with co-operative credit	33	—
Availability of additional credit from commission agents	25	50
Lack of credit facilities with societies	43	75
Lack of hospitality of marketing societies	87	75

(*Source* : YOJANA, September 5, 1971, p.21)

The analysis given in the Table shows that concrete steps should be taken to strengthen the co-operative marketing organisations. These steps should be taken upon the following lines.

1. Efficient management is the indispensable factor in co-operative marketing societies because marketing is a technical, complicated and varied activity requiring special skill and experience. If loss is sustained due to inefficiency, the confidence reposed by the patrons will be completely shaken.

2. The marketing societies should be financially sound with sufficient capital and member. The area of operation of the society should be expanded to cover many villages.
3. The societies should have enough storage and warehousing facilities.
4. Processing of agricultural produce should be taken by the marketing societies.

WAREHOUSING IN INDIA

The importance of developing storage or warehousing facilities in India has been recognised for a long time. But the facilities available are inadequate and the methods of storing vary from place to place. In most of the villages, ryots store their produce in pits and receptacle known as '*Kuduru*', '*Kallis*' or '*Thekkas*'. In the up country markets, produce is stored in '*Kothas*' (generally a room in Arhatiya's shop) and 'Khaltis' (viz., pits in the ground lined with mud and straw) and in a few places in "pucca khalti" made of concrete. In Tamil Nadu, *pattarais* are used which are domestications with twisted paddy straw and in Malabar elaborate wooden boxes called 'dhanyappa kottulu' are used. Fruits and potatoes are generally kept spread in godowns and commercial crops, like cotton or groundnut are heaped loose in godowns or bagged in gunnies.

Almost all the marketing surveys have shown that the technique of storage has received hitherto no attention in India. The All India Rural Credit Survey Committee in its report not only stressed the importance of warehousing in India but also outlined even the organisational framework for initiating a country-wide programme of warehousing development.

The Government of India accepted the recommendations of the Committee and enacted the necessary legislation to set up the National Co-operative Development and Warehousing Board in 1956 and the Central Warehousing Corporation in 1957. This was followed by the setting up of State Warehousing Corporation in all States.

The Central Warehousing Corporation sets up warehouses only at centres of all India importance in connection with export and import trade. State Warehousing Corporations establish warehouses in all centres of regional importance. To avoid unfair competition with the godowns of the Co-operative Marketing Societies, the State Warehousing Corporations do not open warehouses at any place below the sub-divisional level.

Utilisation of Warehouses

Warehouses have two definite advantages. They provide better, scientific storage facilities at reasonable cost. They provide farmers and traders with a convenient instrument of credit in the form of warehouse receipt which they can use to borrow funds from banks. Both the advantages are significant, but the second one depends on the first. The bankers are willing to advance loans to traders and producers on the basis of securities. The existence of licensed warehouses will lead to the creation of documentation of title to goods. Hence,

efforts have been made to develop warehousing facilities rapidly for purposes of storage and also to popularize warehouse receipts as instruments of credit. Apart from these facilities arising out of increased provision and utilisation of warehouses, this is important from the point of implementation of price policies of the Government. But owing to difficulties in the acquisition of sites, shortage of construction materials, delay in the drawing up of specifications, etc., there was a shortfall in the construction of warehouses.

Storage capacity during the Plan periods

The three main agencies in the public sector engaged in building large scale warehousing facilities are the Food Corporation of India (FCI), Central Warehousing Corporation (CWC) and State Warehousing Corporations (SWCs). FCI is the principal agency providing storage capacity for foodgrains. Besides constructing its own godowns, FCI hires storage capacity from other sources such as CWC, SWCs, State Governments and private parties. The progress of storage capacity created by various agencies during the Sixth Plan period is given in Table 26.3

Table 26.3

Storage capacity created during Sixth Plan

(Million Tonnes)

Agency	*Sixth Plan target*	*Achievement*
1. Food Corporation of India	3.56	2.48
2. Central Warehousing Corporation	1.45	1.11
3. State Warehousing Corporation	2.50	1.61
Total :	7.51	5.20

With the creation of 5.2 million tonnes of storage capacity during the Sixth Plan period, the total available cumulative storage capacity stood at 26.8 million tonnes by the end of March 31, 1985, through the above stated three agencies. Table 26.4 gives particulars of total available storage capacity under the three agencies are given.

Table 26.4

Available Storage capacity at the commencement of Seventh Plan

(Million Tonnes)

Agencies	*Storage Capacity*		
	Owned	*hired*	*Total*
1. Food Corporation of India	8.93	6.40	15.33
2. Central Warehousing Corporation	3.17	1.60	4.77
3. State Warehousing Corporations :	3.95	2.75	6.70
Total	16.05	10.75	26.80

Storage capacity created during the Seventh Plan is given in Table 26.5

Table 26.5

Additional Storage created in the Seventh Plan*

(Million Tonnes)

Agency	*Capacity created*
1. Food Corporation of India :	5.00
2. Central Warehousing Corporation :	2.00
3. State Warehousing Corporation :	3.00
Total	10.00

* *(Approximate)*

With the additional storage capacity created in the Seventh Plan, the total capacity under the three agencies come to 36.80 million tonnes. Besides, the co-operatives have storage capacities upto 3.5 million tonnes. Under 'Rural Godown Schemes' an additional capacity of 1.6 million tonnes have been achieved. Private sector under the A.R.D.C. assisted scheme have storage capacity upto one million tonnes. The aggregate total available storage capacity comes to 42.9 million tonnes. It should be noted that only 50 per cent of the total capacity of godowns of Central Warehousing Corporation and State Warehousing Corporation would be available for storing foodgrains and the remaining 50 per cent would be utilised for general warehousing. Hence, actual availability of storage will be around 29 million tonnes only, for storing foodgrains through all available agencies.

Warehousing Policy in the Tenth Five-Year Plan :

The Government of India, in its Tenth Five-Year Plan approved the policy relating to handling, storage and transportation of foodgrains. The following are the broad outlines of the warehousing policy of the Government of India.

(i) Every effort should be undertaken to reduce the loss arising out of storage, handling and transportation of foodgrains at the farm level.

(ii) The farmers should be encouraged to adopt scientific storage methods in storing their farm produce.

(iii) The Government should adopt modernisaton of the system of handling, storage and transportation of foodgrains procured by the Food Corporation of India.

(iv) The Government should harness all resources and efforts through public and private sector, including foreign companies to build and operate infrastructure for bulk handling, storage and transportation of foodgrains.

(v) To enforce the policy, various fiscal incentives will be made available to the farmers in the form of tax concessions, duty exemptions for items not manufactured in India should be adopted. This policy will be followed during the Tenth Plan.

Warehousing Facilities by the end of 2000

Cumulative storage facilities of foodgrains contributed by different agencies by the end of the year 2000 are furnished in the Table 26.6.

Table 26.6

Cumulative Storage capacity contributed by different Agencies by the end of 2000

(In Million Tonnes)

Agency	*Total Capacity*	*Percentage*
1. Food Corporation of India	15.04	21.4
2. Central Warehousing Corporation :	6.40	9.2
3. State Warehousing Corporation :	11.14	15.9
4. Cooperatives through NCDC :	13.74	19.6
5. Department of Rural Development :	2.13	3.0
6. Agencies through NABARD :	13.50	19.2
7. Other Agencies :	8.21	11.7
	70.16	100.0

(*Source* : Tenth Five Year Plan (2002-07)

From the Table 26.6, it is evident that the major contribution in warehousing facilities has been done by Food Corporation of India, catering more than one fifth, followed by Cooperatives and other agencies through NABARD. State Warehousing Corporation contributes nearly 20 per cent. Taking a macro view, there is no shortage of capacity of foodgrains storage; though there may be shortages at the local level, due to imbalance.

Fruits, vegetables and marine products have also got storage facilities and there are more than 3,800 cold storage facilities with an installed capacity of 13 million tonnes. National Agricultural Cooperative Marketing Federation (NAFED) has undertaken the task of providing storage capacity for onions to the extent of 4.5 lakh tonnes. In the Tenth Plan, provision has been made for the construction of storage capacity for plantation crops and also non-cereal crops.

Review Questions

Section - A

1. Define the term 'Marketing'.
2. Who is a Middleman?
3. What is meant by Market Intelligence?
4. What is a Regulated Market?
5. What is Agmark?

Section - B

1. What are the features of markets for agricultural commodities?
2. What do you mean by 'Forced Sales'?
3. Specify the advantages of Co-operative Marketing.
4. Mention about the warehousing policy indicated in the Tenth Plan.
5. Are Middlemen necessary in agro-marketing?

Section - C

1. What are the main defects of Agricultural Marketing in India?
2. What are the functions of Regulated Market?
3. Discuss about the facilities available in India for warehousing in foodgrains.
4. What are malpractices adopted in the unregulated markets?
5. Discuss about the progress of Cooperative marketing in India. Indicate the scope for improving the activities of cooperative marketing.

Limitations of the Principle of Least Cost Combination

(1) Firstly, the factors may not be perfectly divisible. In that case, effective substitutions may not be possible. For instance certain factors of production should be combined together only in fixed proportions. Examples: One driver for each taxi and one typist for each type-writer, etc.

(2) Secondly, it will be very difficult to calculate the marginal product of each factor.

(3) Thirdly, the producer has to decide not only the best proportion of factors, but also the best scale of production. Hence this least cost principle cannot perfectly be worked out in practice. The best way to find out the producer's equilibrium is with the help of equal product curve analysis which we have studied already under importance and uses of indifference curve analysis.

Concept of Diminishing Marginal Rate of Technical Substitution

Under Consumer's equilibrium and utility analysis we have studied the concept of marginal rate of substitution. Similarly in production, the concept of marginal rate of substitution is used to explain the position of equilibrium of the producer. As the producer comes down on the Iso-product curve, he substitutes more of x factor for y factor in order to maintain the same level of output. It indicates the rate of substitution at the margin without changing the level of output. The rate at which the marginal rate of technical substitution diminishes is a measure of the extent to which the factors can be substituted. If the rate is smaller, greater is the substitutability between the two factors. If the rate does not diminish, the two factors are perfect substitutes. This can be explained by an imaginary Table 14-3 of factor substitution.

TABLE 14 - 3

Factor Substitution Table

Combination	Factor A	Factor B	M R T S Of A for B
First	1	24	...
Second	2	16	1 : 8
Third	3	10	1 : 6
Fourth	4	6	1 : 4
Fifth	5	4	1 : 2
Sixth	6	3	1 : 1

There are two factors of production A and B. The producer combines them in many ways to produce the same level of output. He substitutes one factor for another. In the first combination, he procures 1 unit of A and 24 units of B factor. This combination produces a particular level of output. Now in the second combination, he substitutes one more of factor A in the place of 8 units of factor B, so as to have the combination 2 and 16 to produce the same output. Here the rate of substitution is 1 : 8. When he takes the third combination, the rate of substitution diminishes to 1 : 6. In the same manner, the marginal rate of technical substitution goes on diminishing from 1 : 8 to 1 : 1 as shown in the table. The marginal rate of substitution diminishes as more and more of A is substituted for factor B. As factor B gets reduced in units yielding place to A, the marginal productivity of B increases while the marginal productivity of A decreases and consequently the total output remains constant.

The Marginal rate of technical substitution is given by the slope of the equal product curve at its various points. The price ratio of the factors is given by the slope of the cost line. At the Equilibrium point, Marginal Rate of Technical Substitution of two factors A and B will be given by the formula as follows: $MRTS_{ab} = \frac{P_a}{P_b}$ Where P_a stands for the price of factor A and P_b stands for the price of factor B.

The Producer's behaviour in attaining equilibrium is exactly the same as that of the Consumer in attaining equilibrium.

INPUT - OUTPUT ANALYSIS

Wassily Leontiff of Harvard University has pioneered the statistical analysis of inputs and outputs of all industries in the economy. He has developed an input-output analysis for the entire economy, taking all industries together in an independent system of commodity flows. This has popularly come to be known as Leontiff's Input-Output Analysis. The analysis shows the inter-industry relationships.

For this analysis, Leontiff divided the economy into a number of convenient sectors producing for the economy. Each sector produces an output which may be purchased and consumed by the ultimate consumer, or the output may be used as an input in another sector. Or, the output of the sector may be exported. Thus, each producing sector creates an output which may be (i) directly consumed by the consumers; (ii) exported to foreign countries; or (iii) utilised in another industry. For example, the vegetables produced in the economy are demanded and consumed by the consumers of the economy. In this respect, it is *final output* in the economy. Similarly, the oilseeds produced in the economy are exported to foreign countries. In this respect, it is *final output* in the economy. The production of cotton is an *intermediary* output, as this will become the

input of cotton-textile industry producing cloth. The wheat produced by the agricultural sector will be used by the Bakery units. The coal produced in the economy will be purchased and used as input in steel industry, factories and railways, besides the households using it. Thus, in an economy, every sector produces an output which may be partly consumed directly, partly exported directly to foreign countries and partly used as an intermediary input to some other industry.

The Input-output analysis of Leontiff tries to establish inter-industry relationship by dividing the economy into various sectors. It coordinates everything in one simultaneous and integrated piece of analysis in which "everything determines everything else". This inter-industry analysis has been produced by means of an input-output table.

An imaginary 'Input-Output Table' given below will make us understand easily the concept of the analysis.

TABLE 14 : 4

Input Output Table

(In Rupees)

Producing Industry	Purchasing Industry				Total Output (GNP)
	Coal	Iron	Engineering	Households	
COAL	0	12	10	3	25
IRON	15	0	3	2	20
ENGINEERING	4	5	0	12	21
HOUSEHOLDS	6	3	8	0	17
Total Expenditure (GNP)	25	20	21	17	83

In the above Table, the Industries are listed as Producing Industry in rows. They are listed as consumers or purchasers in columns. The Table tells the amount produced by each industry and its supply to different industries and also the amount purchased by each industry from the other industries.

If we read across, we can see that Coal industry sells Rs. 12 worth of coal to Iron industry, Rs 10 to Engineering industry, and Rs. 3 to Households. If we read down, we can find that Coal industry purchases Rs. 15 worth of iron from iron industry; Rs. 4 from Engineering industry and Rs. 6 worth of labour from Households in order to produce Rs.25 worth of coal. Similarly, the Iron industry purchases from Coal industry Rs.12 worth of goods; from Engineering industry Rs.5 worth of goods and from Household Rs.3 worth of labour in order to produce Rs.20 worth of Iron. Thus, the total output of each industry is Rs.25 for coal,

Rs.20 for Iron, Rs.21 for Engineering and Rs.17 for Households. The GNP of this imaginary economy is Rs.83 contributed by four sectors. The total production is equal to the total expenditure or consumption.

From this Table, we can calculate the input-output ratios or coefficients which represent the amount of input required per rupee of output. The Input - Output coefficients for coal industry are: 15/25 in relation to Iron industry; 4/25 in relation to Engineering industry; and 6/25 in relation to Households (i.e., Labour). In other words, for every rupee of coal produced 60 Paise worth of steel is required; 16 paise worth of Engineering materials are required and 24 paise worth of labour is required.

The input-output coefficients of Iron industry are: 12/20 in relation to Coal; 5/20 in relation to Engineering and 3/20 in relation to labour. In order to produce one rupee worth of iron, the industry has to spend 60 paise on coal; 25 Paise on Engineering goods and 15 Paise on labour. In this way we can find out the input-output coefficients for different industries from the Table produced for the economy.

From these coefficients, we can determine the effects of output due to changes in consumer demand or changes in Technology. In our Table, the Household demands Rs.3 worth of coal and Rs.2 worth of Iron. Suppose, the households increase the demand to Rs.5 worth of coal and Rs.4 worth of Iron. This will increase the production of Coal and Iron and these industries will demand more of labour from Households. The effect in change in demand will lead to increase in production in some industries and decrease in production in some other industries. Consequently, we have to make use of simultaneous equations to determine the output resulting from this change. In our example, we have taken only four industries for convenience and illustration. But in reality, in the economy there may be hundreds of industries. When such industries are taken together for consideration, the net result can be worked out only with the help of a computer.

Usefulness of Input-Output Analysis

The Input-Output Analysis is a very useful tool to the economists, particularly those who are in charge of evaluating the working of the economy in different sectors. The usefulness of the analysis can be summarised as follows:

(a) It helps to evaluate the effects of a change on the working of the National economy of a country. In order to find out the effect of a particular change in the economic system, the study of the mutual inter-dependence of the various branches is essential. Such a study can be done very easily with the help of input-output analysis.

(b) While studying the economy, it is very difficult to find out the effect of broad aggregates as the interaction between the aggregates would be very subtle, complementary and also confusing. The input-output

analysis helps in making meaningful breakdowns of the aggregates viz. Consumption, Investment, Expenditure etc., and enables us to study the effects with reasonable accuracy.

(c) The analysis is the *Master Chart* of the economy depicting the inter-dependence of the sectors.

(d) This is a *Ready Reckoner* to economic planners of the country. This will help in finding out the optimum solution in the matter of allocation of resources with a decided final targets of production. This will help in calculating the extent to which the investment is to be increased in different industries on the basis of coefficients of production of each industry.

(e) Modern techniques can be used in production with more systematic and scientific manner in the development process of the economy, as the planners need not calculate much about the pros and cons of the new system. The existing Input-Output table can be used for refinement and for greater proficiency of the planning activity. In short, this is a vital table for drafting efficient plans for development with assured success.

Drawbacks of Input-Output Analysis

The Input-Output analysis has certain drawbacks which should be noted in the practical field of work.

(i) We study only the inter-dependence of industries in the economy at a particular point of time. There is likelihood of mistaking the economy at a point of time to be the State of economy at all times and the economist may think that the economy would be in a state of equilibrium as indicated in the Table.

(ii) Present day society is highly dynamic and the Input-Output analysis is a static one depicting the working of the industries at a point of time. Hence, this analysis has only limited application.

Chapter 27

(36)

Rent

Different Concepts of Rent

The term 'Rent' has different concepts and meaning and it is used in different senses. In layman's language the term 'rent' is used in everyday life in the sense of a hire payment or a hire charge. It is a periodical payment for the use of a house, land or machine, etc., i.e., for the use of a fixed factor. This is known as *contract rent*. But in economics, the term rent is used in a special sense. It is called *economic rent* as against *contract rent*. The payment made by an agriculturist to his landlord need not be equal to economic rent. A part of this payment may consist of interest on capital invested in the land by the landlord in the form of buildings, fences, drainage, well, etc. The part of the payment which is made for the use of land only is called *economic rent* and the total payment made by a tenant to the landlord is called contract rent.

Ricardo and Marshall used the concept of rent as an income derived from the land, the free gift of nature. David Ricardo defined rent as "That portion of the produce of the earth which is paid to the landlord for the use of the original and indestructible powers of the soil. It is often, however confounded with the interest and profit of capital and in popular language the term is applied to whatever is annually paid by a farmer to his landlord".[1] According to Ricardian sense 'true economic rent' is associated with income derived from land and other gifts of nature. Contractual payment includes besides economic rent, the interest on capital invested by the landlord. The economic rent is only a payment for the use of the land. It excludes interest on landlord's capital investment.

Though Ricardo and Marshall have associated rent exclusively with land or free gifts of nature, modern economists have extended the concept of rent to cover other factors of production. Rent arises, according to modern concept, not only in land but also in other factors of production. Rent arises because of imperfectly elastic supply of land and if this characteristic feature is present in other factors, they may also earn rent and this is called land aspect in other factors. Thus there are three concepts of rent, viz.:

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1. Ricardo, David : *'Principles of Political Economy'*, p.47.

(i) Layman's concept – contractual rent;

(ii) Classical concept enunciated by Ricardo – Ricardian theory of rent as payment for the use of land; and

(iii) Modern concept of rent in the sense of rent as payment to any factor of production over and above its transfer earnings. We shall study the Ricardian theory of rent before taking up modern theory of rent.

Ricardian Theory of Rent

The classical theory of rent emerges from three important factors, viz.

(i) Supply of land;

(ii) Demand for food; and

(iii) Law of diminishing returns in agriculture.

Classical writers like West, Torrents, Malthus, Ricardo enunciated the theory of rent independently. However, the theory of rent as presented and elaborated by David Ricardo became very popular. Though the principle behind all classical theories of rent is the same, Ricardo gave credit to West and Malthus as his forerunners in the development of the theory of rent.

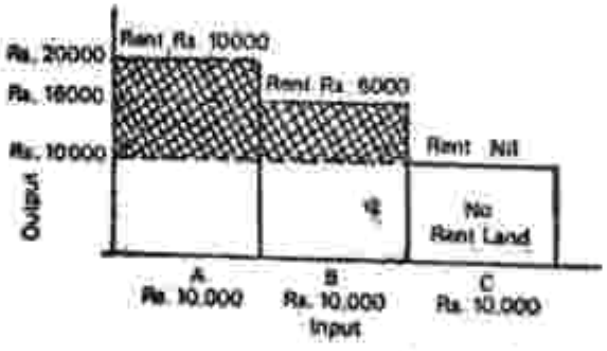
According to Ricardo, "Rent is that portion of the produce of the earth which is paid to the landlord for the use of the original and indestructible powers of the soil." Land, besides being limited in quantity also varies in quality. Some lands are more fertile than others. The most fertile lands are naturally the first to be occupied and cultivated. As the population increased, however, recourse must be had to inferior lands.

Let us suppose that the land in a given country falls into three grades, viz., A,B and C; A being the most fertile, B less fertile and C the least fertile. A will be cultivated first, and then, when population increases and the demand for food with it, B will be brought under plough. When there is further increase in population, C will be cultivated. Let us suppose that the capital and labour worth Rs.10,000 is spent on A grade land and the yield from the A grade is 100,000 units of corn. More corn is required for a growing population and so capital and labour worth another Rs.10,000 is employed on B grade land which yields 80,000 units of corn. The total output of A and B grades (180,000 units) being insufficient for the growing population, C grade land is taken up for cultivation by making an equal amount of input, viz., Rs 10,000 as in previous grades of land. Since C is the worst land in use, it yields only 50,000 units of corn. Assuming that all the corn are of the same quality, they must sell at the same price. Possessors of A grade land would demand at least Re.1 for 10 units of corn, although they would be willing to take any higher price. Similarly owners of B grade would accept a

price of Re.1 for 8 units of corn and the owners of C grade would demand a minimum price of Re.1 for 5 units of corn. It is obvious that out of these three possible prices, the only one that suits all growers is the price of the corn produced in the C grade land, i.e., 5 units of corn per rupee. This price is necessary if C is to remain continuously under cultivation, and C must remain under cultivation; otherwise the demand of the community for food cannot be met. At the uniform price of Re.1 for 5 units, all the expenses of production on C grade land will be just covered. But in the B grade land a surplus of Rs.6,000 will be realised and in A grade land a surplus of Rs.10,000 will be realised than C. In the illustration, C grade land is the worst land in use and it is called the Marginal land. Lands of B and A grades are above the margin and are called super-marginal lands. C yields just enough to cover the cost of cultivation and there is no surplus or rent in this grade of land. But a surplus or rent is obtained in the case of B grade and A grade lands to the extent of Rs.6,000 and Rs.10,000 respectively. Hence C grade land is called NO-RENT LAND. Rent on the superior land is measured from the marginal or non-rent land upwards. RENT IS EXPRESSED AS THE DIFFERENTIAL ADVANTAGE OF SUPERIOR LANDS OVER THE MARGINAL LAND. Rent arises because of superiority of some tracts of land over inferior tracts of land. *Rent is a differential surplus.*

According to Ricardo, the rent is the surplus product raised on a given tract of land in relation to land which only just repays for cultivation. It thus assumes the existence of land which yields on surplus rent and rent arises due to differences in fertility. Rent is also *an Un-earned increment* as it is sometimes called. It does not represent the reward for any special kind of effort or capacity. The land A,B and C grades are assumed to be cultivated in the same manner with equal efficiency. A and B however being superior in fertility yield a surplus over C. The Figure 27-1 illustrates the concept of rent as a surplus, which we have discussed.

FIGURE 27 – 1



In A Grade Land	*In B Grade*	*In C Grade*
Input = Rs.10,000	Rs. 10,000	Rs.10,000
Output = Rs.20,000	Rs. 16,000	Rs.10,000
Surplus = Rs.10,000	Rs. 6,000	Nil

Rent for A Grade : Rs.10,000

Rent for B Grade : Rs. 6,000

Rent for C Grade : Rs. Nil

Assumptions of Ricardian Theory of Rent

Ricardo explained the origin of rent, by taking into consideration the limited supply of land and the evergrowing population and the consequent increase in demand for food. In enuniciating the concept of rent as a surplus, certain inevitable assumptions are made by Ricardo.

(i) Like any other classical theories, Ricardo has assumed perfect competition and the theory is meant only for a long period.

(ii) It assumes that the land has certain 'Original and indestructible powers' which are not be found in other factors of production.

(iii) Rent is a payment for the use of this original and indestructible powers of the soil.

(iv) Ricardo considers the supply of land from the view-point of the whole society and takes the quantity of land as completely fixed. No amount of higher price for the use of land can call forth an increased supply of it. Thus the total supply of land is perfectly inelastic and unresponsive to any changes in Rent.

(v) It assumes that land is used only for growing crop, viz. corn and the alternative uses of land has been ruled out. Thus it makes the land completely 'Specific' in character.

(vi) Most fertile lands are cultivated first and then less fertile lands. It is assumed by Ricardo that if all lands are of uniform quality no rent would arise and rent arises only because of difference in fertility.

(vii) It is assumed that the law of diminishing returns is in operation perpetually and the population is increasing perennially.

(viii) There exists in every country a marginal land or no rent land and rent is calculated as a surplus over marginal or no-rent land.

Ricardian Theory of Rent and the Law of Diminishing Returns

The Ricardian Theory of Rent may be expressed by saying that rent arises from the operation of the law of diminishing returns. In Ricardian theory, the successive doses of capital and labour are used in an extensive

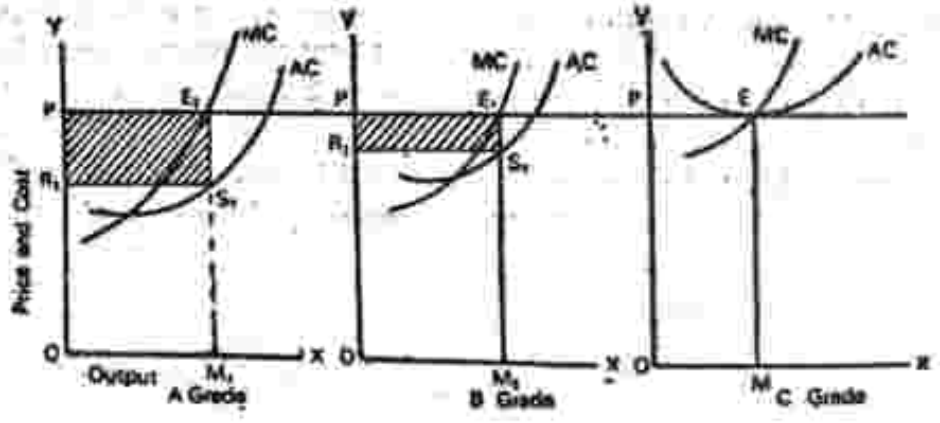
manner in different plots of land yielding diminishing returns. The successive doses of 'inputs' if applied intensively i.e., in the same superior land (Grade A) then the first dose of Rs.10,000 would yield 1,00,000 units of corn and the second dose of Rs.10,000 would yield 80,000 units of corn and the third dose 50,000 units. Here again the price should be uniform at 5 units per rupee in order to maintain the marginal dose. With this price, the first two doses realize a surplus and this is rent.

Ricardian Rent : Graphical illustration

From the study of Ricardian Theory, we can infer that rent arises as a surplus over cost of production. The marginal land just covers the cost of production and the superior lands get surplus over and above their cost of production because of higher prices of corn to maintain the last grade land. The three figures 27-2 (A grade) 27-2 (B grade,) and 27-2 (C grade) illustrate the surplus arising in the superior A and B grades of land over C grade land which covers just the cost of production.

The prevailing price is OP on the basis of the corn produced in C grade land. The land produces OM units of corn. At E, the marginal cost is equal to price and this is equal to average cost. There is no surplus in C grade land and the cost is covered by the price. At a price of OP prevailing in the market, the Grade B land comes to equilibrium at point E_1 and produces OM_1 quantities of corn. The average cost of production being less, B grade makes a surplus shown by the shaded portion of the rectangle $PE_1S_1R_1$. This is rent for B grade land. At the prevailing market price of OP, A grade makes still larger surplus. A grade comes to equilibrium at E_2 and produces corn OM_2. The surplus realized by this land is shown by the shaded portion $PE_2 S_2 R_2$. This is the rent for A grade land. A grade has realized huge rent or surplus B grade some surplus : and C grade no surplus or rent.

FIGURE 27 – 2



From this study, we can come to the conclusion that Grades A and B land get rent because of high prices of corn determined to cover the C grade land. So, rent arises because of high prices of corn. *Rent is price-determined surplus.* According to Ricardo, the rent is paid because the price of corn is high and not the price is high because rent is paid. Price is the cause and rent is the effect.

Criticism of Ricardian Theory of Rent

The assumptions and explanation of the concept of rent of Ricardo have led to serious criticisms. Let us examine the most important criticisms levelled against this theory of Rent.

(1) The expression of Ricardo in his definition that rent is due to the "Original and indestructible powers of the soil" has been severely criticized. The powers of the soil, for which rent is paid, are not always original; in some cases they are acquired through scientific manuring. Even taking for granted that the soil had original powers or fertility, it does not exist seperately from the capital invested in it and therefore it is indistinguishable from the capital. Again fertility or the original powers of the soil is destructible by indiscriminate cropping. So the contention of Ricardo that the soil has original powers and original fertility cannot be destroyed would not be correct. However, Prof. Haney has answered the criticism by saying that there are certain elements that go with land, such as climate and sunshine which cannot be increased or destroyed and these elements are relatively permanent. Instead it would be better to interpret Ricardian expression of "original and indestructible powers of the soil" to mean the imperfect elasticity of the supply of land to changing prices of land as has been done by Stonier & Hague.[2]

(2) The order of cultivation explained by Ricardo is criticized as historically false. According to him the best lands are cultivated first and later on inferior lands are taken up on the merit of goodness. American economist, Henry Carey has pointed out that the order of cultivation is just the reverse. In America, the less productive lands were cultivated first and more productive only afterwards. But the contention regarding the order of cultivation need not be taken as a serious one because it is not the essence of the theory. The order of cultivation is only an illustration and a method of presentation made by Ricardo just to explain thatands differ in fertility. Ricardo's Theory is not disproved even if the order of cultivation is reversed.

(3) The most damning criticism against the Ricardian Theory is that it is thoroughly hypothetical and unreal. The assumption of perfect

2. Stonier and Hague : A Text book of Economic Theory, p.276.

competition on which the theory stands is highly imaginary and it does not exist in practical life. In real life, the rent charged by the landlords from the farmer is more than the economic rent. Further, it is also unrealistic to say that the theory is applicable only in the long period. Rent arises in the short period also and Marshall has explained this concept as quasi-rent.

(4) There is lot of controversy and contention on the concept of no-rent land stated by Ricardo. According to critics there may not be a no-rent land in the country. If population is increasing and the demand for food with it, even the worst land might bring some rent. Malthus has written about scarcity rent pointing out that even if all plots of land were of uniform quality, rent will emerge owing to scarcity of land and pressure of demand. Modern critics contend that as the increasing population and demand would fetch rent even for the worst land and there would not be any no-rent land in the country. This is true to a certain extent. But if the market extends beyond the national boundary, no-rent land may exist in some other country supplying the same market. Even if we assume that there is no rent land for the sake of arguement, there should be no rent dose in cultivation and it may determine the rent.

(5) The theory assumes unfailing operation of the law of diminishing returns. Ricardo could not anticipate that the effect of the law could be checked by technological and organizational improvements.

(6) While assuming inelastic supply of land, Ricardo has failed to take into account the various alternative uses to which land can be put. He has made an unrealistic assumption that the land could be used for growing a single crop 'Corn'. Thus land has been taken to be completely specific to one crop, i.e., corn. According to Ricardo model, either land is to be used for growing of corn or alternatively it has to be left idle. Thus Ricardo takes the transfer earnings of land as zero. In practice, no land owner would like to leave the land idle and therefore every land owner will be prepared to give it for any rent, however little it may be, provided the competition is perfect.

(7) According to Ricardo, Rent does not enter into price and rent is a price-determined surplus. Rent does not enter into the cost of production of the marginal or no-rent land, but the cost of production of the marginal land determines price. Rent is high when the price is high and rent is low when the price is low. This relationship between rent and price as enunciated by Ricardo is criticized that it is not always true. According to modern economists, under certain conditions, rent does enter into cost of production and thus influence price. For instance in the case of an individual cultivator, the entire rent paid by him is an item of the cost, and influences the price of agricultural produce. For an individual

farmer, the supply of land is perfectly elastic at the given rate of land rent. Hence the whole rent is a necessary payment and he must include it in the cost of production on the basis of which the price of commodity will be determined. "Ricardo was right when he wrote: Corn is not high because a rent is paid, but a rent is paid because corn is high." But that 'right' must be interpreted solely in the sense of inelastic supply curves that are confronted with a derived demand. If the latter is at high level because end-product is expensive, a high land rent results from the market; that rent is not a cause but a consequence. However, one may not deduce from that the rent for the individual farmer is not a part of the costs. Not a single farmer would believe that, and rightly so. He simply has to pay for the land as for labour and for capital.[3]

(8) It has been pointed out by critics that the concept of rent as a differential surplus due to inelastic supply may arise in other factors of production as well and rent need not be attributable in the case of land alone. There is no difference between land and other factors fundamentally. If rent is a differential surplus, why not wages, interest and profit also be called a differential surplus. According to modern economists, the term rent is used for the surplus earning of any factor of production in excess of the cost incurred to obtain its service.

In spite of its many drawbacks, the Ricardian theory of Rent occupies a very popular and significant place in economic theory. Ricardo has assumed that land as a factor of production is fundamentally different from other factors. The modern theory of distribution expresses in the concepts of distribution in terms of marginal productivity. We should give credit to Ricardo for arriving at the concept of marginal land. If he had gone a step further and had considered the productivity of this marginal land, as we do in modern economics, he would have arrived at the modern theory of marginal productivity. But instead of doing this, he considered rent as a differential surplus over the produce of the marginal land and missed the point. The modern theory of marginal productivity applies to land in the sense of soil and fertility as much as it applies to labour and capital. Despite these demerits, the Ricardian theory had influenced the practical policy in western countries. It brought to the forefront the parasitical nature of landlordism. Rent, according to Ricardo is not the result of any effort or activity on the part of the landlord. The abolition of idle landlordism in many countries can be traced to the influence of Ricardian theory of rent.

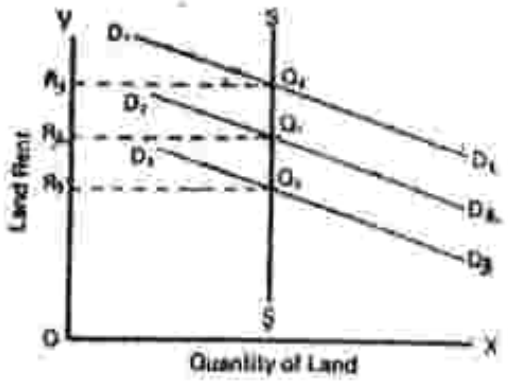
Scarcity Rent

Where the population is increasing and consequently the demand for land, even the worst land or no-rent land of Ricardo would yield rent.

3. Jan Pen, *Income Distribution* (Penguin) 1971 p.128.

The rent arises because of scarcity and hence this is called scarcity rent. It is a price paid for the use of land when it is scarce in relation to the demand for it. The scarcity theory of rent enunciated by Malthus assumes that all land is homogeneous and specific. But they are scarce. The scarcity rent arises due to inflexible or rigid supply of land. The supply of land is slightly different from the supply of other factors of production. In other factors, a rise in price would cause an increase in their supply, at least in the long period. But in the case of land an increase in price (i.e., rent) cannot bring about any increase in the supply of land at all as the supply of land is already fixed. It is because of the fixity of the supply of land, scarcity rent emerges. Since the supply of other factors can be increased in response to the increase in prices, no such scarcity rent arises in the case as in the case of land. The Figure 27-3 illustrates scarcity rent.

FIGURE 27-3



The supply of land is assumed to be fixed at SS and the Demand D_2D_2 cuts the supply curve at Q_1. Assuming perfect competition, the rent is OR_2. When the demand increases in D_1D_1 the rent is increases to OR_1 and when demand decreases to D_3D_3 rent decreases to OR_3. Thus rent arises due to heavy demand and consequent scarcity of land.

MODERN THEORY OF RENT

The classical Economists felt the need for a seperate theory of rent because they thought that 'Land' as a factor of production is fundamentally different from other factors of production. But according to modern concept all factors of production are alike and there is no basic difference between them. As such, a special theory of Rent as developed by Ricardo is not necessary. There are no special qualities of land which are not be found in other factors. The so-called special qualities of land stated by classical economists are only superficial and those special qualities can also be had in other factors of production. The first quality

of land is its fixity of supply and the supply of land is limited in relation to demand. The quality, according to modern economists, can also be found in other factors like labour and organization. Ricardo pointed out that from a qualitative point of view, the supply of land is inelastic. The supply of good quality land is limited. Now, this attribute of land is also found in other factors. Skilled labour and first rate entrepreneurship are limited in supply. Hence there is no speciality in land alone. Since land, labour and capital are exactly alike as factors of production, payment for all these is determined by exactly the same fundamental principle of demand and supply of the factors and marginal productivity. The payment made for the use of land, in equilibrium, is equal to its marginal productivity in the same way as payment of labour. But in order that payment may be made and claimed according to marginal productivity, a factor of production must be perfectly mobile i.e., non-specific. Because of physical fixity of land, the classical economists mistook that land is immobile and as such it should be construed as a specific factor of production. Physical mobility of a factor is of no significance in Economics. Mobility of a factor in economics is the mobility between various uses of production. In this respect, all these factors of production including land can be classified as specific and non-specific factor. A specific factor (immobile) is one which is put to only one use while a non-specific(mobile) factor can be put to various uses. For instance, a labour is non-specific (mobile) in the sense that can be work as a porter in a railway station or as a cooly in a bazaar or as a mason's assistant. But when once he enters into contract to become a mason's assistant for a stipulated period of work, he becomes specific (immobile) and his labour cannot be put to other uses.

In the same manner, a plot of land may be specific (immobile) or non-specific (mobile) factor of production. The plot of land can be made use of for producing sugarcane or banana or paddy. If so chosen, the plot of land may be utilized to construct a building or a playground or may be used as a burial ground. When the plot has been drafted for the growing of banana and necessary investments are made, then this plot of land becomes 'specific' (immobile) till such time the crops are realized. Afterwards it again becomes non-specific.

So also the case with capital. It may be specific or non- specific. But the factors cannot be completely specific and completely non-specific. A specific factor in due course may become non-specific and vice-versa. All factors of production are partly specific and partly non-specific. In this respect every factor is mobile as well as immobile. *Rent is a payment for a factor for its specificity.* Since classicals had committed the blunder in considering that land is always specific (immobile) and that it is the only factor specific, they enunciated a seperate theory of Rent. If they

had somehow realised that there are other factors than land which can be also be specific and that land need not always be specific, they would have come to the correct theory. In their case RENT is payment for Immobility or specificity which they called by the name of land. In modern economics the term rent is also used for payment of specificity and specificity has been called the 'land aspect'. *Rent is therefore earned for the 'land aspect' of a factor of production.* This is the justification for retaining the word RENT and for using the phrase *land aspect* to pay our respect to the classical economists. Since, every factor of production is partially specific and partially non specific, we can say that each factor has a land aspect and to that extent it earns rent. In this way RENT forms part of every income.

The modern theory of Rent defines rent in two ways :

(i)It is a payment for the use of land and is determined by the demand for and supply of land ;

(ii) It is a surplus over transfer earnings or oppurtunity cost. This accrues not only to land but also to other factors.

Demand and Supply Approach to Rent Theory

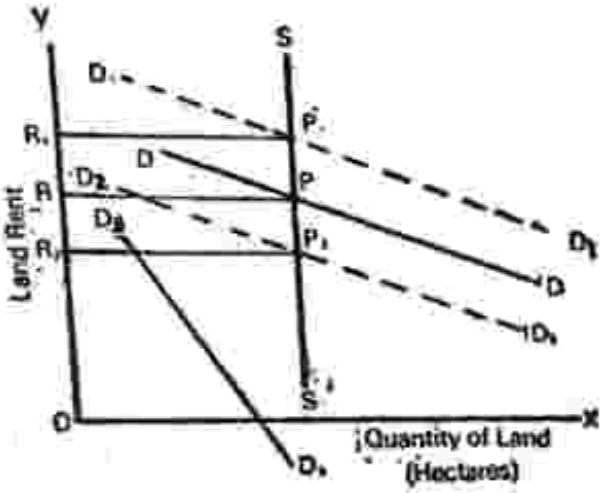
We have already studied that the demand for a factor of production is derived demand. So also, the demand for land is a derived demand depending on the products produced by land. If the demand for products rises, the demand for land will rise correspondingly; If the demand for products fall, the demand for land will decrease. This will lead to corresponding increase or decrease of rent. Suppose the population of a country increases, the demand for food will also increase along with it. Consequently the demand for land will increase leading to increased rent. We have studied under marginal productivity theory that the demand for a factor depends on its marginal productivity, i.e., marginal Revenue Productivity. This productivity of the factor is subject to the law of diminishing returns and the demand curve for a factor will be a sloping down curve from left to right. Thus rent of land is determined, on the demand side, by its *marginal productivity* and not total productivity.

Viewed from the *Supply side*, the land is more or less fixed in supply from the point of view of the *Community as a whole*. Though from an individual's point of view, the supply of land is elastic and many reclamation projects release more land for cultivation, the extra supply is negligible considering the total supply of land available for the community and as such the supply of land may be taken as absolutely *inelastic*. Its supply is independent of what it earns. On these assumptions, the supply curve of land is taken as *perfectly inelastic*. Further we

assume that land is homogeneous and it is used for raising one crop. Then only, we can have one demand curve and one supply curve for the land in a community. We also assume perfect competition.

With these assumptions, we draw the demand curve and supply curve of the land. The demand curve will be sloping down curve from left to right showing that as the price of land (rent) decreases more quantities of land are demanded. On the supply side, the curve is a vertical straight line representing fixed supply. The Figure 27-4 illustrates the interaction of demand and supply of land and the resultant rent of land.

FIGURE 27.4



SS is the supply curve indicating fixed supply. DD is the total demand curve for land. The two curves intersect at P and the rent is fixed at OR. If the rent is less than OR the demand for land will increase. As the supply of land is fixed, rent will rise again to OR. If the rent rises above OR, then the demand for land will decrease and bring the rent back to OR. Suppose, due to increase in population the demand for land has increased from DD to DD_1. The supply being constant, the new equilibrium point will be P_1 and the rent will rise up to OR_1 as shown in the figure. If the demand for land falls to D_2D_2 the point of intersection between demand and supply comes at P_2 and the rent falls to OR_2. Suppose the demand for land falls low as represented by the curve D_3D_3, as shown in the figure intersecting x axis, the rent will be zero. With this demand curve D_3D_3, the land becomes a free commodity. It is not scarce enough to command a price considering the poor demand for that. When the supply of land is abundant in relation to its demand, the land will not command a price and it will be a free commodity. This situation is not imaginary. It was found in the *free land era* of American history.

If the land is of different qualities, then each quality of land will have a separate demand curve and different lands will command different rents. Hence this supply-demand theory explains the differential rent too.

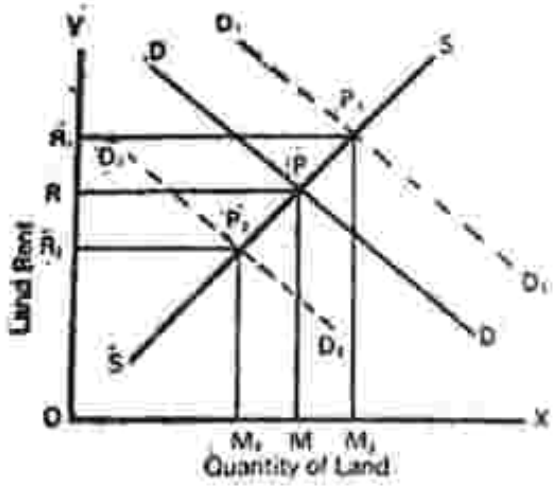
Thus, according to modern theory, the rent for land is determined, like other factors,on the interaction of demand and supply. The scarcity of land in relation to demand determines rent. Land gets rent because the produce of land is scarce in relation to demand and scarcity of land is derived from the scarcity of the produce. The demand is an active determinant of rent while the supply is positive and because of fixed supply of land, rent does not serve as incentive.

Rent of land from individual's view or for particular use in an industry

We discussed the rent of land with demand and supply factors in relation to community as a whole by keeping the supply of land fixed. But from the individual or from the industrial point of view, the supply of land is not fixed. The industry can get larger supplies by offering more rent.

So, from the firmal or industrial or individual's point of view the supply curve will not be a vertical straight line. The supply curve will be elastic and it will be rising upwards from left to right as shown in the Figure 27-5.

FIGURE 27-5



SS is the supply curve showing that more supply of land will be forthcoming with increased rent. The DD is the demand curve and the point of equilibrium is P. The rent is OR. At this rent OR, the industry uses OM quantity (say hectares) of land. Suppose the demand increases

to D_1D_1, the new point of equilibrium is P_1 and the rent rises to OR_1 and the quantity demanded at this rent is OM_1 (hectares). Similarly when the demand falls to D_2D_2 the rent comes down to OR_2 and at this rent the industry demands OM_2 hectares of land. From the figure we can deduce that with the fall of rent from OR to OR_2, a quantity of land equal to M_2M has gone out of the particular use of the industry.

This method of arriving at rewards for factor land is equally applicable to other factors also viz., capital, labour and organisation.

In the modern approach based on demand-supply theory, the increase in population will shift the demand curve for land upward and thereby push up the rent. Thus, the demand- supply or marginal productivity approach of modern economist and the differential return approach of Ricardo are alternative explanations of the same phenomenon and are in no sense contradictory. The adoption of Ricardian differential principle leads to the misunderstanding that *rent* of land acquires a special theory due to differential surplus whereas in other factors it is explained on the basis of marginal productivity principle. This is not so. All factor pricing is done on the basis of demand-supply principle and all factors earn differential surplus. Barring this lacuna, there is unity of economic thought and similarity of treatment between Ricardian and modern approach.

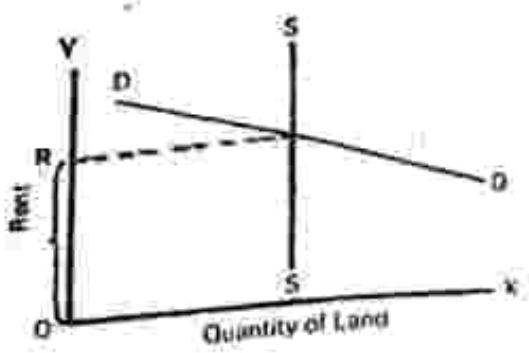
Transfer Earnings or Opportunity Cost

Modern Economists have evolved the concept of transfer earnings or opportunity cost in explaining rent. In modern theory, rent which is a payment for specificity or the land aspect is calculated with reference to opportunity cost. This means that in order to find out the element of specificity in a particular factor of production, we have to find out, how far this factor can earn in alternative use. What a person, piece of land, or capital can earn, in an alternative use, is known as its Opportunity Cost or transfer earnings or income foregone alternative. They all mean one and the same thing. The element of rent in the income of a factor of production can be discovered with the help of opportunity cost and this is one of the brilliant discoveries of modern economics. Rent is a surplus over opportunity cost.

Suppose there is an engineer whose present income is Rs.2,000 p.m. and if he were to go to an alternative job he will get Rs.2,000. In this case there is no surplus over opportunity cost and whatever is earned by the engineer in the present job can be earned in the alternative job. Hence there is no element of rent in the income of the engineer. He is perfectly non-specific and gets payment equal to his marginal productivity. Suppose in an alternative job the engineer could get Rs.1,500 p.m.; the rent element in the present income of Rs.2,000 is Rs.500. Because of the

this case the *entire income from Land is surplus and hence rent.* This condition is shown in Figure 27-7.

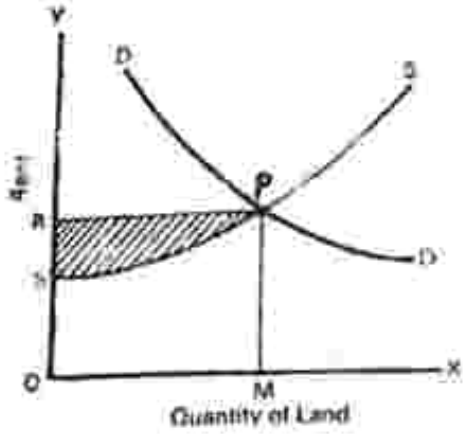
FIGURE 27-7



(c) *When the supply of land is elastic but not perfectly elastic.*

In this case, a part of the income from land is rent, in the sense of surplus over transfer earnings and part is not rent. This is shown in the Figure 27-8.

FIGURE 27-8



SS is the supply curve of land. It is partially elastic. It intersects DD at P. Hence OM land is used and the rent per unit is OR which is equal to PM. The total earnings are OMPR and transfer earnings is OMPS. Actual earnings minus transfer earnings = RPS (Shaded area) which is the surplus or rent.

Thus rent in modern theory is determined, first as a payment for the use of land on the basis of demand and supply and secondly as a surplus over transfer earnings.

QUASI-RENT

The concept of *Quasi-Rent* was introduced by Alfred Marshall as an extension of Ricardian concept of rent. According to Marshall, Quasi-rent refers to short-rent, earnings of capital equipment such as machinary, building, etc., which are inelastic in supply in the short period. The distinguishing feature of land is that its supply is perfectly inelastic to changes in price and therefore its earnings mainly depend upon the demand. Similarly, in the short period, the fixed capital equipment and machinery are fixed in supply and the earnings of these depend upon the demand conditions and are thus similar to land rent and have therefore been called rent by Marshall. Since the supply of capital equipment is fixed only in the short period , the earnings in the short period is called quasi-rent instead of rent by Marshall. The supply of land is fixed in the short as well as long period while the supply of capital equipment is fixed only in the short period. In the short period, there is similarity between the supply of land and the supply of other factors though this similarity disappears in the long period. The additional income earned by these factors in the short period is smaller to rent. Since this rent is only a temporary phenomenon, it is termed quasi-rent. The concept of quasi-rent is defined as "the short-run earnings of a machine minus the short run cost of keeping it in running order". Stonier and Hague have defined quasi-rent as follows: "The supply of machines is fixed in the short- run whether they are paid much money or little so they earn a kind of rent. In the long run this rent disappears for it is not true rent, but only an ephemeral reward —— a 'Quasi-rent'."[7]

The quasi-rent of Marshall can be illustrated in many ways. During the World War II, there was a sudden increase in the demand for shipping and the supply of ships, as we know, could not be increased over-night. Since there was acute shortage of shipping in the war time, the freight charges went up. Not only the existing ships earned enormous income, but also old and discarded ships wheih were pressed into service earned abnormal freights. Thus the ships earned a surplus over their normal income. The additional income was due to shortage of supply of ships and the surplus earnings were only a short period phenomenon. In the long period, new ships were construced and shipping charges came down. Hence the quasi-rent earned by the ships in the initial period of the war, disappeared altogether.

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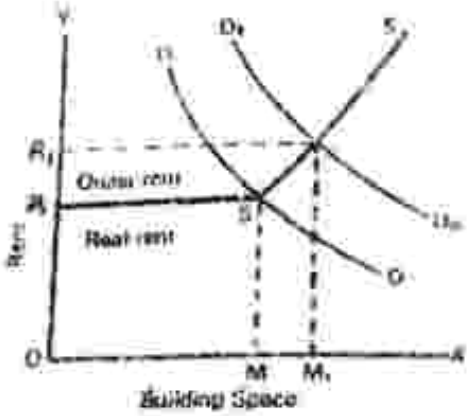
7. Stonier and Hague, *A Textbook of Economic Theory*, 4th ed.p.329.

Suppose a fisherman has a few nets to hire out; if the demand for fish increases suddenly and consequently demand for nets also increases, the fisherman can charge more rent because the supply of nets cannot be increased at short notice. The increased rent which he gets is not due to his effort or action but due to increased demand. This surplus is called quasi-rent which will disappear when more nets are produced in the long run.

The short period temporary surplus called by the name quasi- rent can be had in many cases. Suppose due to the shifting of a big government office from the city to semi-urban or mofussil area, the government employees move to the new headquarters demanding building space for accomodation. The rent would go up, as in the short period, the supply of buildings cannot be increased. Even third-rate buildings would fetch fantastic rents. But in the long period, after the construction of new houses or quarters, this additional income or quasi-rent will vanish. The concept of quasi-rent can be expressed in Figure 27-9.

FIGURE 27 – 9



The figure illustrates that the rent of building space is fixed in the mofussil area and anyone can occupy OM amount of space at OR price. The landlords get real rent because OR amount is necessary for OM space. Suppose as stated, the demand for space increases suddenly from DD to D_1D_1. It is difficult to get additional space. So second class and inferior building space would get up-graded to first class space and the price would go up from OR to OR_1. As the price rises, the space offered increases from OM to OM_1. Each unit of additional space brought into the market will get a higher price OR_1 which will apply to all units. This means that all the space represented by OM_1 will now receive a higher rent OR_1 instead of OR. This additional revenue accrues to the owners because the supply curve has become upward sloping. Thus quasi-rent is

a return for scarcity in the short period. This phenomenon can be found everywhere. Hence it is said quasi-rent is ubiquitous.

Quasi-Rent and Interest

Quasi-rent and interest are related. The former is the return on sunk capital, interest is the return on floating capital. Quasi-rent arises in the short period while interest arises in the short and long periods. Interest does not disappear altogether, but Quasi-rent can become zero. quasi-rent does not enter the cost of production, but interest enters into cost of production. The distinction between quasi-rent and interest is only one of degree. Any factor which is permanently fixed earns rent. Any factor which is fixed for a short period earns quasi- rent, and that which is not fixed at all in any period earns interest. Hence Marshall remarked that "Each group shades in the other gradually and thus the rent of land is seen not a thing by itself but as the leading species of a large genus".

Differences Between the Rent and Quasi-Rent

RENT	QUASI–RENT
(1) Accrues to Land and other factors whose supply is fixed in the short as well as the long period.	(1) Accrues to factors (Other than land) whose supply is fixed in the short period but can be increased in the long period.
(2) Permanent phenomenon.	(2) Temporary phenomenon.
(3) It is payment to induce the owners to offer the factor in the market.	(3) It is not a payment to induce a factor to enter the market.
(4) Does enter into price.	(4) Does not enter into the cost and it is price–determined.

Quasi-Rent in Relation to Cost of Production

Marshall has employed the concept of quasi-rent in the context of cost of production and deduced the quasi-rent through cost of production. We know that the production of a commodity is possible only with fixed cost and variable cost. In the long period, the price of the commodity must cover both these costs. But in the short period both these costs may not be covered by the price. However, the firm will continue if the variable costs are covered in the short period. If the variable costs are not covered in the short period the production would be stopped and the firm would close down. The firm will carry on as long as the price remains

equal to the variable cost in the short period. According to Marshall, quasi-rent will accrue to the firm if the price of the product exceeds the variable cost in the short period. Whatever excess earnings over and above the total variable costs are made, are ascribed to the machines (i.e., fixed factor). Therefore, quasi rent will be measured by the extent of the excess price over the variable cost. Thus quasi-rent has also been defined as the excess of total revenue earned in the short period over and above the total variable cost. Thus, Quasi-rent = Price – Average variable cost. Quasi-rent is a short run surplus over average variable cost. It is regarded as the difference between total revenue and total variable cost in the short period. In the long run, all costs are variable and in the long-run competitive equilibrium, total receipts are equal to the costs including normal profit to the entrepreneur. So, no excess earnings would accrue over and above the cost and therefore no quasi-rent will be earned by the machines.

Mysore State and Government of India. The Company had been facing heavy losses for some years. Its accumulated losses by 1970-71 amounted to Rs. 8.89 crores. But the company somehow managed to get a marginal profit from 1972-73 onwards. It is also embarking on expansion plans to produce 15,000 tons of ferrosilicon and heavy forgings at a cost of about Rs. 10 crores. Thus in the pre-independence days, India had three units producing iron and steel; two in the private sector and one in the public sector.

IRON AND STEEL INDUSTRY IN THE POST-INDEPENDENCE PERIOD

With the dawn of independence, the Government of India took up the programmes of industrial expansion in iron and steel under the public sector. The existing Tata Iron and Steel Co., was allowed to continue in the private sector, but new units were prohibited from private sector.

The first step in the direction of public owned steel plant was taken up in the year 1954 with German aid. A plant was set up in Rourkela (Orissa). In 1955, with Russian aid, another plant was set up at Bhilai (Madhya Pradesh), and in 1956, the third plant was set up at Durgapur (West Bengal) with British aid. Another steel plant was set up in 1965 at Bokaro (Bihar) with Russian help. During the Fourth Plan period, steel plants at Visakapatnam in Andhra Pradesh, Hospet in Karnataka and Salem in Tamil Nadu were started. All have been kept under public sector to have regional balance.

With the takeover of the Indian Iron and Steel Company in July 1976, at present, there are six integrated steel plants in the country – five in the public sector and one in the private sector. The total capacity of these six plants is 106 lakh tonnes of ingot steel and 80.9 lakh tonnes in term of saleable steel. The Table 35.4 gives plant-wise capacity.

Table 35.4

Plant-wise Capacity of Steel Industry

Name of Unit	*Rated Capacity in '000 tonnes*	
	Ingot steel	*Saleable steel*
Public Sector:		
Bhilai ..	2,500	1,.965
Durgapur ..	1,600	1,239
Rourkela ..	1,800	1,225
Indian Iron & Steel Co., (IISCO) ..	1,000	800
Private Sector:		
Tata Iron & Steel Co. (TISCO) ..	2,000	1,500
Total:	10,600	8,093

Progress under Five-Year Plans

As we have studied already, at the beginning of the First Five-Year Plan after Independence, there were only three major producers of iron and steel in India., i.e., Tata Iron and Steel Company, Indian Iron and Steel Company and Mysore Iron and Steel Works. As for the private sector, the expansion programme envisaged an increase in the rated capacity of finished steel to 15.5 lakhs tonnes in 1955-56 as against 9.7 lakh tonnes in 1950-51 and that of pig iron to 27 lakh tonnes in 1955-56 as against 18.5 lakh tonnes in 1950-51. The modernisation programme and expansion programme launched with TISCO were carried out very successfully.

During the Second Plan period, three plants in the Public sector were established (Rourkela, Bhilai and Durgapur) under the ownership and control of Hindustan Steel Limited (HSL) at an over all cost of Rs. 635 crores.

During the Third Plan the capacities of Bhilai, Rourkela and Durgapur were increased and the plan fixed a target of production of 10 million tonnes steel ingots or about 7.5 million tonnes of saleable steel. Actually by the end of the Third Plan period, the saleable steel produced was only 4.9 million tonnes and ingot steel produced was only 6.5 million tonnes.

During the Fourth Plan, it was envisaged that the total capacity would be stepped up from the level of 8.9 million tonnes in 1968-69 to about 12 million tonnes ingots by 1973-74. The production in 1973-74 was 5.8 million tonnes of ingot steel and that of saleable steel was only 4.35 million tonnes.

The major programmes during the Fifth Plan were (a) Expansion of Bhilai plant to 4 million tonnes; (b) Expansion of Bokaro on a continuous basis to 4.75 million tonnes; (c) Significant progress in the implementation of the Visakhapatnam and Vijaynagar steel project; and (d) steps for the completion of alloy steel plant at Salem with an initial capacity of 0.25 million tonnes. The Fifth Plan also made provision for technological improvement in the existing steel plants.

During the Sixth Plan, further expansion of Bhilai and Bokaro was carried out. Consequently, the production of saleable steel increased to 8.77 million tonnes by the end of the Sixth Plan. The Seventh Plan increased the capacity to 14.84 million tonnes and production target had been kept at 12.64 million tonnes.

The Eighth Plan provided comprehensive effort in the industry towards modernisation, upgradation of technologies, replacement of obsolete equipment and also removal of technological imbalances.

During the Ninth Plan (1997-2002), there was considerable capital restructuring of the steel units in the public sector. There was considerable progress in the export of steel during the last two years of the Ninth Plan; besides domestic demand is also increased due to highway construction in many parts of the country.

However, at the time of formulation of Tenth Plan, there was general slowdown of the progress of steel industry, due to restrictions imposed by major steel importing countries. Hence, Tenth Plan did not contemplate on providing additional capacity for the steel plants.

Table 35.5

Progress of Steel Industry

(Production in million tonnes)

Year	*Steel Ingots*	*Saleable Steel*
1950-51	1.5	1.0
1970-71	6.1	4.6
1990-91	14.7	13.5
1994-95	14.9	17.8
1997-98	24.8	23.4
2000-01	27.0	30.6
2004-05	34.8	39.3

During the Planning period, the steel industry has made a very remarkable progress, production of crude steel has increased from 1.5 million tonnes to 34.8 million tonnes. This rate of growth, though seems to be very impressive, cannot be considered as adequate, as India has to import steel from foreign countries. India is a leading importer of steel, on an average of Rs. 3000 crores per year.

India produces 86.5 million tonnes (MT) of steel, which is over 5 per cent of world production, making it the fourth largest producer of crude steel in the world. Domestic steel consumption in the country was 76.99 MT per cent in 2014-15, showing a modest increase of 3.9 per cent over 2013-14. Global steel consumption was estimated to increase by 0.5 per cent in 2015 and a projected 1.4 per cent in 2016. The World Steel Association has projected India's steel consumption to increase by 6.2 per cent in 2015 and 7.3 per cent in 2016. Steel imports increased from 5.45 MT in 2013-14 to 9.32 MT in 2014-15. While world prices declined by 20 per cent to 45 per cent during April 2014 to October 2015, domestic prices of steel products declined from 17 per cent to 35 per cent during this period. Steel production in India has fallen short of the increased capacity from 59.85 MT in 2007-8 to 109.85 MT in 2014-15.

Another important feature of the progress of steel industry in India is its growth in research and design and it is also self-reliant to set up new steel plants without depending on foreign countries. For instance, Bokaro steel plant was set up on its own without foreign hand.

Another important aspect of the progress of the industry is that the Government gave licences to set up electric are furnace units, popularly known as *Mini Steel Plants*, producing mild steel and alloy steel. There are 179 mini steel plants with a total capacity of 5.6 million tonnes.

The industry is performing well in recent years due to liberalisation measures, such as the abolition of Steel Development Fund, steady reduction of import tariff, the modernisation and upgradation of technology and also compulsory cost reductio through quality improvement.

The Government has liberalised the steel policy and issued a new set of guidelines from 1990 onwards. Under the new policy, the private sector has been allowed to set up steel plants with a capacity of upto one million tonnes per annum and for this purpose, they are free to choose between the Electric Are Furnace and blast furnace processes. *The Government abolished price and distribution controls on iron and steel items manufactured by integrated steel plants with effect from January 1992. The Freight Equalisation Scheme was also withdrawn. The iron and steel sector is now open entirely without any sectoral reservations, licensing pricing, distribution and control.*

This liberalisation is a radical departure for the industry which was experiencing near exclusive public sector monopoly and also canalised imports, protective import tariff and government regulated domestic prices.

The decontrol and liberalisation policy has led to sudden rise in steel prices of various items. Reduction in import duty on various items of steel has, now, some moderating influence on the market price of steel.

STEEL AUTHORITY OF INDIA LIMITED (SAIL)

To co-ordinate the development of the iron and steel industry both in public can private sectors, the government of India set up the Steel Authority of India Ltd., (SAIL) in 1973.

SAIL owns all the shares in the public sector corporations connected with steel and associated industries like coking coal, iron ore and manganese ore as well as all Government shares in the private sector companies. It also acts as the nominee of public sector financial institutions, which hold shares in private sector companies for steel and associated input industries, refractory units and smaller steel producing organisations. The management of public sector plants, viz., Bhilai, Durgapur and Rourkela is vested in the state owned Hindustan Steel Ltd., a subsidiary of SAIL.

Let us discuss in detail the origin, objectives and achievements of SAIL.

Origin of SAIL

The public sector plants, in steel were making poor progress. The Hindustan Steel Limited which managed all state owned steel plants suffered cumulative losses. Heavy capital investment, technical know-how, ever increasing demand of steel, problem of steel prices, problem of metallurgical coal, etc., were scourging the steel plants of the country. Because of these problems the production was lagging behind the targets. The condition before the establishment of SAIL can be summarized as follows:

(i) Production was far below the target.

(ii) Rs. 3,400 million worth of steel had to be imported every year because of poor production.

(iii) Strikes were endemic and absenteeism and indiscipline were the order of the day in steel plants.

(iv) There was frequent breakdown of plants.

(v) The supply of coal was very irregular.

(vi) Black market in steel was flourishing. It was estimated that blackmarketing in steel exceeded Rs. 5,000 million a year.

To overcome these defects and problems which had besieged the steel industry, a new organization called the Steel Authority of India Ltd. (SAIL) was created on January 24, 1973 out of the fertile imagination and endeavour of the late Mohan Kumaramangalam, the then Union Minister for Steel and Mines.

The Steel Authority was charged with the responsibility of increasing steel production and productivity, ensure proper distribution, cut down steel imports and build practical perspectives of growth.

Objectives of SAIL

Late Mohan Kumaramangalam, the Father of SAIL had put the objective himself as follows:

(i) In accordance with the National Economic Policy and objectives laid down by Government from time to time, the SAIL is to plan, promote and organise and integrated and efficient development of the iron and steel and associated industries such as iron ore, coking coal, manganese, limestone refractories, etc.

(ii) It is to co-ordinate the activities of the subsidiaries to determine their economic and financial objectives/targets and to review, control, guide and direct their performance with a view to securing optimum utilisation of all resources placed at their disposal.

(iii) The SAIL is to act as entrepreneur on behalf of the state to identify new areas of economic investments and to undertake or help in undertaking of such investment.

(iv) To formulate and recommend to the Government a national policy for the development of iron and steel and related input industries and to advise it on all policy and technical matters.

Immediate objectives facing SAIL were

(i) Maximum utilisation of the installed capacity;

(ii) More production to bring down prices and black marketing;

(iii) to make India exporters of steel on a permanent basis; and

(iv) to ensure co-ordination between steel industry and industries associated with it like coal, iron and manganese.

The Steel Authority of India, Limited (SAIL) is now the largest industrial enterprise in India according for an investment of Rs. 6,304 crore and a work force of over 2.5 lakhs persons. The Steel producing units under the ownership and management of the SAIL are Bhilai, Durgapur, Rourkela and Bokaro steel plants and also the Indian Iron and Steel Plant at Durgapur under it. Salem steel plant in Tamil Nadu was the latest plant under the SAIL. Hindustan Steel works Construction Limited, Bharat coking Coal Limited and National Mineral development Corporation Limited are also under the control of SAIL.

PROBLEMS OF IRON AND STEEL INDUSTRY.

The industry faces many problems such as inefficiency, sickness, underutilisation of capacity, non-availability of raw materials ever increasing demand, labour unrest etc. Let us discuss some of the important problems of the industry.

1. Underutilisation of capacity

Throughout the period of planning, this industry was suffering from poor utilisation of its capacity. During Seventies, all the units were working far below the capacity. The average capacity utilisation during this decade was ranging between 64 per cent to 79 per cent only. Bhilai and TISCO were performing fairly well with capacity utilisation around 85 per cent, while other were below 60 per cent. During eighties, the average capacity utilisation of units was around 82 per cent. Only in recent years, there was some improvement in capacity utilization. The average has increased to 88 to 91 per cent. Capacity utilisation in TISCO reached the level of cent per cent and in 1994-95, it had reached to 107 per cent, while in SAIL plants, it reached to 92.5 per cent.

2. Gross Inefficiency

Almost all public sector units of this industry exhibited gross inefficiency with units losing continuously and also heavily due to heavy investment on social overheads poor labour relations, inefficient top management and also underutilisation of capacity. The top management often comprises of non-specilised and non-technical people. Appointment of officials of I.A.S. cadre at the top management level who re unequal to the task of providing the requisite managerial competence, resulted in very poor management and heavy losses. Those who had the competence, could not deliver goods, as they had to work under severe constrains like undue political interference, labour disputes etc.

3. Obsolete Technology

Some of the public sector steel plants are working with obsolete technology. In respect to blast furnace productivity, Indian blast furnaces are not even half efficient as that of steel plants in foreign countries. Many advanced countries, even some less advanced countries like Brazil have switched over to Oxygen Convertors, which is the best process, while India continues to use the old practices. Due to technological obsolescence, the energy consumption per tonne in India has been increasing, in addition to the increase in energy costs after oil

crisis of 1973. Many developed countries have been successful in cutting down energy consumption on Indian Iron and Steel company was around 16.8 gega calories per tonne of saleable steel, while it was less than 5 gega calories per tonne in Japan during the year 1984. Things have not improved.

4. Rise in Input Costs

In steel industry, cost of raw material accounts nearly 35 to 40 per cent of the total costs, as it is material intensive industry. As such, even a small increase in price of raw materials of the industry will have heavy impact on the total cost of production. Pig iron is the most important raw material for the steel industry and the prices of pig iron have risen considerably over the years. Adding to this, the cost of coal and power has also increased leading to heavy increase in input costs. As a result the steel units have to face difficulties.

5. Shortage of Raw Materials

The modern giant balst furnace needs high grade iron ore and good metallurgical coal. The industry is unable to get good quality coke and manganese-ore which are the principal raw materials next to iron-ore. Most of our manganese resources are of poor quality. Supply of adequate zinc for the continuous galvanizing line has also become a problem. Further, power shortages have affected the functioning of the steel plants adversely. For instance, inadequate power availability from Damodar Valley Corporation has affected the performance of SAIL.

6. Problem of Administered prices

The Government had been following a system of administered prices, and controlled distribution of steel among consumers. In the face of heavy demand for various items of steel materials, price control and distribution had led to heavy black-marketing and acute shortage of steel. Only the private distributors stood to gain and the main producers were denied of the high prices paid by the consumers. The prices for controlled and decontrolled categories of steel are fixed by the government through a Joint Committee in which the producers have very little say. The Committee is fixing the steel prices, but at the same time, it is not regulating the prices of raw materials. With effect from 1973, a revised pricing policy called differential *steel price policy* for steel products were introduced. By this, the prices of certain items of products were increased by the Government, but the premium in the market due to enhanced price was not allowed to accrue to the producers. This amount was asked to be transferred to a fund called *Steel Equalisation Fund* maintained by SAIL and withdrawals by the producers from it were permitted only in consultation of the Planning Commission and that too for purposes like plant rehabilitation and increasing production. This procedure was considered rather unjust by the producers. *With the introduction of New Industrial Policy in 1991, the Government had announced the abolition of price control from January 1992 onwards. It abolished all price equalisation schemes.*

7. Sickness of Mini-steel Plants

According to 'Report on Currency and Finance' of the Reserve Bank of India (1979-80, Vol.I), the mini-steel Plants were faced with sickness. According to the report, "The main problem faced by these units included short supply of inputs and sharp increase in prices of inputs like electrodes and scrap, inadequate power supply, constraint of working capital and poor management." In order to retrieve the mini-steel plants from sickness and make them viable, the Government provided the following facilities: *(i)* Liberal import of melting scrap and sponge iron without import duty; *(ii)* free diversification of production into all grades of carbon and alloy steels, including stainless steel; *(iii)* Installation of captive rolling mills; and *(iv)* addition of balancing facilities like continuous casting machines, heat treatment furnaces, etc. With the help, the mini-steel plants were rehabilitated and they are now working fairly well.

8. Problem of Metallurgical Coal

Indian Steel Plants are frequently faced with the problems of getting adequate quantities of good quality of metallurgical coal. With the expansion of the industry, the demand for coking coal is on the increase. India's supply of high grade coal for making coke for the smelting of iron is quite low. In addition to this, Indian coking coal has a high ash content because of the sedimentary nature of their origin. In fifties, the steel plants were designed for using coal with 17 per cent ash content. Over the years, as mining proceeded deeper and to lower seams, the ash content increased to 25 per cent. It has been estimated that every one per cent increase in ash content of coal brings down the production of blast furnaces by three per cent. Consequently, the steel units have to import coal from foreign countries with lesser ash content, to keep the blend at 15 per cent. The share of imported coal is increasing.

Besides the above stated problems, the Iron and Steel Industry faces the problem f limitations imposed by balance of payments, lack of transport to match the growing metallurgical traffic and the problem of wide and unwieldy front. Further, the demand for steel is growing year after year and the industry could not cope with the ever increasing demand for the product and hence we have to depend heavily on imports.

With all the problems and constraints, the Iron and Steel Industry of India is marching forward with increased production and capacity. This is only a logical corollary of any programme of rapid industrialisation f the developing economy. We know that steel is a basic material in the manufacture of metal products, electric machinery, transport equipment and textile and other machinery. According to Pandit Nehru, Steel is the symbol of strength of the economy and it portents the glory of developed India.

Modernisation Under SAIL

According to the Vice-chairman of Steel Authority of India Ltd., SAIL is progressing exceedingly well towards modernisation and the primary concern of SAIL is reducing the cost of production and improving the quality of products. The modernisation strategy is in two phases; the first completed under the earlier corporate plan, and the current phase under Corporate Plan 2005. It is through sharpening of this competitive edge that SAIL will be able to meet competition from other domestic producers, as well as from imports.

According to the Vice Chairman of SAIL, the specific strategy adopted is the modernisation programme at a cost of 3.7 billion dollars started in 1993 to ensure efficiency in the use of the raw materials, especially iron ore and coking coal. The Vice Chairman avers that SAIL is one of the lowest cost producers is the world as indicated in the Table 35.6.

Table 35.6

Comparative Cost of Production of Steel in 1994

(Dollars per ton)

Country	*Material* 1	*Labour* 2	*Operating* 1+2	*Financial* 3	*Total Cost* 1+2+3
U.S.	282	156	438	41	479
Japan	311	170	481	106	587
Germany	316	177	493	46	539
U.K.	293	101	394	21	415
South Korea	295	80	375	110	485
Brazil	304	69	373	70	443
C.I.S. Countries	153	34	187	15	202
SAIL	237	44	281	39	320

(*Source*: 'Survey of Indian Industry 1996': The Hindu, P. 241)

4. SUGAR INDUSTRY

The Sugar Industry in India is the best agro-based industry occupying a pre-eminent position in economy of the country. Next to textiles, it is the biggest industry employing about three lakh skilled and unskilled workers and 50 thousand technicians, besides providing employment to about 25 million cultivators. In addition to this, there are many thousands of people engaged in sugar trade, transport of sugar and cane and also in its byproducts such as alcohol, plastics, paper, synthetic rubber, fibre board, etc. The sugar industry in recent years has begun to export sugar, thus earning valuable foreign exchange. Besides, it provides Rs. 3,000 crores in the form of taxes to the exchequer.

With an invested capital of over Rs. 1,350 crores, sugar industry is one of the best organized industries in India which had a spectacular growth since 1930.

The industry received great impetus after the grant of protection in 1931. The number of factories went up from 31 in 1931-32 to 200 in 1967-68 and to 246 and 1974-75. At present there are 420 factories in India in different parts of the States. Of the 420 factories with an installed capacity of 15 million tonnes, only 400 are working; 120 in the private sector, 60 in the public sector and 220 in the cooperative sector.

The sugar industry is mostly oriented to a single material, namely sugar cane which forms 60 per cent of the total cost of production. Therefore, the industry is naturally conditioned by the availability of sugarcane and facilities of transporting raw materials to the sugar mill. Proximity to the raw material is essential as the sucrose content of the sugar cane will decrease soon after the cane is harvested and it is better to crush it at the earliest opportunity to have good recovery of sugar.

In India, almost all states enjoy the benefit of having sugar factories However, it is concentrated in large measure in the states of Maharashtra, Andhra Pradesh, Bihar, Karnataka, Uttar Pradesh and Tamil Nadu.

Indian sugar is of three forms – Jaggery, Khandasari and white sugar. The first two are prepared by indigenous methods while white sugar is directly produced in the factories.

Progress under Five-year Plans

The progress of any agro-based industry depends on the acreage, productivity and production of the raw material concerned and the effective processing of the same in modern factories to meet the local demand and also the export market. So also is the case with sugar.

The area under sugarcane has been nearly doubled during the planning period and production of sugarcane increased by three times. The productivity of cane in terms of yield of cane per acre has also doubled during the planning period.

At the commencement of planning in 1951-52, total area under sugarcane was 47,92,000 acres and the yield of cane per acre was 12.4 tonnes. By 1994-95, area under sugarcane increased to 91,12,000 acres with an yield of 25 tonnes per acre.

Before 1932, there were only 32 factories in India producing only 1.6 lakh tonnes of sugar. With the grant of protection in 1932, the production increased to nearly 10 lakh tonnes by 1937 operating factories.

At the commencement of planning the total production of sugar was just 1.1 million tonnes. By 1960-61, production of sugar went up to 3.0 million tonnes and by 1980-81, 5.1 million tonnes. By 1990-91 there was fantastic increase of sugar production to nearly 12 million tonnes. But during 1992-93 and 1993-94, there was steep fall in the production of sugar to 10.6 and 9.8 million tonnes respectively. The government had to import sugar during this period to meet the shortage. We know that this had resulted in scandal of 'Sugar Scam'.

Again in the year 1994-95, production of sugar increased to 14.6 million tonnes. The recovery of sugar which was 9.57 per cent of the weight of the sugarcane, increased gradually during the period of planning. It increased to 11 per cent in 1990-91, and by 1994-95 the recovery of sugar was 12 per cent.

Table 35.7 give particulars of increase in number of factories, increase in production and increase in recovery of sugar for some selected years during the planning period.

Table 35.7

Number of Factories, Production of sugar and Recovery particulars

Year	*Number of factories in operation*	*Total Sugar produced (Million tonnes)*	*Recovery of Sugar (% of cane)*
1951-52	140	1.4	9.57
1955-56	143	1.8	9.83
1960-61	174	3.0	9.74
1965-66	200	3.5	9.70
1970-71	215	3.7	9.79
1973-74	229	3.9	9.34
1980-81	315	5.1	9.98
1984-85	338	6.1	10.28
1990-91	341	11.9	11.21
1994-95	400	14.6	12.00
1997-98	420	12.7	11.8
2001-02	420	16.1	11.9

(*Source:* Cooperative Sugar & Economic Survey)

Production of sugar statewise in 2014-15 is given in the Table below. Nearly 20 states in India are producing sugar. However in terms of productivity there is a wide gap among these producing states.

State	*Area (in ha)*	*Production (in '000 tonners)*	*Productivity (tones/ha)*
Andhra Pradesh	200	115533	77.7
Assam	25	935	37.4
Bihar	108	4352	40.3
Chhattisgarh	10	29	29.0
Gujarat	197	14304	72.6
Haryana	115	8050	70.0
Jharkhand	6	150	25.0

Karnataka	210	17357	82.7
Kerala	1	108	108.0
Madhya Pradesh	96	4075	42.4
Maharashtra	770	57042	74.1
Orissa	18	1117	62.1
Punjab	105	6300	60.0
Rajesthan	8	475	59.4
Tamil Nadu	323	35182	108.9
Uttar Pradesh	2058	120140	58.4
Uttarakhand	124	7686	62.0
West Bengal	20	1300	65.0

In Table given below, production of sugar in India since 2008-09 till 2014-15 is given. It could be noted that though the number of factories in operation increased only by about 48, the cane acreage has increased substantially during this period along with the production of sugar which has gone up by more than 800 lakh tons.

Particulars	*2008-09*	*2009-10*	*2010-11*	*2011-12*	*2012-13*	*2013-14*	*2014-15*
No. of factiones operation	488	490	507	529	526	509	538
Cane acreage (000 Hectares)	4415	4175	4885	5100	5279	5341	5307
Sugarcane Production (Lakh Tons)	2850	2923	3424	3538	3544	3456	3668
Molasses Production (000 Tons)	6542	8400	10970	11824	11744	10882	12482

Sugar Policy

The sugar policy adopted by the Government of India had been very bitter and also erratic. The production trends in sugar, exhibiting alternating periods of prosperity and scarcity with wide divergence in prices show that all is not well with the policy adopted by the Government. Apart from its inherent weakness of being an agro-based industry susceptible to the vagaries of monsoon and weather, the *adhoc* policies of the Government towards this industry have a very adverse effect on the production, distribution and pricing of sugar.

Sugar Licensing Policy

The sugar economy in India is highly controlled and the sugar factories and under compulsory licensing. The Government issues periodical guidelines for

licensing new sugar factories and also for expansion of existing ones. The guidelines given in 1990 contemplates as follows: (i) Licences for new sugar factories would be given only if there is no sugar factory within a radius of 15 kilometres in that area. (ii) The factory should have a minimum crushing capacity of 2,500 tonnes of cane per day. (iii) New licences would be issued on the condition that cane prices would be payable on the basis of sucrose content of the sugarcane. (iv) preference to start factories will be given only in Cooperative Sector or Public Sector rather than private sector. (v) Licenses would be given liberally for the manufacture of industrial alcohol through the conversion of molasses with a view to increase production of industrial alcohol for export.

Sugar Pricing Policy

The sugarcane pricing policy has been affected by several factors. There are two prices. The *Statutory Minimum Prices (SMP)* for sugarcane is fixed by the central Government on the basis of cost of production of sugarcane. Another price is the *State Advised Price (SAP)* fixed by the state Government taking into account the specific recoveries and conditions in that particular State. SAP has become a highly politicised issue and it has become quite arbitrary, having no bearing on the cost of production of sugarcane. As a result, the difference between SAP is ever widening. In the year 1993-94, the SMP was fixed at Rs. 34.50 per quintal. The SAP of States varied from Rs. 36 per quintal to Rs. 62.

Regarding *Sugar Sale Policy*, the Government insists that the existing sugar factories should supply 40 per cent of their production as 'Levy Sugar' for public distribution system and the price is fixed below the market price. The remaining 60 per cent of production can be sold in the open market for which the price will be not be controlled. However the market supplies of free sale sugar are regulated by Government by fixing monthly release quota so as to maintain price stability. Prices of levy sugar are fixed zone-wise, on the basis of SMP of sugarcane plus conversion costs as recommended by the Bureau of Industrial Costs and Prices. Incentives are given to the nearly started factories by allowing them to have 100 per cent open market sale of sugar, without levy sugar, for a period of 8 years.

Sugar Development Fund

Sugar Development Fund was set up the Act of parliament in the year 1982 which consists of money transferred from the proceeds of sugar cess imposed on sugar production. The fund is utilised for advancing loans for rehabilitation and modernisation of sugar industry and also for development of sugarcane in the factory areas. The Fund is also utilised for building up and maintenance of buffer stocks of sugar for stabilising is price. The total accumulation to the sugar development Fund amounted to Rs. 900 crores and a sum of Rs. 490 crores had been sanctioned as loans for modernisation and rehabilitation of sugar factories.

PROBLEMS OF SUGAR INDUSTRY

The sugar industry in India faces many problems. The main problems are competition from gur production, low yield of sugarcane, short crushing season, low milling efficiency, defective structure of the industry, high cost and price of sugar, failure of Government to follow a consistent policy, obsolete machinery, mounting losses and the problem of by-products. Let us briefly study these problems:

1. Competition from Gur and Khandsari Units: Indian sugar is produced in three forms, namely Gur (Jaggery), Khandsari and white sugar. The first two, i.e., Gur and Khandsari are prepared by indigenous methods with little capital and low overhead costs. White sugar is produced in the modern sugar Factories with heavy capital investment and other overheads. Since the cost of production by gur and Khandsari units are low, they are able to pay comparatively high prices to sugarcane and corner the supplies of sugarcane. Attracted by good prices received from gur and khand units, the farmers prefer selling their sugarcane to indigenous units, rather than factories. Thus, the sugarcane gets diverted from modern sugar mills to gur khand units.

The sharp decline in sugar production in some years is attributed to the diversion of sugarcane to gur and khand units. This diversion was maximum in Maharashtra, U.P. and Bihar. With high prices for gur and khandasari, the small producers in the indigenous unorganised sector sere able to pay attractive prices to cane growers. Further, the cost of production in these indigenous units is much less than the sugar mills in the organized sector. While sugar mills have to pay around Rs. 2,000 to Rs. 2,500 per workers, the indigenous gur and khand units can get away with Rs. 500/- to 600/- per worker, employing minimum workers. This diversion of sugarcane to gur and khand units during the years 1992, 1993 and 1994 was enormous and the production of factory white sugar decreased by 3 million tonnes. There was acute shortage of sugar in 1993-94. The domestic demand stood at 12 million tonnes and export commitment stood at 4.11 lakh tonnes to U.S.A., Nepal and European Community. As against this requirement of 12.5 million tonnes, the actual production stood at 9.8 million tones. Hence, the Government had to import sugar from foreign countries. Erratic production trends in sugar factories and shortage of sugar are attributed only to the diversion of sugarcane of gur and khand units. Further, diversion to indigenous units is a loss to the nation, as the recovery of sugar in country indigenous units is only 5 to 6 per cent, while in factories it is 11 to 12 per cent. This results in a loss of about 40 per cent of the recoverable sugar worth Rs. 1000 crores annually. Moreover, in indigenous units, the bagasse is burnt out as fuel, while in factories this by-product is sold to Paper Mills for manufacture of cardboards and paper. Thus the country stands to lose on several counts due to the diversion of cane from factories. The government could no do anything to control gur and khand prices. It is therefore necessary that price competition

among sugar, gur and khand be avoided and the Government should chalk out a combined allocation policy of sugarcane between indigenous units and modern factory units.

2. *Mounting losses and accumulation of arrears of sugarcane dues to the farmers:* Sugarcane prices have been increasing year after and he cost of production of sugar is mounting up, since 60 per cent of the cost of production of sugar is accounted by the raw material, *i.e.*, sugarcane.

However, the realisation from the sale of sugar is not rising adequately to meet the cost of paying increased prices to sugarcane and other incidentals, including overhead charges. This results in heavy losses to sugar mills. It has been estimated that the organised sugar factories in the country incurred a loss of Rs. 600 crores in 1990-91 and more than Rs. 700 crores in 1991-92. As a result of this, most of the sugar factories could not pay the sugarcane price to farmers and the arrears of sugarcane due to farmers are mounting up.

3. *Low Yield of Sugarcane:* Sugarcane productivity is very low in India, perhaps lowest in the world with only 17.1 tons of cane per acre whereas in Hawaii it is 80.4 tons of sugarcane per acre. The climatic conditions of India cannot be the best suited to sugarcane. Unless adequate irrigational facilities, manuring, and the proper variety are provided, the productivity will not be improved. This low yield of sugarcane has created problems of shortage supply to the industries as there is keen competition from khandasari and gur manufacturing units.

4. *Short Crushing Season:* Another problem is the short crushing season of the industry which makes the mills remain idle for more than 20 days in a year. The crushing season starts as soon as the harvest of sugarcane commences and it lasts for about 100 days only. This is one of the reasons for high cost of production. Unless different varieties of sugar cane, ripening in difference seasons are evolved the mills cannot be getting continuous supply throughout the year.

5. *Low Milling Efficiency:* The milling efficiency and recovery of sugar is very poor in Indian mills. The average percentage recovery of Indian mills is only 10 producing only 1.8 tons of sugar out of sugarcane produced in one acre. In Indonesia the percentage recovery is 12.5 producing 4.4 tons of sugar out of the cane in one acre. In Hawaii, the percentage recovery is 13.2 producing 10 tons of sugar from the sugarcane production in one acre. The low milling capacity is due to obsolete and old machinery requiring replacement. The industry requires shows nearly Rs. 100 crores for modernization. The percentage of recovery shows signs of improvement, in recent years.

6. *Defective Structure of the Industry:* In the case of the sugar industry, there is a wide gap between the manufacturing unit and the production of sugarcane, so to say, divorce between agriculture and manufacture. The manufacturing units

do not have the plantations of their own, and as such do not have any control over the quantity and quality of the sugarcane grown by independent farmers. Hence there will not be any co-ordination between the Farm and the factory to ensure adequate supplies and the proper quality of sugarcane. Another structural defect in North India is the wrong distribution of cane supply. In U.P. and Bihar, in certain regions there are too many mills competing in the procurement of sugarcane of that area whereas in some other regions where there will be abundant supply of cane the factories will be lesser in number. Consequently there will be shortage of supply in one region and excess supply in another region. This is being rectified by zoning system in which areas are reserved for each sugar factory.

7. *High Cost and Price of Sugar:* Inefficient and outmoded machinery, low productivity, poor recovery in crushing transport cost, high taxation have put the cost of production of sugar at a very high level and Indian sugar is sold at a very high price though in the international market sugar is priced at 0.66 per kilo. The existence of control in production and movement of sugar and the high taxation and considered as factors responsible for the high price of sugar in India.

8. *The Problems of By-Products:* The important by-products of sugar industry are 'bagasse' and 'molasses', which are not properly utilized. The Bagasse is utilized as fuel and molasses creates health hazards. Supplementary industries utilizing bagasse as paper, card board, etc., and utilizing molasses in the manufacture of alcohol, fertilizer, cattle feed, etc.,

Defects pointed out by the South Indian Sugar Mills Association

According to the South Sugar Mills Association, the sugar industry in the South is facing a crisis and if the crisis continues the mills may have to be closed down. According to them the Southern Sugar Mills make 9 lakh tonnes of sugar annually; 22 per cent of the country's production-worth about Rs. 120 crores. On this, the Central Government gets about Rs. 36 crores. On this, the Central Government get about Rs. 8 crores in cane cess, purchase tax, etc. Consequently the sugar mills lose heavily due to high cost of production varying from Rs. 114 to Rs. 156 per bag.

The Association indicates certain bitter facts about sugar. (1) In Southern States, the mills are losing over Rs. 11 per bag of sugar on an average; (2) Recovery of sugar from cane is low in the South; in Tamil Nadu it is as low as 7.9 per cent or 79 kgs. of sugar per ton of cane against 9.4 per cent or 94 kgs. of sugar per tonne of cane, assumed by Government for fixing cane prices. Controlled sugar prices is also based on this very assumption; (3) The Government release orders are not equitable; Maharashtra, for example, produces 10 lakh tons of sugar a year, i.e., more than all Southern States put together, and holds no stock of previous year's production, where as Southern mills hold 15 per cent of previous year's stock and the entire current year's production and thereby suffer most due to stock accumulation and unlifted allotment; (4) excise rates have skyrocketed up to 1,400 per cent since the

first imposition; (5) in 1965, the sugar Enquiry Commission recommended that a buffer stock should be built up. In 1969, the Tariff Commission also endorsed this. But the Government had not acted on this; (6) The Government had not heeded to Tariff Commission recommendations in fixing sugar price. It has also ignored the Reserve Bank of India's evaluation is 1967; showing poorest earnings of all by the sugar industry; (7) The implementation of the Sugar Wage Board awards increased the costs still further.

Apart from the above stated problems of the industry, the Government has not been following a consistent long-term policy in sugar. It deviates the policy between complete control, partial control and complete decontrol, causing uncertainties and also confusion. The Government adopted the partial control system with dual pricing in August 1967. In 1967-68, the sugar factories were required to supply 60 per cent of output of government at 'levy' or control prices, while the remaining output could be sold in the market at market price. The proportion of levy sugar was later raised to 65 per cent. The Janata Government removed all controls in 1978. But with the return of the Congress (I) Government to power, again partial controls and dual pricing were adopted. Now, as we had studied already, the producers have to supply 40 per cent of their production towards 'levy' sugar. Thus, the policy of the government is not consistent with a long term objective, and it is mere adhoc measures, every now and then. Regarding the prices of sugarcane and also the sale of sugar, we had already studied the problems connected with them. The whole scheme is neither in the interest of the industry or the economy or the consumer.

Only recently, the Government has announced its intention to review this policy with the objective of making sugar industry globally competitive and generating export surplus, while ensuring adequate supplies for domestic consumption. As a preliminary step the Government in 1993 (June) abolished price and distribution controls on molasses and also announced incentives to encourage starting of sugar mills. India is the fourth major sugar producing country of the world, the first three are Russia, Brazil and Cuba. As an agro-based industry, Indian Sugar industry has a bright future.

5. Cement Industry

Cement is a key factor in economic development in India, it has tremendous potential for development, as limestone of good quality is found throughout the country. The real beginning for the industry was made in the year 1914 when the Indian Cement Company Limited manufactured cement at Porbunder in Gujarat. Since then, the industry has recorded continuous growth and now India stands as the seventh largest cement producer in the world. At present, there are 20 large cement units and 140 mini-cement plants with a total installed capacity of 140 million tonnes, but producing only 107 million tonnes. It employs over 2 lakh persons.

The performance of the industry during the Planning period is given in Table 35.8.

Table 35.8

Progress of Cement Industry during Planning Period

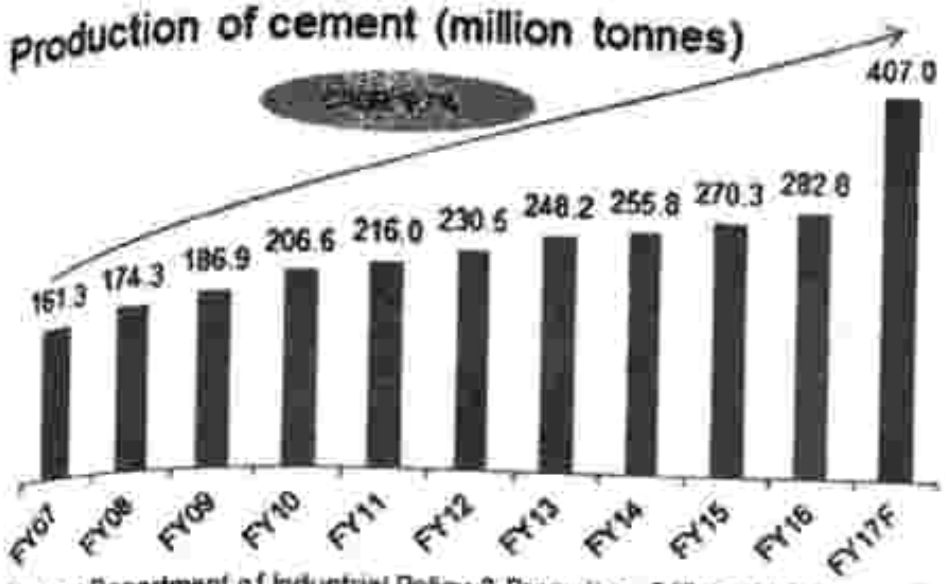
Year	*Installed Capacity (Million tonnes)*	*Production (in Million tonnes*	*Percentage of Capacity utilisation*
1950-51	3.2	2.6	82
1960-61	9.5	8.0	85
1970-71	17.5	14.5	83
1980-81	27.0	18.0	67
1990-91	64.0	48.8	76
1994-95	82.7	62.4	75
1997-98	106.7	83.2	78
2001-02	140.0	107.0	76.5

At the commencement of planning, there were 21 factories with an annual capacity of 3.2 million tonnes. The Government had a complete control on the production, distribution and price of cement and as such the growth of the industry was rather constricted. In 1977, the Government announced that 12 per cent post-tax return on net worth was fair enough and retention prices would be fixed to ensure it. This provided the required incentive for the industry and soon after the industry gained momentum with good investments. But, the real impetus was provided with partial decontrol in the year 1982. Under this policy, the cement units were required to give up 66.6 per cent of their installed capacity production as 'Levy Cement' at controlled price and the balance allowed to be sold at the market price in open market.

This was intended to eliminate black-marketing in cement and to stabilise the open market price. The Government in due course eliminated the partial control and by 1989 liquidated levy system. Thus, the industry passed from a phase of total control to partial control and then total decontrol. This gave the necessary initiative to the industry which developed in leaps and bounds. We can see in the Table 34.8 that the installed capacity of the industry had gone up sharply from 27 million tonnes in 1980-81 to 64 million tonnes in 1990-91 (partial decontrol phase) and then to 82.7 million tonnes in 1994-95 (fully decontrol phase) and production had increased from 18 million tonnes in 1980-81 to 62.4 million tonnes in 1994-95. By 2001-02, the installed capacity had increased to 140 million tonnes and production 107 million tonnes.

Cement production increased at a CAGR of 6.44 per cent to 282.79 million tonnes over FY07–16. As per the 12th Five Year Plan, production is expected to

reach 407 million tonnes by FY17. In August 2016, cement production in the country increased by 3.1 per cent in comparison to 1.4 per cent in July 2016.



Source: Department of Industrial Policy & Promotion, Office of the Economic Advisor, TechSci Research, F - Forecast, CAGR – Compound Annual Growth Rate

Mini-Cement Plant: A mini-cement plant is one which has a capacity ranging between 50 tonnes to 200 tonnes a day. The Government had permitted starting of mini-cement plants with a view to exploit limestone reserves in different remote and inaccessible parts of the country. Most of these mini-cement plants are located in Karnataka, Andhra Pradesh, Madhya Pradesh, Rajastan and Gujarat.

Regional Distribution: The industry is well diversified over all the states of India. Since the manufacture of cement requires weight losing materials like limestone, clay and gypsum, the industry has a tendency to be located near availability of raw materials to avoid transport cost. Capacity-wise, the western region dominates the rest of the country with 40.5 per cent, followed by the southern region 28.9 per cent northern region 20.6 per cent and eastern region only 10 per cent. Since the industry is location-specific, it has resulted in formation of clusters of companies at suitable limestone reserves.

Problems of Cement Industry

1. Heavy burden of tariff: The industry is facing a heavy burden of high excise duties, sales tax, royalties on limestone, coal etc. The effective burden on cement amounts to as much as 35 per cent of the retail price of cement and 47 per cent of the ex-factory price excluding excise, sales tax and freight. This is much

2. Low capacity utilisation: The industry is not working to the fullest capacity. During the planning period, capacity utilisation has dwindled from 82 per cent to 75 per cent. Consequently, there is short-fall in production, while the demand for cement is growing at the rate of 9 to 10 per cent annum. The reasons for under utilisation of capacity and short-fall in production are as follows: (i) Acute power shortage in cement producing states and power-cuts ranging from 25 to 75 per cent; (ii) Shortage of coal; (iii) Limited availability of furnace oil; (v) Non-availability of wagons for transport etc.

3. Cost escalation and rigid prices: As in the case of other industries, the production cost of cement is escalating year after year, but the price of cement has been kept rigid. Cement producers complain that while other building materials like steel etc., are allowed to increase the whole prices to the extent of 155 per cent between 1982-83 and 1993-94, the price of cement was allowed to be increased only by 62 per cent. As a result, the industry had to lose heavily. It was estimated that in the case of levy cement, only 37 per cent of the levy price went to the manufactures and the balance 63 per cent was mopped up by the Government in the form of excise duty, sales tax, railway fright etc.

4. Increasing investment costs and declining profits: The investment cost in cement industry is soaring up while the profits of the industry are declining. It has been estimated that the investment cost per tonne of installed capacity of a million tonne per annum cement plant was Rs. 650/- during the Sixth Plan period. During the Seventh Plan period, it was estimated at Rs. 1,500 per tonne. Investment costs have more than doubled and that too while the profits are declining.

5. Cement Technology: More than 50 per cent of the cement plants were employing the uneconomical wet process. The technology adopted is considered to be very obsolete, resulting in wastage of coal and electricity. In financial terms, it works out to nearly Rs. 200 crores per year. Only recently, the technology is being changed gradually from wet to modern, fuel efficient dry process.

Of late, cement industry has entered the ambitious phase of modernisation and expansion programme which include energy conservation measures, adoption of latest technologies such as pre-heaters and pre-calcinators, installation of pollution control devises and setting up captive power units etc.

The Government has been helping the cement industry in several ways, both directly and indirectly. The Government has undertaken infrastructural developments with high priority and also encouraging housing sector, by which the industry will have a demand push. As a matter of fact, the Ninth Plan (1997-2002) targeted only 135 million tonnes in the production capacity of the industry, whereas, the industry responded exceedingly well so as to exceed the target to the level of 140 million tonnes. But, actual production is only far less than the installed capacities due to above said problems. The Tenth Plan projects

an increase in the capacity of this industry from the present 140 million tonnes to 202 million tonnes, at a total investment of Rs. 17,600 crores.

The cement industry in India has large potentialities to develop. Several industrial houses are diversifying their activities in the production of cement. Larsen and Tourbo, Delhi Cloth Mills (DCM), Coromandal Fertilizers, Raymond Woolen Mills, J.K. Synthetics and Birla group concerns have also entered the field of cement production.

6. PETROLEUM REFINING INDUSTRY

The importance of petroleum for a developing economy like India need not be elaborated, as it makes the wheels of development move. In India, though the oil resources are very much limited, we depend too much on this source of energy, and as a matter of fact 50 per cent of the demand for commercial energy of the economy is from petroleum. The development process of the Indian economy can be well stated as oil-intensive, as we consume 0.67 Kg of oil per incremental unit of GDP, whereas U.K. consumes only 0.5 Kg and France only 0.11 Kg and Philippines 0.31 Kg.

The consumption of petroleum in India is fast increasing and the demand is around 60 million tonnes a year, at present. But, the domestic crude production is only 39 million tonnes (1996-97), while the total refining capacity is rated at 56 million tonnes a year. The country has to depend on imports of oil nearly upto 50 per cent of her requirements and the oil import bill every year is causing heavy strain on the balance of payments position and the Finance Ministers have no alternative except to hike the price of petroleum products every now and then.

Production of Crude Oil

Before the commencement of planning in India, crude oil production was barely 0.25 million tonnes. It increased to 0.5 million tonnes in 1960-61 and 10.5 million tonnes in 1980-81. With the findings of oil in the Bombay High off-shore region, the production of crude oil increased appreciably to 29 million tonnes in 1984-85. The year 1994-95 registered a remarkable output of 32.2 million tonnes due to new off-shore oil structures. The year 1995-96 registered another five more million tonnes, making an output of 37.45 million tonnes. The target for the terminal year of the Eighth Plan (1996-97) has been fixed at 38.09 million tonnes. It is expected that this target will be exceeded slightly, as the entrepreneurs in the private sector are trying to fully exploit the potential of the Panna and Neelam structures in the western off-shore area.

Petroleum Refining Industry

Petroleum refining industry made remarkable progress during the planning period. The total refining capacity which stood at 0.25 million tonnes per annum at the commencement of First Plan, increased to 31.8 million tonnes in 1980. In 1991-92, it increased to 51.85 million tonnes and by 1994-95, the refining capacity reached the level of 56.40 million tonnes.

At present there are 12 refineries, all in the public sector. Refineries located at Guwahati, Barauni, Koyali, Haldia, Digboi and Mathura are owned by the Indian Oil Corporation (IOC) which was set up on September 1, 1964 by amalgamating the Indian Refineries Ltd., and the Indian Oil Company Ltd. The refineries situated at Cochin and Madras are joint sector companies. Of the other four refineries, two are at Bombay, one at Visakapatnam and one at Bongaigaon. The Burmah Shell Refinery at Trombay and Caltex Refinery at Visakapatnam were taken over by the Government in 1976. The Burmah shell refinery was renamed as Bharat Petroleum Corporation Ltd., (BPCL); and the Caltex Refinery was amalgamated with the Hindustan Petroleum Corporation Ltd. (HPCL) in May, 1978.

Table 35.9 gives particulars of refining capacity of crude oil in India, in 1991-92 and 1994-95.

Table 35.9

Refinery Capacity in India 1991-92 and 1994-95

Refineries	*1991-92*	*1994-95*
Indian Oil Corporation		
Guwahati ...	0.85	1.00
Barauni ...	3.30	3.30
Koyali (Gujarat) ...	9.50	9.50
Haldia ...	2.75	2.75
Mathura ...	7.50	7.50
Digboi ...	0.50	0.50
Madras Refineries Ltd., Madras (including Narimanam) ...	5.60	7.00
Cochin Refineries Ltd., Cochin ...	4.50	4.50
Bharat Petroleum Corporation		
Bombay ...	6.00	6.00
Hindustan Petroleum Corporation		
Bombay ...	5.50	5.50
Visakapatnam ...	4.50	4.50
Bongaigaon Refineries ...	1.35	1.35
Total ...	51.85	56.40

(*Source:* Survey of Indian Industry, The Hindu of different years)

The total refining capacity increased to 65.13 million tonnes in the year 1997-98. This was far from adequate, as by the year 2002-2003, the demand for petroleum has exceeded 110 million tonnes. Hence, the Government approved

the expansion plans for the existing refineries and also cleared proposals for setting up of new refineries.

The huge refinery of Reliance petroleum with the initial capacity of 15 million tonnes and Essar Oil Project with 9 million tonnes have already started working in Gujarat and they have also expanded their production capacities. Refinery projects in Private sector with initial total capacity of 58.5 million tonnes have started working, though some have teething troubles. The Table 35.10 gives particulars of projects under the private sector.

Table 35.10

Refinery projects proposed in Private Sector and their capacities

Name of the Private Secter company taking up the Project	*Location*	*Proposed Refining Capacity (M.T)*
Reliance Petroleum	Jamnagar, Gujarat	15.0
International Petro	Parmar, Surat, Gujarat	5.0
Ashok Leyland (Hinduja)	Daitari, Orissa	6.0
Essar Petro	Vadinagar, Gujarat	9.0
Black Gold (Dalta)	Vizag, A.P.	2.5
Petrodyne	Karaikkal, Pondy	1.0
Jindal Ferro-Alloys	Vizag, A.P.	6.0
Portmoody-TIDCO	Tuticorin, Tamil Nadu	2.0
Aban Lloyd Chiles	Tuticorin, Tamil Nadu	3.0
Soros Fund Management	Haldia, Bengal	6.0
Meplac Udyog	Haldia, Bengal	3.0
Total Capacity:	Million tonnes per annum	58.5

(*Source:* Survey of Industry 1996: The Hindu P. 164)

Production

Domestic annual production of crude oil has been at around 37-38 million tonnes in the last five years. During April-December 2015, domestic production of crude oil was 27.9 MMT which is 0.8 per cent less than production of 28.2 MMT during the same period of the previous year. Gas production during April-December 2015 was 24.7 BCM against 25.397 BCM during the corresponding period of 2014-15, showing a decline of 2.8 per cent. Some of the issues relating to the sector are discussed in Box 6.4. 6.56 Domestic production is supplemented by oil and gas assets acquired abroad. During April-December 2015, production of crude oil and natural gas from assets abroad was 5.5 MMT and 3.3 BCM respectively.

Exploration of New Oil Finds

Expansion of refining capacity of oil should go hand-in-hand with the expansion of output of crude oil; otherwise we may have to import crude for purposes of refining, as we are now doing. Apart from the Bombay High off-shore discoveries in the early 1970s, the other promising areas have been the Krishna Godavari basin and to a much smaller extent, the Cauvery basin. It is estimated that the existing known reserves of crude oil sediments would be only 760 million tonnes. Hence, there is the crying need for further exploration to locate more recoverable reserves of crude oil. The earlier policy of the Government had been to retain the discovered oil fields and exploration of the same, as the exclusive preserve of the Oil and Natural Gas Commission (ONGC) and Oil India, and lease out only the unexplored regions to the foreign oil companies. But, the foreign oil companies prefer to restrict their attention to the areas where oil has already been discovered, as they would promise them attractive returns for their investments, instead of entering virgin areas in the Ganga valley an the Himalayan foothills. The dismal response to the policy of the Government made the Government to open up the existing oil producing areas also for exploration by the foreign and Indian private sector.

Under the government's Policy of opening the oil exploration sector to private sector investment, offers had been invited for the fourth, fifth, sixth, seventh and eighth rounds of bidding since 1991. Contracts for development of oil fields have been considered for companies and consortium, such as Enron, U.S. Reliance Industries, Command Petroleum, Australia – Videocon India, Marubeni Japan etc. in the regions of mid and south of Tapti, Mukta and Panna near Bombay off-shore; and also Ravva in Krishna Godavari off shore and Kharsang in Arunachal Pradesh. Similarly contracts have been considered for the consortium of Hindustan Oil, exploration Company of India and Mafatal Industries of India in Krishna Godavari and Gondawan onshore region. The consortium of HOEC of India, Vaalco Energy Inc., and Tata Petrodyne of India has been given cauvery offshore for exploration. Contract for the small-sized field at Bhandut, Cambay, Matar, Sabarmati, and Hazira were signed in the later half of 1994 between the Government of India, Gujarat State Petrochemical Corporation (India) Ltd., and Nikko Resources of Canada.

The explorations of new oil fields should prove successful. Otherwise, we have to continue the import of oil from foreign countries. The value of import of oil was Rs. 14,838 crores in 1994-95 and Rs. 22,000 crores is 1995-96. The oil bill is increasing uncomfortably since 1996-97.

Review Questions

Section - A

1. When was first cotton textile mill started in India?
2. What are the three sectoral components of Cotton Textiles in India?
3. What was the percentage share of mill sector production of textiles in 2000-01?
4. What do you mean by decentralised sector in cotton industry in India?
5. What is N.T.C.? Why was it started?
6. In which State Jute industry is concentrated in India?
7. Expand the expression TISCO.
8. Expand the expression IISCO. When was this nationalised?
9. State the Iron & Steel projects started in public sector in II Plan.
10. What do you mean by SAIL? When was it started?
11. What are the by-products of sugar production?
12. Mention three places where you have cement factories in India.

Section - B

1. What are the exact problems of textile mills of South India?
2. What are the objectives of Textile Policy of 1985?
3. Write a note on the problems of jute industry.
4. What are the objectives of SAIL?
5. Briefly State the problem of metallurgical coal.
6. Write a note on production of crude oil in India.
7. Write a note on Competition of Gur Industry?
8. What do you mean by Mini Steel Plants?
9. What are the problems of cement Industry?
10. Write a note on export of textile garments.

Section - C

1. Discuss the Textile Policy of the Government in detail.
2. What are the Problems facing the Cotton Textile Industry?
3. Trace the genesis and growth of Iron & Steel industry in India.
4. Discuss about the role of SAIL in the progress of steel industry in India.
5. What are the main problems of sugar industry? How best these problems could be rectified?
6. What are the problems of Iron and Steel Industry?
7. Discuss about the progress of Petroleum Refining and exploration of oil fields in India.
8. Assess the progress of Iron & Steel Industry in India during the Planning period.

Chapter 36

DR. Amutha

(1)

Unit IV

Small-Scale and Cottage Industries & Technology

EDWARD THORNTON in his *History of British Empire in India* remarks, "Ere yet pyraminds looked down upon the valley of the Nile, when Greece and Italy, those cradles of European civilization, nursed only tenants of wilderness, India was the seat of the wealth and grandeur". At a time when Europe was inhabited by uncivilized tribes, India was famous for the wealth of her rulers and for her small-scale and cottage industries. Even under the rule of East India Company there is ample proof to show the excellence of the products of her small industries. In 1787, exports of Dacca muslin to England amounted to Rs.30 lakhs. The Indian handicrafts and cottage industries thrived in the past under the patronage of royal families and aristocracies and also due to their association with religious sentiments. But, with the decline of royal families and diminishing religious sentiments and fervour, many of the handicrafts and small industries have disappeared from the Indian scene.

Definition and Meaning of Small-Scale and Cottage Industries

According to definition of the Fiscal Commission in 1950 "A cottage industry is one which is carried on wholly or primarily with the help of the members of the family, either as a whole or a part-time occupation. A small-scale industry, on the other hand, is one which is operated mainly with hired labour, usually 10 to 50 hands." According to this definition, the Industries (Development and Regulation) Act of 1951 gave exemption to units employing less than 50 workers *with power*, and less the 100 workers *without power*, from registration. This exempted sector has come to be known as *Small-Scale Sector*. But now, the small-scale sector is identified in terms of capital investment. All industrial units with a capital investments of not more than Rs. 60 lakhs are treated as small-scale units. Investment are considered only on plant and machinery for this purpose. In the case of ancillary industries, *i.e.*, units, the limit of capital investment is Rs. 75 lakhs. According to the notification issued by the Government in pursuance of the Industrial Policy of 1990, the investment limit of small-scale industry has been raised. For those small-scale units which will export 30 per cent to their output by the third year of starting production will have an incentive that

their investment limit is further raised to Rs. 75 lakhs. For ancillary units, investment limit has been raised from Rs. 45 lakhs to Rs. 75 lakhs. According to the modified definition, an ancillary unit is one which sells not less than 50 per cent of its manufactures of one or more industrial units. There is also the "Tiny Sector" units with an investment of upto Rs. 5 lakhs. As per this classification, all other industries with capital investment higher than specified for small units are large-industries with capital investment higher than specified for small units are large-scale industries. 95 per cent of the small-scale units are within the investment range of Rs. 5 lakhs.

In January 1997, the Government of India again enhanced the investment ceilings in plant and machinery for small-scale industries and ancillary units, from Rs. 60 lakhs and 75 lakhs to Rs. 3 crores; and for Tiny Sector it was enhanced from Rs. 5 lakhs to Rs. 25 lakhs. Thus, this investment ceiling of SSI units would also apply to ancillary and export oriented units, for which no separate limit has been prescribed.

Again the Government, in the year 2000 revised the investment limit and reduced the investment limit on plant and machinery from Rs. 3 crores to Rs. 1 crore, but the limit for investment in Tiny Units has been retained at Rs. 25 lakhs.

Thus, the Government has been changing the criterion for identifying the small-scale units, Tiny Sector and Large Scale industries.

As of now, in India, there is a three-tier definition of small scale Industries, often referred to as SSI sector. An industrial undertaking in which the investment in fixed assets in plant and machinery, whether held on ownership terms, on lease, or hire purchase, does not exceed Rs. 1 crore, is defined as SSI unit; for the Tiny Sector, it is 25 lakhs. Units between investment size of Rs. 1 crore and Rs. 10 crores are defined as *Medium Scale Units*.

Criteria for identifying small and medium scale units are not very rigid, as it varies from country to country. In most of the countries, it is defined in terms of a cut-off employment size. In US it is 99, in Germany it is 500, in Japan 300 and in Malaysia 75 etc. In addition to these criteria, fixed assets, paid-up capital etc., have also been used. According to the MSMED Act 2006, the definition of MSME has been revised as below.

Definition of MSMEs in India (As Per Micro, Small & Medium Enterprises Development (MSMED) Act, 2006)

Manufacturing Enterprises – Investment in Plant & Machinery		
Description	***INR***	***USD ($)***
Micro Enterprises	upto Rs. 25 Lakh	upto $ 62,500
Small Enterprises	above Rs. 25 Lakh & upto Rs. 5 Crore	above $ 62,500 & upto $ 1.25 million
Medium Enterprises	above Rs. 5 Crore & upto Rs. 10 Crore	above $ 1.25 million & upto $ 2.5 million

Small scale industries can be divided into two types, namely, *cottage industries* and *small scale enterprises*. In the case of cottage industries, the process of production will be only through manual labour and little or no machinery will be used whereas in small enterprises machinery will be used. Cottage industries are more or less household industries depending on local resources, catering only to a limited local market. Small enterprises will be more or less, mini-factories depending on resources coming from outside and more often depending on a large scale industry for the supply of semifinished products. These will have wider markets.

Classification

From the standpoint of survival after the advent of factory system, cottage industries may be classified into four groups:

(1) Those which have succumbed to the competition of factory, e.g., hand-spinning, though revived to some extent under the Khadi movement. (2) Those whose products are competing with machine-made goods and which are in state of suspended animation. (3) Those which do not suffer from inherent weakness and which are sheltered because of their connection with agriculture, and (4) Village and urban industries producing artistic products which do not compete with factory products.

From the standpoint of occupation provided, they may be classified as follows:

1. Industries providing supplementary occupation to agriculture, e.g., handloom weaving, basket making, bidi-making and sericulture. (2) Industries providing wholetime occupation, e.g., pottery blacksmithy, carpentry, handloom weaving by professionals, tanning and cart making, etc. (3) Urban industries providing part or wholetime occupation, e.g., gold and silver thread, wood and ivory carving, brass and bell metal industry, toy-making, calico printing, dyeing, etc. (4) Urban seasonal industries such as brick-making, pottery, etc. (5) Small perennial factories in urban areas, e.g., hosiery plants, engineering factories, bobbin making, tape-making etc. (6) Seasonal rural industries, e.g., rice, flour mills, Kandsari factories.

The small scale industries may be placed under three categories, viz.,

(1) Those which are subsidiary to large scale industries; (2) those which are engaged in the supply of repair services with small engineering establishments; and (3) those which are engaged in the manufacture of finished goods, i.e., rice and flour milling, brass, copper and aluminium wares, gold and silver thread, cutlery, furniture, iron foundries, hosiery, fruit canning, soap-making, etc.

Now-a-days, modern small-scale industries produce a wide range of goods from simple items to sophisticated products such as television sets, electronic control systems, several engineering products, particularly ancillaries to large industries. Generally, traditionally working small-industries, particularly in rural and semi-urban areas are highly labour intensive, while modern small-scale units make use of highly sophisticated equipment and machinery. The percentage share of employment in total employment in the case of traditional small-scale industries would be around 50 to 55 per cent. But in the case of modern small-industries, the share of employment to total employment is only 30-35 per cent. The traditional small-scale industries produce only 13 to 15 per cent of the total output, but modern small-scale industries contribute 75 per cent of the output. Traditional small-scale industries cannot offer full-time employment to the labourers and most of these industries are carried on by labourers and artisans living below the poverty line.

The Role of small-scale and Cottage Industries in Indian Economy

The small-scale and cottage industries of India have a decisive role to play in the economic development of the country. By and large, small enterprises have certain definite advantages. Let us enumerate those points:

1. Contribution to National Income and larger output: The small enterprises of India were contributing a larger share of National Income when India became independent. Out of the total national income of Rs. 8,500 crores in 1948-49, the share of small industrial units was Rs. 870 crores as against the share of Rs. 610 crores by large industries. The estimated contribution of Micro, Small and Medium Enterprises (MSME) sector, including service segment, to the country's GDP during 2012-13 was 37.54 per cent; while the total employment in the sector is 805.24 lakh; and the share of MSMEs in India's total export for the year 2014-15 was 44.70 per cent. Creation of a vibrant entrepreneurial ecosystem could help increase the contribution of the micro, small and medium enterprise (MSME) sector to India's GDP from the current 8 per cent to 15 per cent by 2020, and increase the sector's share of employment from the current 28 per cent to over 50 per cent of total employment across the agricultural, manufacturing and services sectors, according to a new KPMG-CII study. Only with the industrialisation of the country, the share of large industries has gone up. Although there has been considerable development of large scale industries during the period of planning, even now, India remains mainly a country of small-scale production. The growth and output of small-scale industries are very creditworthy.

In the year 1973-74, there were only 4.2 lakhs unit of small-scale production. The growth and output of small scale industries are very creditworthy. In the year 1973-74, the number of units increased of 23.85 lakhs. The average output of the small-scale ha also been on the increase. The value of small-industries in 1973-74 was Rs. 7,200 crores only. During 20 years, *i.e.*, by 1994-95, the production has increased to Rs. 2,93,990 crores. The compounded annual growth-rate in production has been around 18 per cent during those two decades.

The importance of the small-scale sector in the country's economy is very substantial. In the year 2002-2003, this sector has 3.572 million units with a fixed investment of Rs. 7,42,000 Crores and employment of 19.96 millions. The exports from this sector have been estimated around Rs. 71,200 crores, which is about 50 per cent of exports from the industrial sector as a whole. This point has to be realised as very important from the point of liberalisation and globalisation challenges in the present era. The Special Group on employment appointed by the planning commission has identified the Small and Medium enterprises as the only promising sector from the employment angle.

The contribution of the small scale industries could be understood better from the following table.

TABLE 36.2 Production, Employment and Exports of SSIs in India

Year	*Production (Rs million)*	*Employment (in million)*	*Exports (Rs million)*	*Growth rate of production*	*Growth rate of exports*
2000-01	1,844,010	24.09	6979.7	8.23	28.78
2001-02	2,822,700	24.93	7124.4	2.07	2.07
2002-03	3,067,710	26.02	8601.3	8.68	20.73
2003-04	3,363,440	27.14	9764.4	9.64	13.52
2004-05	3,729,380	28.26	12,441.7	10.38	27.42
2005-06	4,188,840	29.49	15,024.2	12.32	20.75
2006-07	4,716,630	31.26	18,253.8	12.59	21.49
2007-08	5,329,790	32.23	20,201.7	12.99	10.67
2008-09	5,942,950	33.44	21,438.7	11.50	6.12
2009-10	6,556,110	35.24	23,875.2	10.32	11.36
2010-11	7,233,190	37.85	25,683.4	10.33	7.57
2011-12	8,045,130	40.96	28,384.7	11.22	10.52

(*Source:* (Reserve Bank of India, Annual Reports from 2001 to 2012))

2. *Employment Potential:* The small scale industries are labour intensive. Labour investment ratio in their case is quite high. A given amount of capital invested in small scale industrial undertakings is likely to provide more employment, at least in the short run than the same amount of capital invested in

large scale industries. This is a very important factor for a country. The handloom industry alone employs nearly 50 lakh people or nearly as many as employed in all organised industries. So it is a solution to the unemployment problem. Hence, the Karve Committee emphasizing this point stated: "The principle of self-employment is atlease as important to a successful democracy as that of self-Government".

The employment potential in small-scale had been very high in 1970s and 1980s. In 1973-74, employment stood at 39.7 lakhs, while in 1994-95, it increased to 146.56 lakhs. During seventies, the compounded Annual Rate of Growth in employment was 8.7 per cent and in nineties, it was 5.3 per cent.

As indicated the employment level in this sector increased to 19.96 millions in 2002-03. From the above table it could be noted that by 2011-12 the small scale industries generated employment to the tune of 40.96 million. It should be realised that the total contribution to employment by the organised sector was only 8 per cent, and that of the private corporate sector, hardly 2.5 per cent during 1999-2000. The hope on the unorganised sector is based on its status as contributor of 59 per cent of GDP and 92 per cent of employment.

The rapid growth of small-scale sector and its employment has great relevance in our national economic policies. The growth of the small-sector improves the production of the non-durable consumer goods of mass consumption. As such, it acts and anti-inflationary force.

3. *Capital Light:* Small industries require only a smaller amount of capital than required by large scale industries. Where there is scarcity of capital and economising capital is essential, small scale is the only effective solution.

4. *Skill Light.* The large scale industries require high degree of skill and managerial talent of engineers, technicians accountants and managers. In our country, the supply of qualified personnel is very much limited and economising the services of these people is also essential. Small scale provides the training ground for industrial experience.

5. *Import Light:* Small scale industries require mostly indigenous machines and equipment and they need not depend too much on imported materials. In the case of large industries, heavy engineering equipment, machines, technical skill and even raw material have to be imported which would create problems of foreign exchange earnings. Small industries reduce the need for foreign capital or foreign exchange earnings.

6. *Quick yielding and Decentralization:* The time lag between investment and return in the case of small industries is very short and as such the project would give quick returns. In the case of large industries, the time lag will be very long leading to inflationary spiral and rising prices without material output. Further, the small industries being distributed throughout the country there will be no regional imbalance as in the case of large industries which are concentrated in some regions.

7. Better Distribution of Wealth: The decentralization of industries in the small scale sector even distribution of income and wealth. Large scale industries tend to concentrate large wealth in a few hands which is undersirable in a socialistic pattern of society. Further, small scale industry will not create slums, housing problems, sanitation, disease and squalor as in the case of large scale industries.

8. Contribution to Exports: Growth of Small-Scale Industries in the post-independent era has contributed a lot towards export earnings. Bulk of export earnings come from non-traditional items produced by small enterprises. These are ready-made garments, leather goods, sports goods, woolen garments ...3 knitwear, processed foods and marine products and also engineering goods. The value of exports which stood at only 845 crores of rupees, increased to a fantastic figure of Rs. 30,053 crores during the period from 1978 to 1995. The share of the exports from the small-scale sector represents about 40 per cent of total exports in 1994-95. In 2002-03, the value of export from this sector accounted for Rs. 71,200 crores which is 50 per cent of the total industrial sector. By the year 2011-12 the exports increased to Rs. 28384 million with a growth rate of 10.52% Based on the export data maintained by Director General of Commercial Intelligence & Statistics, Ministry of Commerce and the information available with this Ministry about MSME products having significant export, the share of MSMEs in India's total export, for the year 2012-13, 2013-14 and 2014-15, has been estimated as 43.00 per cent, 42.38 per cent and 44.70 per cent respectively. Thus, small-scale enterprises have become indispensable from all points of view.

9. Less of labour unrest and disputes: Another specific advantage in small-scale enterprises is that unlike large-scale industries, these are not ridden with frequent industrial disputes, labour unrest, strikes and lockouts, etc. generally in small units, production will not be comparatively good and amiable. Of course, it is contented that in the small-sector, the labourers are not well organised like large-scale sector, and as such they could not express heir resentment though strikes and other similar tools of intimidation. This may be true to some extent. However, since the number of labourers in small-enterprises happen to be very much limited, the scope for labour trouble will be less.

Problems of small-scale Industries

The small-scale and cottage industries are facing many problems and difficulties in connection with procurement of raw materials, effective techniques of manufacture, marketing facilities, finance etc. Let us discuss some of the prominent problems of the small-scale industry.

1. Raw Materials: Most of the small-scale industries are plagued with the shortage of raw materials. They could neither get the sufficient quantity nor the requisite quality and that too the ram materials were available are a very high cost agencies to get their applications considered on a priority basic to get adequate quota of scarce raw materials, particularly metals, chemicals and extractive raw materials. The efforts of the Government to supply raw materials through state

small industries Development Corporations have not been very successful. The small-sector is treated as a residuary sector in the allocation and distribution of scarce raw materials, like iron and steel, coal and coke, petro-chemical, etc., Open market purchases by the small units leads to high cost of production and competitive inefficiency. Further, most of the small units have to depend on large scale units. The handloom industry is dependent on the supply of yarn from cotton mills. Very small units have to depend on middlemen who take away the cream of the craft.

2. *Shortage of power supply:* The problem of shortage of power is widespread throughout the country and the small units are hit hard by this. They cannot afford to have their own method of generating power like large-scale units. Periodical notified shut-downs and unscheduled shut-downs by the Electricity Boards, low voltage transmission , poor maintenance of installations and consequent breakdown of power, etc., cause lot of hidrances in adhering to the production schedules of small-scale units. This leads to poor productivity of the units.

3. *Low-level of Technology:* Almost all units in small-scale sector carry on production with outdated and obsolete technology. They do not have the facilities of research and training to increase the output with modern technology. In advanced countries, modern technology has revolutionized the small-scale industries. There is little scope in India for transmitting better technology to the producers in the small-scale units, as there is no proper delivery mechanism of better technology.

4. *Problem of Marketing:* For small-scale and cottage industries products, marketing has become one of the biggest problems. These problems arise due to lack of standardization of the product, competition from efficient units, insufficient holding capacity, poor demand and absence of market intelligence. The costly handicrafts like Kashmir Shawls and Banaras silk could not find markets because of the elimination of princes and Zamindars. Even in the available markets, the products do not get fair price. Governmental measures to give marketing support for small and cottage industries do not cover even the smallest segment. In respect of handloom cloth, marketing through public emporia has accounted only one-tenth of total production; in the case of handicrafts, it is only one-hundredth of production. Many handicrafts have good export market in Canada, U.S.A., Australia and Middle East. Small units also face the problem of transport cost and marketing cost. Poor demand and accumulation of stock lead to poor working capital to procure raw materials and resources and keep the units running.

Ancillary units have additional problems of delayed payments by parent units; fiscal changes in fiscal levies and absence of well-defined pricing system.

5. *Export Problems:* Indian has an excellent potential in the export market of small-scale and ancillary industries. In spite of it, the small-scale sector faces the problem of poor support from the government. There are no organized linkage

liaison of exporting small-scale unit's products, as found in Japan. Only very little effort has been made in this sector towards organizing specific export-oriented industries. In spite of these handicaps small-scale units export many commodities. The list includes, bicycle components, wire-netting, fountain pens, spectacle frames, umbrella handles, leather goods, imitation jewellery, sports goods, food products, chemicals, dyes, cosmetics and toiletries, handloom goods and handicraft goods.

6. *Problem of Finance:* The crux of all problems is, however, the problem of finance. small-scale units require finance for the purchase and stocking of raw materials, finance for holding finished products till they are sold out and finance for paying wages. Small-scale producers are very poor who have very little to offer as security. Getting institutional finance by the small units is beset with many difficulties and problems. The credit will not commensurate with the needs of the unit for fixed and working capital: further the credit may not be forth coming timely when required. Generally, small-scale operators, particularly of Tiny Sector feel that the procedure adopted by commercial institution is in the nature of harassment, rather than extending timely credit. Hence, the small-units have to depend on money-lenders for finance or they have to make 'distress sales' of their products. Lack of finance has been the principal reason for sickness in small units.

The extent of sickness in the small scale units could be understood from the table given below

Table 36.3
Magnitude of Sickness Amongst the SSI Units

Year	Number of sick units	Amount outstanding (₹ million)
2000-01	249,630	45,060
2001-02	177,336	48,190
2002-03	167,980	57,060
2003-04	138,811	62,850
2004-05	138,041	53,800
2005-06	126,824	49,810
2006-07	114,132	52,670
2007-08	85,187	30,820
2008-09	103,996	36,190
2009-10	77,723	52,330
2010-11	90,141	52,110
2011-12	85,591	67,900

Source: Reserve Bank of India, Annual Reports from 2001 to 2012

7. Sacrosanct of Investment Limit: We have studied a small-scale unit is one in which the investment in plant and machinery does not exceed Rs. 1 crore. This limit has been kept sacrosanct and all concessions and protections extended by the government to small-scale unit will be completely withdrawn if the investment increases even by a very little amount. A genuinely expanding small-scale unit may likely to cross this investment limit. To withdraw all concessions is rather harsh and such units are thrown to open competition. Even banks and financial institutions do not look upon them with benevolent attitude. It would be better if the Government adopts a pragmatic policy of encouraging small-scale units through 'stages of their development'.

8. Underutilisation of Capacity and other problems: Another important problem facing small-enterprises is underutilisation of the installed capacities in most of the unit. It has been pointed out that capacity utilisation, on an average, ranged about 50 per cent only during the last decade and early parts of this decade. In electrical machinery goods, the capacity utilisation was only 40 per cent and in transport equipment parts, it was barely 30 per cent. In manufacturing and metal industries, the capacity utilisation ranged around 32 to 35 per cent. This shows that more than half of the capacity in small-scale units is not utilised. Further, small units are plagued with the problems of inefficient management, non-availability of cheap power, burden of local taxes etc., besides competition from large-scale industries.

COTTAGE AND SMALL INDUSTRIES IN THE PLAN PERIOD

First Plan

During the First Five-year Plan, Cottage and Small Industries could not be given adequate importance. Still, attempts were made to set up an organizational and policy base which spent for the development of village and small-scale industries during the Firs Plan.

Six all India Boards were set up or reconstituted during the first plan period. These were: (i) The all-India Handloom Board; set up in October 1952. (ii) The All-India Handicrafts Board, constituted in November 1952. (iii) The silk Board constituted in 1949 and reorganized in 1952, (iv) The Coir Board set up in July 1954. (v) The small scale Industries Board, originally set up in November, 1954. (vi) The All-India Khadi and Village Industries Board, originally set up in February 1953 and reorganized as an autonomous Commission in April 1957.

The activities of these Boards cover the entire field of village and small scale industries, and the work undertaken is of a continuing nature.

The All India Handloom Boards gives special attention on the development of co-operatives in the industry and promoting the production and marketing of handloom products. A central marketing organization was set up under the Board with branches in important centres and cities of India. The organization helps the Board in launching programmes of publicity throughout the country.

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The All India Handicrafts Board helps in the improvement of the quality and the quantity of cottage products by assisting in the supply of raw materials, introducing new and better techniques, better designs and also in publicity.

The Commission is doing valuable work in the promotion of Khadi. On an average, now, the production of Khadi of all varieties amounts to about Rs. 25 crores, and of village industries products to Rs. 75 crores per year. Similarly, other boards provide technical assistance to their industries and help them in many significant ways.

An important aspect of the First Five-Year Plan was the acceptance of the principle of a common production programme for large scale and small-scale industries to eliminate competition between the two. This was formulated by, *(i)* reserving of spheres of production, *(ii)* limiting the expansion of large-scale industrial capacity, *(iii)* arranging for the supply of raw material, *(iv)* co-ordinating research, training, etc., and *(v)* imposing a cess on large scale industry.

In April 1950, the Government of India issued a notification prohibiting the cotton mill industry from producing certain varieties of cloth like dhoties of certain width and borders, sarees, lungis, etc., and reserving their production for the handloom industry. By another notification in December 1952, the mills were directed not to produce during that month than 60 per cent of the average quantity packed for sale in India by them per month during the year from April 1951 to March 1952. Under the Khadi Development Act, 1953, an additional excise duty was levied on the production of bordered dhoties by large mills in excess of 60 per cent of their production during 1951-52. Funds were placed at the disposal of the All India Handloom Board and the All-India Khadi and Village Industries Board for rendering financial assistance to these industries from the cess fund.

For financing village and small industries, State Finance Corporations and National Small Scale Industries Corporation were set up and rules governing grant of loans were liberalised.

In order to encourage small and village industries, the Government liberalised its store purchase policy by giving preference of these products over the factory products up to a certain percentage. Further, special attention was paid locally as well as in foreign countries to market these products by undertaking vigorous

publicity and celebration of handicrafts week; conducting exhibitions and opening emporiums and sales depot. Officers were appointed at the block level for the development of village industries, Industrial co-operatives were also set up as agencies for the development of village industries and for the channelling of technical assistance and financial aid.

Due to these increases, the production and employment in the small industries sector increased considerably during the First-Plan period. The production of handloom cloth increased from 742 million yards in 1951-52 to 1,600 million yards in 1955-56, and the production of Khadi increased from 10 million yards to 30 million yards. About 8 million additional spinners were provided full-time jobs. In other industries, employment increased to give full-time or part-time jobs to 6 lakhs workers. Good progress was recorded in many small industries such as oil pressing, hand-pounding of rice, production of soap, non-edible oil, pottery, hand-made paper, palmgur, cottage matches and khandsari.

Karve Committee Report

The planning Commission appointed in June 1955, the village and small Industries Committee under the Chairmanship of Karve to examine the problems of small scale and cottage industries. The Committee recommended the following.

1. Modernisation and development of small and cottage industries without resulting in unemployment;
2. Imposition of ceilling on the growth of large-scale consumer goods in dustry;
3. Production of common consumption items such as cotton, woollen goods, hand-pounded rice, vegetable oils, gur and Khandsari, leather footwear and matches, etc., by the small scale sector.
4. Liberal financial aid to the sector through co-operatives, State Governments and the Reserve Bank;
5. The Committee recommended the method of levying a cess on the mill industry to produce funds for small industries.

The Karve Committee's report is criticised on the ground that any modernization could not be done without creating unemployment and this is impractical. Imposing a ceiling of mill production of consumer goods would result in shortage of supply and the increasing demand could not be catered to properly. The Karve Committee has not taken into consideration the changing consumer's tastes and preferences and the probable resistance that could be offered by consumers.

Second Plan

The programme of development of village and small industries was based on karve Committee report. A provision of Rs. 200 crores was made in the Second Plan for the development of handloom, Khadi village and small industries including Ambar Charkha programme. The Second Plan laid special stress on the establishment of industrial co-operatives in every field. By 1960-61, a number of industrial estates were also constructed under the initiative of the Government and the number of industrial estates stood at 634 and a provision of Rs. 15 crores was made available for this purpose in the Second Plan.

During the Second Plan period, handloom and spinning industries developed greatly. Handloom production increased to 1,900 million yards, and Khadi to 48 million yards a year by 1961-62.

The programme included technical assistance, financial aid and marketing facilities to small scale units by institutions set up during the First Plan period. Service institutes were set up in each State and run by the Central Government.

Japanese Delegation and Small Scale Industries

During the Second Plan period, the Government of India invited a five-member Japanese Delegation of experts, headed by T.Iwatake, to study the organisation of small industries in India. The report was submitted in December 1959. The delegation recommended many changes for the promotion of small industries. The delegation recommended many changes for the promotion of small industries. The delegation recommended many changes for the promotion of small industries. The important recommendations were as follows:

(i) The industrial estates should be established in large numbers, scattering throughout the country, particularly where there are rich potentialities of industrial development;

(ii) If electric power is not available, diesel power should be provided;

(iii) Only one trade should be promoted in one industrial estate;

(iv) Industrial co-operatives should be formed to take up joint ventures like common purchase of raw materials, storage, transportation, marketing, etc., as well as quality tests.

(v) More credit facilities should be given to small industries and a credit insurance scheme should be evolved for the purpose;

(vi) Industrial Service institutes and extension centres should be better equipped with tools, machinery and also excellent engineers;

(vii) Technical committees should be established in each State

(viii) Promotion of ancillary industries, improvement of quality standards, supply of statistical information, and intensification of export programmes were also suggested.

Third Plan

The main objective were to improve the productivity of the worker in small industries to enlarge the availability of institutional finance, promotion of industries in small towns and rural areas, and promotion of small industries as ancillaries to large industries.

During the Third Plan, a sum of Rs. 240.76 crores was spent on the development of cottage and small scale industries in India in the public sector.

During this period, production of handloom and powerloom cloths increased from 2,103 million to 3,000 million metres, and raw silk from 1.50 million kgs.

Annual Plans

During 1966-67, 1967-68 and 1968-69, an outlay of Rs. 45 crores, Rs. 43 crores, and Rs. 50 crores, respectively was proposed under the annual plans for small scale industries.

Upto the end of 1968-69, about 1,40,000 small scale units had been registered with the State Industries Directorates, as compared to about 36,000 units at the beginning of 1962. Machines worth Rs. 4.5 crores were supplied on hire purchase terms to these industries in 1968-69 as compared to about Rs. 1.8 crores, in 1960-61. The value of purchase by Central Government departments from small industries increased form Rs. 6.5 crores in 1960-61 to Rs. 28.6 crores in 1968-69.

Fourth Plan

The objectives of small industries programme in the Fourth Five-Year Plan were:

(i) To improve the production techniques and enable them to produce quality goods and to bring them to a viable level;

(ii) To promote decentralization and dispersal of industries; and

(iii) To promote agro-based industries.

These were expected to be achieved through giving facilities for (a) research, (b) design development, (c) industrial extension services, (d) enlarged testing and (e) promoting schemes for supply of machines on hire purchase with the assistance of the banks.

Production of cotton cloth by handloom, powerloom and khadi industries increased to 4,250 million metres by the end of Fourth Plan. The value of the export of the handloom product increased to Rs. 15 crores in 1973-74.

Fifth Plan

In the Fifth Plan, the strategy of development was designed as follows:

(a) Developing and promoting entreprenеurship and provide a 'package of Consultancy Service' so as to generate maximum employment and self-employment opportunities;

6.15

(b) Facilitating fuller utilization of the skills and equipment of the persons and progressively improving the production techniques;

(c) Promoting these industries in selected 'growth' centres in semi-urban and rural including backward areas.

For this purpose a total outlay of about Rs. 611 crores in the public sector was envisaged. In addition to this about Rs. 1,050 crores were invested from private sources including banking and financial institutions. Thus for the Fifth Plan, a total outlay of about Rs. 1,600 crores was available for the development of small industries.

Sixth Plan

This Sixth Plan allocated a sum of Rs. 1,780 crores for village and small industries. However, the actual outlay exceeded the limit to Rs. 1,952 crores. During the Sixth Plan period, the production of this sector increased from Rs. 33,538 crores to Rs. 65,730 crores. Exports increased from Rs. 2,281 crores to Rs.4,558 crores at current prices. Employment during this plan period increased in this sector from 234 lakh persons to 315 lakh persons.

Seventh Plan

The Seventh Plan made a provision of Rs. 2,752 crore for village and small industries. However, the actual expenditure during the planning period was Rs. 3,249 crores. Production of power-loom cloth surged forward very much during this planning period. As against the achievement of Rs. 50,520 crores in production in the year 1984-85, the production in 1989-90 reached the level of Rs. 92,080 crore, showing an average annual growth rate of 12.7 per cent. Another sector which performed exceedingly well was the handicraft which touched a level of Rs. 6,400 crore in exports in 1989-90. In terms of employment, the growth rate was 4 per cent.

Eighth Plan

The Eighth Plan indicated the approach and strategy for this Plan in the following words: "One of the areas of priority of the Eighth Plan is generation of adequate employment to achieve near-full employment level by the turn of this century. Several activities pertaining to this sector like processing of agricultural produce in rural areas, sericulture and allied activities have been indentified as critical goals in priority sector. It is possible to dove-tail programmes of Khadi, village industries, handlooms, sericulture and handicrafts to integrated local area development programmes for selected village for poverty alleviation through increase in employment."

The Eighth Plan allocated a sum of Rs. 6,334 crore for the development of village and small industries which was 1.5 per cent of the total public sector outlay. Among the traditional industries, handicraft production is targeted for Rs. 29,620 crores by 1996-97. During this plan period, employment in small and village industries was to expand from 443 lakhs in 1991-92 to 533 lakhs in 1996-97.

an increase of 110 lakhs. On the export front, the major contribution would be from modern small industries to the extent of Rs. 7542 crores and handicrafts Rs. 18,700 crores.

Ninth Plan

During the Ninth Plan Period, the major problem anticipated by the small-scale sector were (i) inadequate credit facilities; (ii) Use of obsolete technology, machinery and equipment; (iii) poor quality standards; and (iv) inadequate infrastructural facilities.

The credit provided to the small scale industries sector by the financial institutions is considered as credit to 'Priority Sector'. By March 1996, the total credit provided by the public sector Banks stood at Rs. 29,842 crores. The cumulative disbursement by state Financial Corporations amounted to Rs. 12,704 crores up to March 1996.

The National Small Industries Corporation (NSIC) has envisaged an increase in its turnover from Rs. 644 crores in 1996-97 to Rs. 1,560 crores in the terminal year for the Ninth Plan (2001-2002).

Production target for small-scale industries has been put around Rs.7,38,180 crores and production of powerloom cloth has been fixed at Rs. 30,489 million sq. sq. meters. In the traditional sector, Khadi cloth is expected to be around 280 million goods; and Coir fibre production is expected around 3,75,000 tonnes. Production of handloom cloth is targeted at 12,336 million sq.meters and Raw Silk at 20,540 tonnes. Handicrafts production is expected to be Rs. 52,201 crores.

Employment target in the entire small sector is fixed around 666 lakhs. Exports of small-scale is expected to fetch around Rs. 78,900 crores; powerlooms Rs. 8,050 crores and coir industry Rs. 400 crores. Handlooms are expected to export Rs. 3,175 crores worth goods and silk Rs. 1,525 crores. Export of handicrafts is estimated to the extent of Rs. 11,950 crores.

On the basis of the recommendations of the Study Group on Development of Small Enterprises (appointed by the Planning Commission), the Government announced a package of measures to strengthen small scale sector, on August 30,2000.

Package of Measures

(i) Lowering the investment ceiling in plant and machinery for small scale industries sector from Rs. 3 crores to Rs. 1 crores.

(ii) Limit for composite loans to SSI units raised from Rs. 10 lakhs to 25 lakhs. Composite loans will include term loans working capital, from the same agency.

(iii) A capital subsidy of 12 per cent for investment in technology in selected sectors.

(iv) To help the SSI units to improve competitiveness, the limit for exemption from excise duty has been raised from Rs.50 lakhs to Rs. 1 crore.

Tenth Plan

According to Target Estimates, the small-scale Industries have a total target of production to the extent of Rs. 1,40,940 crores, anticipating an average annual growth-rate of 15.2. The SSI is expected to increase the employment to the level of 23.7 million persons. The estimated target of exports from the SSI sector is Rs. 1,26,000 crore. The powerloom production has been targeted at 1,32,821 million tonnes and coir fibre 435,000 tonnes. The target for the production of handicrafts has been fixed at Rs. 47,204 crores, with an export potential of Rs. 17,000 crores having 6.8 million persons in employment.

Measures to Develop Small Industries. Cottage and small industries form an integral part of Indian Industrial Economy and their contribution to the economy is of vital importance. Considering the Vast unemployment problem is our country, encouraging and expanding small-scale units of production will be the only answer to solve this problem. Hence the Government, through its policy measures has given a unique position for small units in the economy of the country. We shall discuss briefly the measures adopted by the Government to develop small-scale units of production.

Industries (Development and Regulation) Amendment Ordinance, 1984

One of the important policy measures adopted by the Government to improve the competitive strength of small-scale sector is to reserve specific items for exclusive production by the small industrial undertakings. Such reservation is being made since 1970, However, doubts were raised about the power of he Government to make such reservations. With a view to removing this uncertainty, an ordinance was issued on January 12, 1984 to amend the Industries (Development and Regulation) Act, 1951 to provide for statutory reservation of specific items for exclusive production in the small-scale sector, as on 31st December 1986 was 863. Entry of large and medium scale unit is prohibited in the reserved areas except on the conditions that the concerned unit would export a minimum of 75 per cent of its production.

Small Scale Development Organization (SIDO)

The Small Industries Development Commissioner (Small-scale Industry) through is network of field offices, help small-scale units by providing marketing counselling, consultancy services and conducting product oriented market surveys. It had launched various technology support programmes for the small-scale units through establishment of Process and Product Development Centres, Testing Stations and Tool Rooms and Training Centres.

National Small Industries Corporation

The National Small Industries Corporation, another central Agency, was established in 1955 with the view to assist, promote develop and finance small-scale industries in the country. The main functions of the Corporation are (a) secure Government orders from the small industries, (b) to provide loans, (c) to provide technical assistance, (d) to secure co-ordination between small-scale and large-scale industries, so that the former produce goods required by the latter, and (e) to underwrite and guarantee loans from banks and other sources. A part from providing finance, the corporation has rendered valuable service in the field of supply of machinery on hire-purchase system to the small industries and in securing Government orders for small industrial units.

District Industries Centres (DICs)

The District Industries Centres (DICs) programme was launched in 1978 with the objective of providing all the services and support facilities to small industries under on roof. The District Industrial Centres provide a focal point for promotion of tiny village and small industries mainly in rural areas and small towns. The metropolitan cities of Bombay, calcutta, Delhi and Madras are outside the purview of the DIC programme; the total number of approved DICs during 1986-87 stood at 419 covering 419 districts.

National Institute for Entrepreneurship and Small Business Development (NIESBUD)

The NIESBUD was established in July 1983 organising and conducting training for entrepreneurs and for co-ordinating the activities of various institutes and agencies engaged in training programmes. The institute prepares model training programmes. The Institute prepares model training activities, holds examination and confers certificates and diplomas on trainees. It also undertakes research in the field of entrepreneurship and small business development and conducts seminars, workshops and conference for officers and conducts seminars, workshops and conference for officers in the field of entrepreneurial and business development.

Awards for small scale Entrepreneurs

In order to encourage the entrepreneurs and give them proper recognition in small-scale sector, a scheme for national award has been introduced since 1983-84. The awards carry a cash prize of Rs. 25,000/-, Rs. 20,000/- , Rs.15,000/- besides special awards of Rs.10,000/-.

Financial Aid

For granting credit facilities, the small-scale industrial units are treated as one of the priority by commercial banks and other financial agencies. The state Finance Corporations extend long-term and medium-term loans to modern small-scale enterprises. Generally, small units find it difficult to have access to various institutional agencies supplying finance, mainly because of the lack of

adequate security. In order to overcome this difficulty, the Reserve Bank of India evolved the CREDIT GUARANTEE SCHEME in 1960 for guarantee of advance granted to small-scale units. Under this scheme, credit institutions were required to pay to the Guarantee Organization, a guarantee Commission at the rate of one-fourth per cent per annum on the amount of guarantee issued. As a result of these incentives, there has been a considerable improvement in the financing of small-scale industries.

The Industrial Development Bank of India (IDBI) provides funds to the commercial banks and the State Finance Corporations (SFCs) through its scheme of refinancing. Another significant development has been the setting up of small Industries Development Fund by the IDBI on May 20, 1986 with a fund of Rs. 2,500 crores. The IDBI has taken a number of refinancing measures to small-scale units.

Further, a *Small Industrial Development Bank of India* (SIDBI), an apex all-India financial institution has been set up as a subsidiary of IDBI with an equity of Rs. 250 crores. This SIDBI has started functioning from April 2, 1990 through its 25 offices located in different States of the country. During the first year of its operation, SIDBI had sanctioned financial assistance to the extent of Rs. 2024 crores and disbursed 2253 crores. Cumulative financial assistance extended by SIDBI till March end 1995 had been Rs. 16,220 crores and disbursement Rs. 12,070 crores. This institution is actively engaged in solving the problems faced by small-scale units, such as, delayed payments, lack of infrastructural support and lack of marketing expertise.

Fiscal Incentives

In order to promote the growth of small-scale industries, both the Central and State Governments have extended a number of fiscal incentives. They are: (a) Tax holiday for new industrial undertakings; (b) Capital subsidy to industries started in backward areas; (c) Investment allowance; (d) Exemption from excise duty; (e) A price preference of 15 per cent over medium and large industries.

Performance of small-scale sector:

The performance of small-scale sector recently, has been fairly commendable. The total number of SSI units which stood at 101.10 lakh units in 2000-01, producing goods worth Rs. 2,61,289 crore at current prices, employing 239.09 lakhs of people, increased to 118.59 lakh units in 2004-05, producing goods worth Rs. 4,18,263 crore at current prices, employing 282.91 lakh people. On an average, 18 to 20 get employment in SSI against an investment of Rs. 1 lakhs Exports of SSI which stood at Rs. 69,797 crore in 2000-01 exceeded Rs. 98,000 crore in 2004-05. With increasing competition on account of globalization of the Indian economy, size of the enterprises and the level of technology employed by them have assumed critical significance in the context of the small enterprises becoming globally competitive. The performance of small scale sector in terms of contribution to GDP, employment generation, production and exports could be studied with reference to the tables 36.1 and 36.2.

Large Scale vs. Small scale industries

It is wrong to assume that large scale industries can kill small scale and cottage industries altogether. "The petty traders cannot be killed and they, like Proteus, ever change their aspect". Even in countries of big business, small industries occupy a definite and important sphere. In France more than 99% of the Industrial establishments employ less than 100 workers. In Germany 13% of the total population derives its livelihood from handicrafts. The Industrial city, Birmingham has 50 per cent of the establishments with less than 50 workers. In Japan, 53 per cent of industrial population gains livelihood in small undertakings employing less than 5 workmen.

It is only by effective dove-tailing the small-sector into the large-scale sector that the common production programme can be made successful.

ROLE OF TECHNOLOGY IN INDUSTRIAL DEVELOPMENT

What is meant by Technology?

'Technology', according to dictionary meaning is 'the systematic knowledge of the industrial arts'. 'Technique' denotes the method of performance. These two expressions are increasingly used in modern literatures on industrial production and progress. We say that many backward economies could not progress because, they did not know the technology of utilizing their resources.

In the last century, science was essentially the concern of a few private individuals and institutions. But, in the present century, it has emerged as the most important element of national development and economic uplift. There is widespread influence of technology in all fields of human endeavours whether public or private. The frontiers of science and technology are widening and deepending every day that we are constantly under pressure to alter out perspective to come to terms with the newly discovered truths. New products of research are affecting national economy.

In United States of America, the science and, in its application, technology have in recent years acquired new horizons and reached unforeseen possibilities. In that country, science and technology and economy together, over the last quarter century, have had the longest period of sustained growth, innovation and the new industry in the recent history. In our country, science and technology have improved working conditions, increased flow of products, have added many new factors to our consumption and new machines to process the products. Factory automation and new machines have strengthened the measures of our growth and productivity.

Technology and Modernization

Technology is a vital 'input' in modern industrial growth and modernization of industries. Technology opens infinite avenues of industrial growth with qualitative and quantitative improvements in production structure. Modernization of our industries, be it large scale sector or in small-scale sector,

has become the imperative need. Modernization depends on introducing appropriate modern-dimensional process, covering problems of technology, management and human capital. It consists of upgrading the existing technology replacing the obsolete machinery with better production process. Better utilization of human capital is an integral part of modernization and improved technology.

We have studied already that many industries in India face the problem of obsolescence and this is more so in agro-industries like cotton-textiles, jute-textiles and sugar industries. The equipment and machinery used in these mills are old by a quarter century or even a half century, consequently the productive capacity is very low, the cost of production is very high and the mills could not be worked to full capacity. All these end in poor production and low strength in the competitive global market.

Benefits of modernization and New Technology

The important benefits arising out of updated technology and modernization are: (a) Improvement in productivity leading to higher production in the economy: This will increase the export and reduce the imports. (b) Reduction in cost of production Reducing the cost of production would be best solution to counteract the inflationary pressures in the economy, as demonstrated by Japan by adopting cost-reducing technology. (c) Better technology would improve the quality of the products which would boost the export of the commodity. But in our country, modernization with improved technology is a formidable problem. What are the causes which hinder modernization of Indian industries through improved technology?

Causes for Slow Pace of Modernization

1. Licensing Policy which was adopted hitherto stood in the way of modernization, as this would lead to increase in capacity, which had to be licensed. With the adoption of New Industrial Policy, this problem will get reduced.

2. Price controls would prevent the industry from making reasonable profit which can be made use of for modernization. Further, with the introduction of modern technology, the cost of production will increase initially and only after a time-lag there will be generation of adequate funds. In the context of price controls of products, the management would not risk with additional investments.

3. High rate of corporate taxation leaves the industry with little profit which cannot be utilized for modernization. Further, there is lack of finance in adequate measure for modernization.

What is Labour-Intensive Technology?

Generally it is stated that in India, labour-intensive technology should be adopted as there is considerable unemployment. What is meant by labour-intensive technology? It is presumably a technology that generates the most jobs. There is some confusion in the minds of the people that labour intensive technologies alone generate most jobs. For example according to the advocates of labour-intensive technology, a bullock-cart is labour intensive, as it generates more jobs, while a jet plane is not labour-intensive. In the same way, a computer is less labour-intensive than mannual labour. The confusion has arisen because labour-intensity has been interpreted as the number of jobs directly created per unit of investment. By this criterion, the bullock carts and manual labour certainly created more employment than modern technology. However, when we consider the indirect employment generation, the employment generated in other industries, as a consequence, modern technology generally far outstrips the more primitive technology.

For some projects, the direct effect is large, but the indirect or linkage effect is small. For others, it is the other way round. In the case of bullock cart, the direct effect is large compared to the jet plane, but the linkage effect is small compared to jet. Generally, the more modern technology has a high linkage effect, direct effect is high.

The correct strategy of the appropriate technology would be to elect those technologies which maximise the direct plus linkage employment effects.

Review Questions

Section - A

1. Define 'Cottage Industry'
2. What is a 'Tiny' sector?
3. What is the investment limit for the tiny sector at present?
4. Mention three cottage industries.
5. What was the value of export of SSI sector in 2002-03?
6. When was All-India Handloom Board started? Why was it started?
7. What is the prescribed target of production of SSI sector for the Tenth Five-Year Plan?
8. What is NIESBUD?
9. What do you mean by Technology?
10. What is D.I.C.?

Section - B

1. Explain how are small industries classified?
2. What is meant by Technology? Differentiate between low-level technology and high-level technology.
3. What are the Boards constitued for the development of small Industries?
4. What were the recommendations of Karve Committee?
5. What were the package of measures for the benefit of SSI announced by the Government in August 2000?
6. What is labour-intensive technology?
7. Write a note on Japanese delegation & its report to improve SSI.

Section - C

1. Discuss the importance & role of small industries in Indian Economy.
2. What are the problems of small-scale industries in India and how they are attempted to be solved?
3. Discuss the growth of SSI and Cottage industries in the plan period.
4. Briefly discuss about the organisations (both financial and non-financial) helping the small scale and cottage industries in India.
5. Discuss the role of technology in Indian industries. Explain the factors that impede modernization of Indian industries.

Chapter 32

Unit IV. Dr. D Anuradha.

Industrialization: Role, Pattern & Development during Planning Period

Problems of Industrialization

In the earlier parts of this book, we studied in detail about the concept of development and the factors inhibiting economic development in a country. The various characteristic features of underdevelopment, viz., under-utilization of resources, low capital formation, low level of technology, population explosion, social attitudes of the people; and vicious circle of poverty are responsible for poor industrialization and development of the economy.

In recent times, it has become an established fact that material riches and industries go together. This has been well demonstrated by the advanced economies of the world. At the same time, it has been proved that less developed countries which lack industries have to live in poverty.

What do you mean by industrialization? Industrialization does not mean merely starting of a few industries for producing consumption articles. Even before attainment of independence, India had cotton-textile industry, jute industry and sugar industry and also Iron and steel 'industrialized' country. The development of net-work of *infrastructure* like transport, power, communication and starting of key industries to produce capital goods for starting more industries in the economy constitute industrialization. The existence of all facilities, particularly the infrastructure facilities speeds up the tempo of industrialization. Generally, in underdeveloped countries, the infrastructure is not developed to create suitable conditions for development. When the infrastructure is available, more capital will be forthcoming for investment. Hence, every country has to take steps first to develop the necessary infrastructure and later, the task of setting up industries on its own by inducing the inflow of foreign capital.

Political stability and political climate are mainly responsible for industrialization at the initial stages. The type of Government, the political philosophy of the party in power, the character and culture of the political administrators of the country can either hinder or initiate industrial progress.

Above all, industrialization depends on the attitudes and aspirations of the people in the society. Economic histories of many developed nations bear testimony to this.

Role of Industrialization

Indian economy with large manpower and varied resources has to be industrialized. The arguments for industrialization are as follows:

(a) Increasing the income substantially: Industrialization of the country is the only means of raising the standard of living of people substantially and also permanently. Only industrial development could offer a secure base for rapid economic growth and income. Though an economy can grow with 'agriculture', the efforts of *Man* are restricted by limiting factor of *Nature*. Only in the sphere of industries, human efforts with improved technology would give rich dividends by means of large scale production of varied goods for consumption and export. The empirical evidences with many countries of the world indicate that there is a close correlation between high level of income and industrial development. The industrially developed countries of the world have a very high per capita income exceeding 19,000 dollars, while in less developed countries, it is as low as 300 dollars; or at any rate, not more than 2000 dollars for fairly developed middle-income economies.

(b) Meeting high income-elasticity of demand: The income-elasticity of demand for agricultural products will be low, beyond certain limits. Only in the initial stages of development, the people will demand more of agricultural goods. Once agricultural production reaches a point where the demand for food is completely met in the economy, the increased income will be utilized in demanding industrial products. Thus, there will be a ceiling for demand of agricultural products. In other words, the income elasticity of demand for the manufactured goods is high and that of agricultural products low. To meet the increasing demands of manufactured industrial products, the economy has to produce more of industrial goods. For this, industrialization is essential.

(c) Earning Foreign Exchange and comfortable Balance of Payments position: Industrialization is essential for keeping the export trade vibrant and earning foreign exchange, so as to have comfortable balance of payments. It may be argued that economy could produce more of agricultural goods for export and in turn import industrial goods without much industrialization. This argument is rather weak. There is no guarantee that the countries exporting primary agricultural goods may be able to do so regularly and permanently and earn foreign exchange in adequate quantities to import manufactured goods. In practice, agricultural countries face difficult situations due to vagaries of monsoon and natural calamities. Moreover, the demand for agricultural goods in advanced countries will be very low. On the other hand, demand for manufactured goods in the exporting agricultural country will be very high. That is to say, the income- elasticity of exportable agricultural goods will be low, while

income-elasticity of imported manufactured goods will be very high. This disparity will lead to poor balance of payments position to the countries producing and exporting agricultural goods, as the terms of trade will not be favourable to them. So, it is imperative that countries producing and exporting agricultural goods should substitute manufactured goods also for export to have better balance of payment position. Industrialization is only a 'rational consequence' of low intensity of demand for agricultural commodities, after a certain stage, be it domestic consumption or export.

(d) Transferring surplus Labour: We have studied that backward economies suffer much due to population pressure and excess of labour force in agriculture, leading to unemployment and underemployment. Further, with the technological improvement in agriculture, the existing superfluous labour force would become still more unnecessary, leading to disguised unemployment. Hence, it is essential to industrialize the economy, in order to absorb the excess labour force in agriculture, and transfer it to industries. By this, the unemployed and disguisedly employed agricultural labour force would become more productive in industries. Real industrialization lies in keeping the labour force in agriculture to the barest minimum.

(e) providing strength and security to economy: The real strength of the economy lies in industrialization, which would help in producing capital goods for industries and also goods for export. Further, it is only through industrialization, the agricultural base could be strengthened and expanded by ensuring farm inputs like chemical fertilizer, implements and machines, storage and transport facilities, etc. Industrialization envisages industrial environment, industrial culture and urbanization, offering better economic security to the nation, when international crisis develops. Besides, in these days of war preparedness, only through industrial development, the national objective of self-relance in defence could be achieved.

Agricultural Development and Industrialization

We have studied already the interdependence of agriculture and industries. It is wrong to think of agricultural development and industrialization as conflicting in a long term programme. "Industrialization is inseparable from substantial, sustained economic advance, because it is both a consequence of higher incomes (people spening relatively more on manufactured goods and services, relatively less on food) and a means to higher productivity (enabling agricultural efficiency to rise by shifting people out of agriculture especially where there is rural over-population, stimulating innovations, and in other ways). Improvement in the productivity of agriculture is one of the most solid means of promoting industrialization; in fact, unless agriculture does modernize substantially, industrial expansion in most underdevelopment countries is likely to proceed at slow speed due to lack of markets, since the great majority of the population will not have the necessary purchasing power. On the other hand,

agricultural improvements cannot go very far unless there is industrial development to take up the released manpower and to provide a solid technical base for the equipment and services essential for modernised agriculture." *[E. Staley]*

Effects of Industrialization

Industrialization leads to three important effects, e.g., (a) Internal structural changes; (b) Changes in pattern of foreign trade, and (c) Social consequences.

(a) Internal Structural changes: Industrialization in the initial stages leads to an increase in the number of persons engaged in secondary industry. The rate of growth of factory employment is related to the expansion of industrial output and also the establishment of new industries. The relative growth of non-agricultural population which has characterized industrialization brings with it many significant economic, social, psychological and political changes. It increases the number of wage earners.

The spread of wage-earing possible a gradual change from indirect taxation to direct taxation. Public investment programmes of the Government will change in magnitude and direction depending on the new distribution of population.

The spread of wage-earning makes possible a gradual change from indirect taxation to direct taxation. Public investment programmes of the Government will change in magnitude and direction depending on the new distribution of population.

(b) Changes in Pattern of Foreign Trade: In the absence of restrictive commercial policies, the structure of foreign trade will change. Imports of manufactured and consumer articles will be considerably reduced and the pattern of imports will be mainly capital good for industrialization. Protection to home industries will also reduce foreign competition.

(c) Social Consequences: Industrialization is not merely starting of few factories in some selected areas. It recognizes, besides the selection of industries, areas, financing of industries, the rate of development etc., the problem of social transition. The actual process of industrialisation involves fundamental changes in type of living and standard of living. These call forth suitable social adjustments. The ease with which these adjustments are made is a function of a number of variables, such as the level of living in the agrarian society, density of population, type of industries established, the adequacy of education and housing programmes, etc.

Patterns of Industrialization

Patterns of industrialization vary from country to country depending on the initiative taken by the Government and also on the process of industrialization.

According to the amount of initiative taken by the Government or private enterprise, industrialization may be individual, or private-initiated, state

initiated, and jointly initiated (*i.e.*, mixed economy). This classification is only a rough one. In the initial stages of industrialization, efforts of both individual and Government are essential. However, we can group England, U.S.A., and France under the first category, i.e., private initiated industrialization. Soviet Russia and China may be grouped under the second category, *i.e.*, Government initiated. Japan, Germany and India may be grouped under third category, i.e., jointly initiated.

According to process adopted, industrialization can be classified as 'Revolutionary' and 'Evolutionary'. The process of industrialization undergone in Russia is described as 'revolutionary', while in England it is called 'evolutionary'. These terms cannot be taken as mutually exclusive, and they are partially overlapping. The evolutionary process of industrialization in England is called *'Industrial Revolution'* whereas the revolutionary process of industrialization adopted by the formerly U.S.S.R. was most evolutionary in character as it began with imported and copied technology. Process of industrialization under Government initiative will be quick and phenomenal and hence it is called 'revolutionary'. In the evolutionary process, the principal generating forces are enterprising spirit and technology. In the case of England, the added advantage was the 'personal freedom' enjoyed by the people. Absence of personal freedom is a restriction on economic activity. At the same time, the attainment of personal freedom does not automatically bring about the process of industrialization.

INDUSTRIAL DEVELOPMENT DURING PLANNING PERIOD

First Five-Year Plan

The industrial structure at the commencement of Planning exhibited the features of an underdeveloped economy. On the eve of the First Plan, the industrial development was largely confined to the consumer goods sector; the most important industries were cotton textiles, salt, sugar, soap, leather goods and paper. Industries manufacturing intermediate goods like coal, cement, steel, power, non-ferrous metals, alcohol and chemicals were also established. But their production capacity was very small.

The First Five-Year Plan was not an important plan for industrial development, as industries got only 2.8 per cent of the total expenditure of Rs. 1960 crores. Including village industries, the total expenditure was Rs. 97 crores, *i.e.*, 4.9 per cent of the total expenditure of the First plan. However, a humble beginning was made in the industrial sector by starting public sector industries. The important projects in this category were Hindustan Ship Yard, Hindustan Machine tools, Sindri Fertilizer factory (Ammonium Integral Coach Factory and NEPA newsprint mills. The rate to growth of output in the large-scale industries, during the First Plan period was 6 per cent per annum, against the target of 7 per cent.

Second Five-Year Plan

We had already studied that the Second Plan was an industrial plan based on Mahalanobis model with the purpose of quick industrialisation of the economy, by starting basic and capital goods industries. The aim was to make machines that would make machines for development of the economy.

During the Second Plan, a sum of Rs. 938 crores was spent on industrial sector. This comes to 20.1 per cent of the total expenditure of the plan. This is a massive expenditure, compared to First Plan. During this plan, three new steel plants in the public sector was commissioned at Bhilai, Rourkela and Durgapur. The public sector started its role of filling up the gaps in industrial structure through its participation in iron and steel, lignite, fertilizers, railway locomotives and coaches, machine tools, heavy electricals, ship building, antibiotics etc. The second Plan achieved some success in the dispersal of industries. In fact, all the three steel plants were established in backward areas and they soon developed into industrial towns. The Second Plan achievement in the industrial sector was 7.25 per cent per annum, against the target of 10.5 per cent.

Third Five-Year Plan

The objective of Third Plan was to reinforce the existing industrial structure and to lay the foundation for further industrialisation of the country in the next 15 years. Hence emphasis was given to producer and capital goods industries with special importance to machine building programmes. This was aimed at making the economy self-sustaining in subsequent plans.

In the Third Plan, out of the total expenditure of Rs. 8,577 crores, a sum of Rs. 1,726 crores was spent on industrial sector making its share as 20.1 per cent of the total. Top priority was given for the completion of the project started in the second plan. Second priority was given to the programmes for expansion and diversification of capacity of the heavy engineering and machine building industries, castings and forgings, alloy tools and special steels, iron and steel and ferro-alloys, besides increasing the output of fertilizers and petroleum products. However, total industrial production in the Third Plan fell short of the plan target by 30 per cent. Real growth rates recorded was around 15 per cent per annum in a number of industries like aluminium, automobiles, electrical transformers, machine tools, engines, textile machinery, ball-bearings and roller-bearings.

Fourth Five-Year Plan

We know that there was suspension of planning process for three years after the Third Plan and the economy had only annual plans. This had a strong decelerating effect on the industrial development. Production in several industries suffered a serious set back and many industries produced far less than their installed capacities. While increase in industrial production was only 5.3 per cent in 1965-66, it fell to 0.2 per cent in 1966-67 and 0.5 per cent in 1967-68.

However, it increased to 6.2 per cent in 1968-69. This favourable effect was due to increase agricultural production during 1968.

It was under this atmospher the Fourth Plan was started in 1969, and out of the total investment of Rs. 15,779 crores, the industrial sector accounted for an investment of Rs. 2,864 crores, i.e., 18.2 per cent. Industrial production in the Fourth Plan increased only by 3.9 per cent per annum against the target growth rate of 10 per cent per annum. The reasons for this short fall were *(a)* Shortage of raw materials *(b)* Sluggishness of demand (c) Labour troubles *(d)* Bottlenecks due to traffic troubles which affected movement of coal, cement, iron ore, steel, cotton textiles, fertilizers, cement, chemicals, aluminium etc.

Fifth Five-Year Plan

The pattern of investment during this plan was designed to have the following: *(i)* Rapid growth of core sector industries *(ii)* Rapid diversification and growth of export producing industries *(iii)* Substantial expansion of production of essential consumer goods like cloth, edible oils, sugar, drugs bicycles etc. *(iv)* Restraint on the production of non-essential goods.

The total expenditure under the Fifth Plan was Rs. 39,426 crores of which the share of the industrial sector was Rs. 8,989 crores, i.e., 22.8 per cent. The achievement during this plan for the industrial sector was 5.9 per cent against the target of 7 per cent.

Sixth Five-Year Plan

The Sixth Plan emphasised on the optimum utilisation of capacities and improvement of productivity and also enhancement of manufacturing capacity with special attention to capital goods industries, electronic industry etc. In the Sixth Plan, the share of industrial sector was Rs. 15,000 crores which account for 13.7 per cent of the total plan expenditure. During the sixth plan period there was wide change in industrial policy of the government with liberalisation in trade. As a result, industrial production started picking up. At the same time there were distortions in the growth as well.

Seventh Five-Year Plan

The objectives of the industrial sector in the Seventh Plan were: *(i)* Ensuring adequate supply of wage goods and consumer articles for mass consumption at reasonable prices and acceptable quality *(ii)* Utilisation of the existing facilities to the maximum through restructuring, improved productivity and upgradation of technology *(iii)* Concentration on development of industries with large domestic market and export potential to emerge as world leaders in them.

The outlay in the Seventh plan for industrial and mineral programmes was Rs. 17,268 crores. As against this, the actual expenditure (at 1984 prices) was Rs. 18,564 crores.

The average growth rate of the industrial sector during the Seventh Plan was 8.4 per cent per annum as against the targeted growth rate of 8 per cent per annum. This performance was mainly due to manufacturing sector, which has a large weightage of 77.11 in the general index of industrial production. The manufacturing sector by itself registered an average growth rate of 8.8 per cent per annum which was well above the target.

Eighth Five-Year Plan

We studied already that the Eighth Plan was started only in 1992-93, due to political uncertainties. During 1991-92 there was a severe set back to industrial growth process. The General Index of Industrial Production showed only a very nominal increase of 0.6 per cent. The manufacturing sector with a weightage of 77.11 in index of Industrial Production showed a decline in production of 0.8 per cent.

The Eighth Plan envisaged an outlay of Rs. 40,673 crores for industrial and mineral programmes in the public sector. Of this, Rs. 35,150 crore was for the central sector and the balance Rs. 5,523 crores for the states sector. Because of the substantial liberalisation measures initiated in the field of industry, trade and commerce, the Eighth Plan did not make too much emphasis on quantitative targets. According to plan document, "The desired growth of different sectors will be achieved primarily through modification in industries, trade, fiscal policies and change in duties and taxes rather than through quantitative restrictions on imports/exports or licensing mechanism." The Eighth Plan expected the private sector to play an increasing role in industrial activities, especially where security and strategic or social considerations were not very important. The Eighth Plan attempted to make the public sector competitive and efficient. In order to achieve this, following integrated strategies were attempted: (i) Restructuring involving modernisation, rationalisation of capacity; product-autonomy of public enterprises with privatisation on a massive scale; (iii) Changes in management practices to promote efficiency; and (iv) undertaking efforts to improve the performance of state level public enterprises.

During the initial years of the Eighth Plan, *i.e.*, during 1992-93 and 1993-94, the annual growth rates attained were limited to 2.3 per cent and 6.0 per cent respectively. But in 1994-95 it recorded an impressive 8.6 per cent and in 1995-96, industrial production reached the growth rate of 11.7 per cent. In the year 1996-97, it came down to 5.6 per cent.

Ninth Five-Year Plan

The Ninth Five-Year Plan (1997 – 2002) envisaged an annual growth rate of 8.5 per cent in theindustrial sector; but in the initial years of the plan, i.e., during 1997-98 and 1998-99, this sector was able to record only 6.6 and 3.5 per cent respectively. In 1999-2000, the growth rate of industrial production was only 6.7 per cent and in the last year of the Ninth Plan, *i.e.*, 2001 – 2002, it declined to 2.4

per cent, due to negative growth-rate in mining, manufacturing and also electricity.

Tenth Five-Year Plan

A sum of Rs. 58,939 crore was envisaged for the industry in the Tenth Plan with a view to achieving 8 per cent growth-rate. This is rather difficult, as the industry had to face lot of strong international competition, the reason being that quantitative restrictions on Indian imports had been removed with effect from April 1, 2001. As a result there would be openness in Indian economy. The private sector companies and public sector companies that have been privatised, should prove themselves more efficient and competitive.

Changes in pattern during the Plans

Important changes have taken place in the industrial pattern during the period of planning. They are:

(i) Building up of infrastructure for substantial industrial development of the economy;

(ii) The share of the industrial sector in G.D.P has increased over the planning period. The share of the industry in G.D.P. has increased from 15.1 in 1950-51 to 24.4 per cent in 1980-81 and to 27.5 per cent in 1994-95 (at 1980-81 prices);

(iii) *Building up of heavy and capital goods industries:* Structural shift, during the second Plan, on the Mahalanobis model had enabled the economy to have capital goods industries with a strong industrial base. A wide range of engineering goods, iron and steel, metals and metal based products are now produced within the country itself. Dependence of other countries for capital goods has considerably declined.

(iv) *Rapid growth of consumer durables:* Due to liberalisation policies of the government, in the field of industry, trade and commerce in recent years, the output of consumer durables has expanded at a faster rate

(v) *Emergence of public Sector:* Before planning, in the pre-independent days, there was no public sector worth the name. The number of public sector units at the commencement of First Plan was only 5 with a total capital of Rs. 29 crores. Due to advent with a total capital of Rs. 1,59,307 crores. This is really a marvelous expansion. Further, public sector enterprises, non-ferrous metal industries, fertilizers and communication equipment, etc.

Features of Industrial Growth

A glance of the profile of industrial growth in India reveal certain positive and good features, as well as negative and bad features. Let us briefly study those features of industrial development:

(i) Industrial Production in India had been very impressive and satisfactory. Since the introduction of planning process, industrial production had increased more than five times; and its contribution to the gross domestic product had

come up to 16 per cent. Industrial growth-rate has also exceeded the population growth-rate of 2.2 per cent. Compared to pre-independence growth-rate or barely 2 per cent, the present growth-rate is fairly impressive.

(ii) Another commendable feature of industrial growth is its modernization. The profile on industries shows that there has been a fundamental change in the structure of industries from traditional to modern. At the time of independence, India had only a few consumer-goods industries like cotton-textiles and sugar, though there was Iron and steel industry under private sector. The development in engineering industries was very minimal. Now, there is considerable diversification of industries. Traditional and consumer-goods industries are no longer considered as very important as before. The weightage given to these industries in the index of industrial production had come down from 47 per cent in 1956 (base 1956) to 12.3 per cent is 1980-81 (base 1980-81). On the other hand non-traditional engineering industries have acquired greater weightage in the index of industrial production from 8.3 per cent to 21.7 per cent during the same period.

(iii) Besides, the industrial base had been strengthened with preference to basic and capital-goods industries. India has now made rapid progress in steel, engineering, cement and petroleum. The healthy development towards 'self-reliance' in industries is highly commendable. The country has become self-sufficient in many nation-building commodities and dependence on import of machinery and fertilizer has been considerably reduced. We are able to produce many durable consumer articles like bicycles, fans, TVs, etc., for export.

However, the industrial scene exhibits some negative and bad features as well. These are as follows:

(i) The growth-rate of industrial production exhibits marked decline since the seventies of 20th century. Though the growth-rate was very impressive till 1965 to an average level of 10.4 per cent, it had been declining continuously to a level of 4 per cent.

(ii) Another disquieting feature of Indian Industries is the large scale inefficiency plaguing almost all industries. This is evident from the following three important facts: (a) Declining productivity in industries and high costs of production. In some industries, the cost of production is three or four times more than the world cost and prices. (b) Existence of large unused capacity in industries. In some industries like steel casting, coal machinery, cement mill machinery and cycle tubes, etc., the extent of under-utilization of capacity is as large as 65 per cent. This results in serious consequences leading to unethical practices and shaddy deals. In many cases industrialists sickness prevails the industrial scene of the country due to various causes resulting in poor production and accentuating unemployment problem.

(iii) In industrial development, there has been unequal disbursement leading to regional imbalances. According to annual survey of Industries relating to Factory sector in 1987-88, more than 80 per cent of industrial activities were centred in states like Andhra Pradesh, Bihar, Gujarat, Maharashtra, Tamil nadu, M.P., Karnataka and West Bengal and Uttar Pradesh. The contribution of these States to gross output was 80 per cent. Of these nine States, the most developed ones are Andhra Pradesh, Tamil Nadu, Gujarat and Maharashtra. This leads to gross inequalities.

(iv) Further, it is criticised that Indian industries produce only little wage goods and they are incapable of producing goods for mass consumption For example, Manufactured wage-goods like cotton-textiles, vegetable oils and sugar are always short in production and supply. Another criticism is that employment generation in the large-scale industries is very meagre.

Taking all the factors into consideration, we have to say that India is still industrially backward. Though industrial development is satisfactory, it is not that much as to change the agrarian character of the economy.

Eleventh Plan (2007-12) During Eleventh Five Year Plan targeted growth of industrial production is set at 10 percent per annum and manufacturing sector growth target is set at 12 percent per annum. However, in the wake of global recession, the government is contemplating a moderation in these rates.

Overview of the 12th Five Year Plan (2012 - 2017)

The plan envisaged the following course of action for achieving higher growth in agriculture sector :

1. Faster, More Inclusive and Sustainable Growth.
2. Twelfth Plan Strategy. There are Short Term and Medium Term Challenges;

   Short Term : Reversing the current growth slowdown : 5.5 percent in 2012-13 and to achieve 6.5 to 7 percent in 2013-14.

   Longer Term : Take initiatives to achieve high growth. This requires accelerating from 5.5% in 2012-13 to over 9% in last two years. Inspite of the global situation this has to be achieved.
3. Growth must be both rapid and inclusive. Inclusiveness is a multi-dimensional concept and it warrants Reduction of poverty Improvement of regional equality across states and within states. Improving conditions for SCs, STs, OBCs, Minorities so as to Generate attractive employment opportunities for youth Close gender gaps.
4. *Revising the Targets, for various macro economic variables like:* Average GDP Growth of 8 percent. Agriculture Growth of 4 percent. Reducing poverty by 10 percentage. Generating 50 million employment opportunities. Eliminating gender and social gap in education. Reducing Infant Mortality Rate to 25, Maternal Mortality Rate to 100 and TFR to 2.1. Increase

infrastructure investment to 9% of GDP. Drive to realize universal road connectivity and access to power for all villages. Access to banking services for 90 percent households. Major welfare benefits and subsidies using Aadhaar card.

5. **Strategy for Achieving Inclusiveness.** There are two routes to inclusiveness:
   (a) Expanding income and employment opportunities by achieving higher growth
   (b) Targetting poor groups with government pro-poor programmes. Both are important. Twelfth Plan combines the pro-poor programme approach with efforts to get a growth pattern which is faster and inherently more inclusive. Two routes are mutually interdependent. High growth generates more revenues, to finance inclusiveness programmes
6. Macro-Economic Challenges in Achieving High Growth. Higher rate of investment, especially in infrastructure. Domestic savings must increase to reduce the investment saving gap with which Current Account Deficit is controlled. To eliminate government dis-savings fiscal deficit must be reduced. Containing Growth of subsidies. As 75% of the investment in the economy is private investment (household plus corporate), the Centre and the States have to encourage private investment. Infrastructure, especially quality of power, and availability of skills is critical.
7. *Effectiveness of Plan Programmes:* Twelfth Plan sets ambitious targets for Flagship Programmes in areas of Health, Education, Rural infrastructure, Livelihood Development etc. Focus is needed on both the quantum of expenditure and also the effectiveness in terms of results. Improving the implementation at the state level through flexible policies by providing 10% flexi-fund within each scheme for innovations.
8. *Energy:* 8 percent GDP growth requires 6 percent growth in energy supply from all sources. Our fossil fuel resources are limited, so import is already high. Non conventional sources of energy like : Wind power, Solar power and tidal power.
9. *Water :* Management of water resource is a major challenge. Estimates of water availability have been optimistic. Twelfth Plan proposes modified AIBP and expanded Watershed Management Programme. Water sector needs better Regulatory Framework New Groundwater Law. Water Regulatory Authorities in each state National Water Framework Law. Agriculture accounts for 80% of water use at present, must shift to more water efficient agriculture practices. Manage urban and industrial water demand through water recycling and rationalise user charges.

10. As the 12th plan target for growth is 8% of inclusive growth, various difficult policy decisions are necessary both at the state and central level. If only less than this growth rate is achieved then the government would not be able to realize the vision it has for the country.

(**Ref** : *General Knowledge Today daily, E magazine*)

Review Questions

Section - A

1. Define the term 'Infrastructure'.
2. What are key Industries?
3. What are the requirements for industrialisation at the early stages?
4. What is the essential difference between 'Agriculture' & 'Industry'?
5. What are the three important effects of industrialistion?
6. What was the share of investment for industries in First Plan?
7. What was the targeted growth rate of industry in First Plan?
8. How much was spent in the industrial sector during Second Plan?
9. In which plan period was Bhilai Steel Project started?
10. What was the growth rate of industrial sector in Seventh Plan?

Section - B

1. Explain the term 'Industrialisation' of a country?
2. What are the social consequences of industrialisation?
3. State the good and bad features of industrial growth in India.
4. Write a note on 'Transfer of surplus labour' from 'Agriculture'
5. What are the effects of indsutrialisation?
6. Is industrialisation 'evolutionary' or 'revolutionary'?
7. State about industrial development in the Eighth Plan.

Section - C

1. Analyse and Discuss about the role of Industrialisation?
2. Discuss in detail about the growth-rate and structural changes of Indian industries since the commencement of planning.
3. Discuss about the effects of industrialisation.
4. Starting from First Plan, briefly discuss about the industrial development in India during the Planning period.
5. What are the features of industrial Growth?
6. Give an overview of the 12th Five Year Plan.

Chapter 33

①

Unit IV · Part 4

Industrial Policy

The term 'Industrial Policy' refers to the Government's policy towards the establishment of industries, their working and management. It includes all those principles, regulations, rules, etc., which would influence the industrialization of the country and also nationalization of industries.

The industrial development of a country largely depends on the industrial policy adopted by the Government. During the British days, the Government followed a policy of *Laissez-faire* in industrial development and it was only a spectator without actively participating as an entrepreneur. Only during war periods some measures were taken up by the government which were nothing but adhoc measures to meet the exigency. The dawn of independence created new hopes and aspirations in the field of industry and the responsibility of industrialization of the country devolved on the Indian Government which embarked upon a policy of actively promoting the much needed industrialization of the country. Industrial activity in the country since then is carried on the basis of policy statements made by the Government from time to time. The first industrial policy resolution on Independent India was formulated and announced by the Government in April 1948.

Industrial Policy Resolution of 1948

Objectives: The Industrial Policy was designed to achieve the following objectives: *(i)* the establishment of a social order wherein justice and equality of opportunity shall be secured to all the people; *(ii)* the promotion of standard of living of people by exploiting resources; *(iii)* the increase in production both agricultural and industrial; *(iv)* the offering of opportunities to all for employment; *(v)* the need for careful planning Commission; *(vi)* the determination of state responsibility and private enterprise in industrialization and (vii) the regulation of private enterprise.

Classification: The Government classified the industries into four categories: *(i)* State monopolies; *(ii)* Basic and Key Industries; *(iii)* Private industries controlled and regulated by State; and *(iv)* Completely private sector industries.

Defence, arms and ammunitions, atomic energy, strategic industries and railways were brought under the first category, viz., complete state control. Basic and key industries, viz., iron and steel, aircraft manufacture, ship building, telephone, telegraph and wireless apparatus, and mineral oils were brought under state control while starting new undertakings, and the existing units were allowed of continue in the private sector. The Government would consider nationalization of basic and key industries in private sector after 10 years. Twenty important industries, such as cotton textiles, sugar, cement, paper, heavy chemicals, etc., were brought under the third category. These industries under private sector were subjected to state control and regulation. All other industries were brought under private sector without any state interference.

Cottage and small industries were allowed to play their part in the economic development of the country co-operatives.

Features

1. The first feature of the Industrial Policy Resolution, 1948 is the middle course it had taken between *laissez-faire* and collectivism. Indian industries saw the dawn of 'mixed economy' and the participation of the public and the private enterprises in specified fields of production.

2. The policy underlined better labour-management relations and also fair deal to the labour.

3. Policy regarding foreign capital was also clarified. As a rule, the major interest and ownership and control was to be in Indian hands.

4. An assurance of a sound tariff policy designed to prevent unfair foreign competition was forthcoming.

There were a number of factors behind this police resolution. The leaders of the country had made many promises to the people when they were carrying on the national struggle. So, when they assumed power after independence, they had a moral responsibility to change the face of India, particularly in the industrial sphere. There were many lacunae in the industrial sphere, such as predominance of consumer industries and inadequacy of basic industries. The loss of rich resource at partition also turned the attention of the Government to these. Conflicting statements of Ministers and many other had created a confusion in the minds of investors and industrialists. *The Industries Conference* held in December 1947 demanded that the Government should have a definite plan for the demarcation of the roles of the private and public sectors.

The Industrial Policy Resolution of April 1948 had a mixed reaction. Some welcomed it as a great step towards achieving a socialistic pattern of society. Some attacked the policy as 'one-sided' and biased against private enterprise.

33.3 **Defects of the Policy**

I. Damage to Private Enterprise: The policy resolution of 1948 did the greatest damage to private enterprise in our country. The state undertook responsibilities for a large part of the country's industrial development; but it did not have necessary resources in finance, technical and managerial man-power.

The limit of 10 years prescribed to consider nationalization in the policy is the biggest drawback which had seriously affected the growth of private enterprise. By giving enormous powers to the state, the security of private enterprise was unnecessarily reduced. The threat of nationalization as a bogey of the 'mixed economy' cut at the very root of 'mixed economy; and the spirit of co-ordinated and concerted attempts of the private and public sectors. The Industrial Policy created a doubt and suspicion in the minds of private entrepreneurs.

Strictly speaking, the private sector was not precisely allocated its field. The policy resolution made the vast industrial field open for the State with the exception of a small residue. It was tantamount to a 'dog in the manager' policy.

(ii) Lack of Co-ordination: The Industrial policy when put to actual practice exhibited lack of co-ordination between the Union Government and the State Governments. Poor experience, lack of technical know-how and inadequate integration between policy and procedure in public sector, the misdirected enthusiasm of nationalization without proper climate and resources, the suspicion of the private sector, etc., all resulted in the slow and poor development of industries.

Already some State Governments were following policies which ran counter to the Industrial policy of 1948. Some of the them had taken over electricity concerns. Some of them had also nationalized road transport.

(iii) Evils of Bureaucracy: The 'mixed economy' instead of taking the merits of socialism and capitalism, exhibited the evils of the two. The evils of nepotism, favouritism, red-tape, bureaucratic top heavy administration, etc., percolated in all spheres of industrial undertaking of the State.

By and large, the Industrial Policy Resolution of 1948 was the outcome of emotion soon after independence rather than of scientific reasoning. So, within two years after the announcement of this policy, the Government made a clarification that it would not nationalize all the basic and key industries on ideological grounds.

Industrial Policy Resolution of 1956

The Industrial Policy was revised in 1956. There were a number of circumstances which made this change necessary:

1. Since the announcement of the 1948 industrial policy, the Constitution of India was enacted, guaranteeing certain fundamental rights to the citizens and laying down the directive principles of state policy;

2. The Avadi Congress Session in 1955 elaborately described the cherished goals of the society and accepted the socialist pattern of society as one of the objectives. Parliament also accepted this as the objective of social and economic policy;
3. The launching of the Second Plan, which was mainly an industrial plan, and the feverish haste and unbounded enthusiasm of the Government for quick industrialization and nationalization drove to the necessity of a new Industrial Policy Statement in the year 1956.

Objectives and Outlines of Industrial Policy Resolution of 1956

The objectives and outlines of Industrial Policy Resolution of 1956 were:

(i) Reduction of disparities in income and wealth; (ii) Prevention of monopolies and concentration of economic power; (iii) Building up a large and growing public sector; (iv) Developing heavy and machine making industries; and (v) to accelerate the rate of industrialization and economic growth.

In order to realize these objectives, the policy designed these broad outlines:

1. State should assume predominant role and responsibility in industrial undertakings by starting and developing new industries and affording necessary infrastructure.
2. Industrial units in the private sector should be fitted into the framework of social and economic policies of the state.
3. State trading should be increased and more sphere of business activities should be brought in its fold.
4. Cottage and small industries will be supported as they provide immediate large scale employment, ensure more equitable distribution of income, and facilitate an effective mobilization of resources.
5. More attention will be paid to the organization of industrial co-operatives.
6. Disparities in the levels of employment among different regions should be reduced by extending power and transport facilities to backward areas.
7. Managerial and technical personnel should be provided to meet the growing needs of the public sector and small industries by introducing elaborate training facilities.
8. Proper and increased incentives will be provided for all those engaged in industries for improving working and living conditions raising the standard of efficiency by joint consultation.
9. Public sector undertakings ought to set an example and serve as a model.

New Classification of Industries according to the Policy

Under the revised policy of 1956, the industries were reclassified into three categories, viz., Schedule A, Schedule B, and the rest of the industries.

Under Schedule A, seventeen industries were listed and made purely state-owned. Though the existing private units were not disturbed, future development of these was the exclusive operation of the public sector. Twelve industries were brought under Schedule B. These twelve were brought under mixed sector where the industries would be progressively owned by the state, and private enterprise would have the opportunity to develop singly or in participation with the states. All the remaining industries or residual industries were brought under the third category, viz., private sector. But the Government retained the right of starting its own unit at any time.

Schedule A (State)

1. Arms and Ammunitions.
2. Atomic Energy.
3. Iron and Steel
4. Heavy casting and forgings of iron and steel.
5. Heavy machinery and plant required for iron and steel production, for mining, machine tool manufacture, and for such other basic industries as may be specified by the Central Government.
6. Heavy electrical plant.
7. Coal and lignite
8. Mineral oils.
9. Mining of iron ore, managanese ore, chrome ore, gypsum, sulphur, gold and diamonds.
10. Mining and processing of copper, lead, zinc, tin, etc.
11. Minerals specified in the schedule to the atomic energy.
12. Aircraft
13. Air transport
14. Railway transport
15. Ship building
16. Telephones, cables and wireless apparatus
17. Generation and distribution of electricity.

Schedule B

1. All other minerals except minor minerals as defined in section 3 of the Minerals-Concession Rules, 1949.
2. Aluminium and other non-ferrous metals.
3. Machine Tools
4. Ferro-alloys and tool steels
5. Basic and intermediate products required for chemical industries such as the manufacture of drugs, dyestuffs and plastics.

6. Anti-biotics and other essential drugs.
7. Fertilizers, synthetic rubber, carbonization of coal, chemical pulp, road and sea transport.

Other Industries

All the remaining industries will be in the third category, viz., private sector, and the state will help this sector in accordance with the programmes formulated in the Five-Year Plans.

Though the industries were reclassified in the aforesaid manner it must be noted that the division into separate categories does not imply that they are being placed in water-tight compartments. It will be open for the State to start any industry not included in schedule A or B when the needs of Planning require such a step. In the same manner, even privately owned units may be permitted to produce anything falling in schedule A if situation warrants that.

Comparison between 1948 and 1956 Industrial Policies

(i) Both the policies emphasized the increasing responsibility and participation of the Government in the country's industrialization programme; but the 1956 policy gave a wider field to the public sector.

(ii) The 1956 policy was more clear so far as the private sector was concerned. The classification of industries between private and public sectors was made flexible;

(iii) The programme of overall nationalization of industries had been abandoned in the 1956 policy.

Criticism of the 1956 Industrial Policy

The Industrial Policy of 1956 increased the scope of Government participation in industries and reduced the part of private enterprise. This was criticised as unfair. Eugene Black, president of the world Bank observed that it "could only result in imposing heavy additional burdens on the already over strained financial and administrative resources of the public sector." Dr. John Mathai criticised that the order of emphasis should be the reverse and free enterprise should be given greater scope, and state enterprises should confine to cases where they were absolutely indispensable. Dr.C.H. Bhaba went to the extent of saying that the "policy statement is a beginning which will ultimately lead to the extinction of entrepreneurial activities in our country."

Whatever might be the criticism, the Government had committed to rapid industrialization, which could not be had without enlarging the sector.

Industrial Policy Statement of July 1980

In 1980, when the Congress (I) Government came back to power with Indira Gandhi as Prime Minister, the Industrial Policy of the Government was restated on July 23, 1980. This new policy was in fact only an undated and refurbished version of the 1956 Industrial Policy Resolution. This policy statement of 1980 reiterated the basic policy Resolution of 1956.

The policy emphasised the commitment of the government towards rapid and balanced industrialization of the economy so as to benefit the common man in the form of increased availability of goods, higher per capita income and larger employment generation. The objectives of the new policy statement of 1980 were as follows:

(a) Facilitating an increase in industrial production through optimum utilization of installed capacity;

(b) Rapid and balanced industrialization of the country and increasing the availability of goods at reasonable prices.

(c) Solving the problems of major industrial inputs like energy, transport and coal;

(d) Correcting of regional imbalances through a preferential treatment to agro-based industries, and promoting optimum inter-sectoral relationship.

(e) Promoting economic federalism through co-ordinated development of small, medium and large enterprises;

(f) Promotion of export-oriented and import substitution industries; and

(g) Higher employment generation.

In order to achieve these objectives, the policy statement reiterated its faith in public sector. At the same time it emphasised the vital role of private sector in pursuing the goal of self-reliance and modernization.

To generate more employment and also production, it was decided to permit and recognize additional capacities in industries over and above the originally endorsed capacities. Further, stress was laid on the improvement of technology and allocation of funds for research and development.

Several steps were initiated to implement the policy statement of July 1980. In order to promote the growth of small-scale industries, investment limits for small-scale sector had been raised from Rs. 10 lakhs to Rs.20 lakhs. The investment limits for ancillary units had been increased from Rs.15 lakhs to Rs. 25 lakhs. Industries had been regularised. These included basic industries and those producing mass consumption goods not reserved for the small sector, provided the firms were not units to which the Monopoly and Restrictive trade practices Act. 1969, or the Foreign Exchange Regulation Act, 1973 applied.

In order to encourage production for export, exemptions had been given in the locational policy and production for export had been excluded to computing licensed capacity.

To encourage production of alternative sources of energy, the Government delicensed the manufacture of equipment for exploitation of such source of energy like solar insulation, wide power bio-mass including bio-gas, geo-thermal energy, tidal power and sea power. Thus the Industrial Policy Statement gave ample scope for the private sector to expand its activities and even set up industries in the sector reserved for the state in 1956 Resolution.

We have studied the Industrial Policy of the Government of India since the attainment of independence till eighties. In the earlier part of nineties many sweeping changes were announced in the Industrial Policy of the country. Till then the policy statements from 1956 to the beginning of 1990 were only statements of minor modifications and by and large, they were based on 1956 policy resolution. The Industrial policy announced in 1991 made a fundamental departure from the previous policy statements. Before studying the New Industrial Policy Statement of 1991, we have to understand the *Industrial Licensing Policy* of the Government of India, adopted since 1951. Then only, we can clearly understand the implications of liberalistion and relaxation announced in the New Industrial Policy of 1991.

INDUSTRIAL LICENSING POLICY

A system of industrial licensing was adopted by the Government of India in order to give practical shape to the Industrial policies announced since 1948. An industrial licence is a tool and also an instrument activities of the economy, in order to give proper direction to ensure industrial development in accordance with the policy statement. An industrial licence is only a written permission from the government to an industrial unit manufacturing goods. The written permission (licence) would contain all particulars regarding the location of the unit, goods to be produced, the capacity of the industrial unit etc. Any change in the Industrial Policy would automatically call for a corresponding change in the industrial licensing policy to enforce the objectives of the industrial policy.

The *overall objectives of industrial licensing policy* adopted during the 40 years were as follows:

(a) Optimum utilization of investible resources; (b) To meet the requirements of the economy on the basis of priorities; (c) to secure balanced development in the country; (d) To prevent concentration of economic power, (e) to stimulate more employment; absorption of agricultural surplus and prevention of urban migration; (f) To achieve optimal balance between public sector, private and small-scale sector; (g) To facilitate improvement in technology and industrial efficiency; and (h) to widen and also strengthen the industrial base of the economy.

Legislative Measures to implement industrial Licensing

The legislative framework for industrial licensing was embodied in different Acts of the parliament at different times. These Acts were: 1. Industries (Development and Regulation) Act, 1951; 2. Monopolies and Restrictive Trade practices Act of 1969; and 3. Foreign Exchange Regulation Act of 1973. In addition to these many adhoc measures were taken to control the industries. Let us briefly discuss about these Acts.

33.9 **1. Industries (Development and Regulation) Act 1951**

Consistent with the Industrial Policy Resolution of 1948, the Industries (Development and Regulation) Act of 1951 was passed which came into force on may, 8, 1952. This was intended to regulate the industries at the time of launching the First Plan of India. The Act gave wide powers to the Government to take up any industrial unit in the private sector after giving due notice. The industries aimed at were those in the first schedule of the Industrial Policy Resolution, 1948. In the first instance 37 industries were covered. In 1953, this number was raised to cover 45 industries. In eighties the number of industries covered increased to 162 which came under the purview of the Act. By an amendment, precious metals like gold, silver and their alloys were also brought within the scope of this Act.

The main provisions of the Act: (a) all existing industries in the scheduled category were required to be registered with the Government; (b) No new industrial unit was allowed to be established, or expansion of the existing unit, without a licence from the Government; (c) The Government could order an investigation of any industrial undertaking, in case of unsatisfactory working or working which would cause serious damage or injury to the consumers (d) The Act empowered the Government to take over the management of any industry which failed to carry out the instructions or the directions issued by the Government.

The Industries (Development and Regulation) Act of 1951 introduced the licensing system to every industrial undertaking which had been defined as follows: "Industrial undertaking means any undertaking pertaining to a scheduled industry carried on in one or more factories by any person or authority including Government". According to the licensing system there were five types of licences; *(i)* Licence for new undertakings; *(ii)* Licence for substantial expansion of existing industry; *(iii)* Licence for producing a new article in the existing productive unit; *(iv)* Licence for shifting; and *(v)* Licence for carrying on business.

The introduction of New Industrial Policy in the year 1991 virtually abandoned the Industries (Development and Regulation) Act of 1951 by abolishing industrial licensing for all projects except for 18 specific groups concerning safety and hazardous nature.

2. Monopolies and Restrictive Trade Practices Act, 1969

The Monopolies and Restrictive Trade practices Act was passed in the year 1969 which came into force from June 1, 1970. According to this Act, a permanent body known as *Monopolies and Restrictive Trade practices Commission* was set up with responsibility of exercising vigilance and preventing the evils of monopoly and unhealthy practices in business undertakings. The MRTP Act, through the MRTP Commission attempted to control the monopolistic tendencies in businesses in the following way by adhering to the following objectives and provisions:

(a) *Controlling the concentration of economic power: (i)* Any undertaking, along with its inter-connected undertakings had owned assets worth more than 20 crores of rupees was brought under the purview of the Act and the supervision of the MRTP Commission. *(ii)* These MRTP companies were required to get prior approval of the Central Government for expansion of the undertaking or for establishment of new undertaking or for merger or amalgamation of an undertaking with any other undertaking. *(iii)* The owners of the MRTP companies were required to get themselves registered with the central Government. *(iv)* The Central Government could order division of any undertaking or separation from any inter-connected undertaking. *(v)* An MRTP company could not acquire more than 25 per cent shares of any public without the permission of the Central Government. *(vi)* If any MRTP company held more than 10 per cent shares in any other company, such shares could not be transferred without the permission of the Central Government.

(b) Controlling Monopolistic Trade practices: Monopolistic trade practices were defined as any trade practice by which the company indulged in distorting competition in the market, abuse of market power in the supply and distribution of goods and charging unreasonably high prices and also limiting technical development or deterioration of the quality of the product. The Central Government, on the recommendations made by the product. The Central Government, on the recommendations made by the MRTP Commission could order (i) regulating production, supply and distribution of the product and also fixing the terms of sale; (ii) prohibiting the company from adopting any commercial policy or practice that would endanger competition in production and supply or distribution of goods and services; (iii) fixing quality standard for the goods produced by the company; and (iv) also regulating the profits derived by the company from the production, storage supply and distribution of the product or services.

(c) Restrictive Trade Practices: A restrictive trade practice was defined as one which limited the conditions of selling and buying, and thereby restricting competition. For example, a buyer (wholesaler or retailer) might be required by the monopolist buy from a specified supplier, but limiting the number of buyers to whom he had to sell. The producer might dictate prices on which the goods were to be sold to the public. The Act mentioned a number of such type of agreements falling under the purview of restricted trade practices' and insisted that these should be duly registered with the Registrar of Restrictive Trade Practices. The Act also gave powers to the MRTP Commission to inquire into such practices and give directions either to discontinue such a practice or modify the same as per the discretion of the Commission.

(d) Unfair Trade Practices: An unfair trade practice is one which attempts to play 'fraud' on the consumers by making tall and false claims about the description of the product, for the purpose of trapping the consumers.

This might be in the form of misleading advertisements, false representations regarding quality and quantity, sale-baits of gifts, contests and lucky-draw etc. To prevent such types of unfair trade practices, the MRTP Commission was empowered to enquire into such matters and give proper directions.

The MRTP Commission shall have the powers of a court under the code of Civil Procedure in investigating and deciding matters relating to monopolistic and unfair trade practices.

With the introduction of New Industrial Policy in 1991 and amending the MRTP Act of 1969, the Act was made applicable to Government undertakings also; the MRTP companies are not now required to get themselves registered with the Central Govt; but the Act has lost its teeth the MRTP Act is only RTP Act now.

3. Foreign Exchange Regulation and Management

Industrialization of the country depends on the extent of investments made in the economy for starting many projects. Resources in the form of money and material are very essential for development. Capital for investment may be forthcoming within the country or it may also flow from foreign countries. Non-Resident Indians would be interested in investing in the Indian ventures. Further, industrialists and big businessmen would have earned lot of foreign exchange for further investments. It has become an imperative need for the Governments to regulate the flow of foreign capital and also stimulate investment for the purpose of industrialisation and economic development.

During the Second world war period, the then Government passed many ordinances regulating the foreign exchange transaction. In 1947, a full fledged Foreign Exchange Regulation Act was passed by the Government of India. In the year 1973, the Act was modified and the Foreign Exchange Regulation Act of 1973 was passed. The term foreign exchange includes foreign deposits and balance payable in foreign currency and also foreign securities.

Before studying about Foreign Exchange Management Act (FEMA) of 1999, let us briefly study about Foreign Exchange Regulation Act, 1973 which was repealed.

Foreign Exchange Regulation Act, 1973 (FERA) in brief

The primary objectives of FERA were as follows:

1. Conservation of Foreign Exchange Resources.
2. Ensuring that all foreign exchange accruing to the country were properly accounted for.
3. Ensuring proper utilisation of the foreign resources of the country for the common good and economic development.

Main Provisions of the Act

The Act empowered the Reserve Bank of India and also the Central Government (i) to exercise control to see that the foreign exchange earned by the exporters were properly accounted and realised; (ii) to control the holding of foreign exchange in any form and making of payments in foreign exchange; (iii) to frame appropriate rules and regulations regarding foreign exchange transactions and issue proper directions in this matter to all the banks and travel agencies.

The Act had the following provisions

(i) Investment in India by foreign company had been restricted upto 40 per cent of non-resident interest. Under the New Industrial Policy of 1991, the non-resident interest had been raised to 51 per cent.

(ii) Permission of Reserve Bank of India was essential for continuing any trading or commercial activity acquiring industrial interest in India.

(iii) The Reserve Bank of India was empowered to authorise dealers in foreign exchange and dealings in foreign exchange would not be done except through authroised persons and agencies by the RBI.

(iv) All export, earnings in foreign exchange had to be deposited with the RBI and it was unlawful to hold these earning abroad.

(v) Over-invoicing of imports is prohibited.

(vi) Assets held by non-residents could not be transferred, assigned pledged or charged except in accordance with the permission of the RBI.

(vii) No person in India was allowed to hold or transfer property outside India without the permission of the RBI; and the Reserve Bank of India could direct a person to sell such property and acquire the proceeds through an authroised person or dealer.

(viii) Owners of immovable property outside India, foreign exchange and foreign security outside India should submit returns to the RBI

(ix) The Act prohibited any person from overstaying abroad or visiting any country not authroised or approved by the RBI and no foreigner could be employed in India on salary or wages by any Indian without the permission of RBI.

(x) Finally, the act also provided adequate powers to the Government to call for information, to search suspected persons or to seize documents or search any premises in connection with the enforcement of the Act.

After the liberalisation measures announced in the New Industrial policy of 1991, the Government promulgated an ordinance to amend FERA with immediate effect. The ordinance removed a large number of restrictions on companies with more than 40 per cent no-resident equity. It removed FERA controls on Indian firms setting up joint ventures abroad and allowed Indians to hold immovable property abroad, subject to certain conditions stipulated by the RBI. Further concessions given were as follows:

(i) Companies with foreign share holdings could increase foreign equity to 51 per cent by remittances in foreign exchange in the 35 high priority industries.

(ii) FERA companies (other than banking companies) wanting to borrow money need not get the permission of the RBI.

In spite of several changes in the Foreign Exchange Regulation Act, there had been a long cry from the business and industrial circles for the repeal of this draconian and obnoxious law to attune the economy with economic liberalisation. After a through review, in August 1998, the Government introduced two bills to replace FERA. The result was *Foreign Exchange Management Act* (FEMA) and the prevention of Money Laundering Act (PMLA). But, the business circles wanted to dilute the provisions of PMLA which they described as "another FERA through the back door". Hence, the Government notified FEMA 1999 to replace FERA and PMLA had been referred to a Select Committee of the Rajya Sabha, although it has been passed by Lok Sabha. Though the Government's earlier plan to notify FEMA along with PMLA, it dropped the passing of twin legislation, as it could not reconcile with several severe panelties in PMLA. This was because, a distinction was being made between crimes which were technical in nature and for which the ends of justice could be met through imposition of pecuniary penalties only. These were to be dealt with FEMA. The other major crimes of drug and arms running, as well as gross financial manipulation were to be dealt under PMLA. which would have strict penalities, including imprisonment. Hence, the Government notified only FEMA without PMLA.

Foreign Exchange Management Act., 1999

The Foreign Exchange Management Act (FEMA) 1999 had come into effect from June 1, 2000, replacing the Foreign Exchange Regulation Act (FERA). But FERA too would continue to be in operation for two years, that is till May 31, 2002. The two-year sunset clause for FERA had been incorporated in the FEMA legislation in order to allow the Enforcement Directorate to investigate and make ready all FERA violations cases for prosecution within that period. The Directorate, therefore, had two year's time to investigate and charge-sheet all those who had been accused of violating various provisions of the FERA. Further, any FERA violation cases which came to notice within this two year period would also be dealt with under the FERA legislation.

The differences between the objects of FERA and FEMA

According to Reserve Bank of India, "the object of Foreign Exchange Regulation Act, 1973 was to conserve foreign exchange resources, whereas the object of the new Act FEMA is to facilitate external trade and payments and to promote orderly maintenance of the foreign exchange market in India".

Further, a person resident outside India is permitted to hold shares, securities and properties acquired by him while he/she was resident in India. A person resident outside India is also permitted to hold such properties inherited from a

person resident in India. The exchange drawn can also used for purposes other than for which it is drawn provided drawl of exchange is otherwise permitted for such purpose.

Some Salient Features of FEMA

As against FERA, FEMA has substantially liberalised several things to facilitate external trade and payments. The residents now going abroad for business purposes or for participating in conferences/seminars need not seek the RBI's permission to avail themselves of foreign exchange upto 25,000 dollars per trip irrespective of the period of stay; the basic travel quota has been increased to 5,000 dollars from 3,000 dollars per calendar year; gifts have been increased to 5,000 dollars from 1,000 dollars; employment to 5,000 dollars from 2,500 dollars; emigration to 5,000 from 3,000 dollars and maintenance of close relatives at 5,000 dollars.

The Exchange Earners' Foreign Currency (EEFC) account holders and Resident's Foreign Exchange (RFC) account holders are permitted to freely use the funds held in EEF/RFC accounts for payment of all permissible current account transactions.

The rules for foreign investment in India and Indian investment abroad are also made comprehensive and transparent. Now the rules permit Indian companies engaged in certain specific sectors to acquire shares of foreign companies engaged in similar activities by share swap or exchange through issue of ADRs/GDRs upto certain specified limits.

The new Act repeals the old FERA; but any offence committed under the old Act which is taken cognisance of by a court within two years from the repeal of FERA would be dealt with under the provisions of the old Act, as indicated earlier. Further, FEMA is a civil law unlike FERA. Contravention under FEMA will be dealt with through civil procedures. Unlike in FERA, the burden of proof under FEMA will be on the enforcement Agency and not on the implicated FEMA describes an elaborate redressal machinery for total justice and fairness to the implicated, while deciding on the question of contravention.

Application of FEMA may be seen broadly from two angle, namely, capital account transactions and current account transactions; the former relates to capital movement, i.e., transaction in property and investment, as well as lending and borrowing. There are seven types of current account transactions which are totally prohibited. These include transactions relating to lotteries, football pools, banned magazines, etc.

Other Types of Control

Besides, the Government of India was exercising control over the related activities of industries so as to regulate the process of industrial licensing more effective. The Capital Issues Act, 1956 was intended to control and channelise investment in priority sectors. Under this Act, permission from the Central

Government was necessary for the issue of capital and other related matters. However, this Act was abolished in the year 1992 and now companies are free in the issue of equity and other related matters. The companies are now only exempted to follow the guidelines laid down by the *Securities and Exchange Board of India (SEBI)*.

The Imports and Exports (Control Act of 1947 empowered the central Government to promulgate orders relating to the control of imports and exports by licensing them under a designated authority. The power of issuing licence has been vested with the Director General of Foreign Trade. The issue of licenses depended on several factors like availability of foreign exchange, essentiality of the commodity for the producing unit and also the role of industry in the national context.

Essential Commodities Act of 1955 empowered the Central government to control and regulate or prohibit the production, distribution, transport and trade, consumption or storage of a large number of commodities and also prescribe their prices and even take over the stocks. To control and promote specific commodities, there are a number of enactments like the Coffee Act. 1982, the *Coir Industry Act 1983*, the *Tea Act 1953*, the *Rubber Act 1947*; and the *Sugar (Regulation of Production) Act*. 1961. All these Acts attempt to promote, protect and regulate the trade by fixing quotas for internal sale and export through the Boards or Competent Authority constituted for the purpose.

Under Essential Commodities Act, a number of control orders have been issued by the Government form the time to time. These are: *(a)* Cement Control order of 1961; *(b)* The Commercial Vehicles (Distribution and Sales) Control order of 1963; *(c)* The Imported Tourists Cars of 1959; *(d)* Scooters (Distribution and Sales) Control Order of 1960; *(e)* The Fertilizer Control order of 1957; and *(g)* The Ethyl Alcohol (Price Control) Order of 1961, etc.

Thus, the industrial licensing system is India was sought to be implemented by means of plethora of supplementary and adventitious Acts, Orders and Controls in different areas of economic activity. Hence, critics vehemently criticized this as Quota-Permit-Licence System.

Review and Reappraisal of Industrial Licensing Policy in India

The philosophy behind industrial licensing was to regulate the overall growth of the economy in such a way as to eliminate sectoral and regional imbalances, and at the same time, channel the scarce resources available into activities of importance. It was expected that industrial licensing would ensure industrial development in accordance with plan priorities, prevent over-investment, and encourage new entrepreneurs with meagre means and no influence. It should facilitate regional dispersal of industries with increased production and higher exports.

But the experience of the economy since the passing of Industries (Development and Regulation) Act, 1951 had not been very encouraging. No doubt, industries obtaining licences had raised production level, generated more employment opportunities and earned considerable foreign exchange. However, the various growth objectives remained unfulfilled. Further there were criticisms about the working of industrial licensing system.

1. The licensing system had applied more of restrictive influence rather than accelerating the wheels of economic growth. It had not been able to ensure development according to plan priorities because even in non-essential industries, licences were issued in excess of capacity targets.

2. The system had enabled only influential parties and large business houses to obtain permission to pre-empt capacities. According to the findings of R.K. Hazari who was asked to review to working of the industries Act of 1951, many leading big and influential houses followed the practice of putting in a number of applications houses followed the practice licensable capacity. This is more so in the house followed the practice licensable capacity. This is more so in the house of Birlas. They were able to achieve the foreclosure of licensing capacity because they kept themselves informed about the procedure, changes in rules and regulations, kept their office at Delhi and put their application at the earliest opportunity.

3. The system had not struck at the root of regional imbalance. In the state-wise distribution in licences the disparity could not be bridged and the industrially backward states have to remain backward. During the period 1956 to 1966, 17,310 applications for industrial licences were received, of which 10,016 were approved. During this period, the four industrially advanced States of Maharashtra, west Bengal, Gujarat and Tamil Nadu accounted for 59.3 per cent of applications and 62.42 per cent of the licences issued.

4. The absence of follow-up action in licensing system was another big lacuna which defeated the very objective of the systems. It was believed that a licence was only a passport helping the entrepreneur to apply for various other sanctions and permissions to establish his industry. The authories concerned were not aware of the total investment made, foreign exchange commitments, whether the full capacity of the industry had been utilized or not, etc.

Dutt Committee on Industrial Licensing

The Government of India appointed in July 1967 the Industrial Licensing policy Inquiry Committee under the Chairmanship of S. Dutt to study the working of the licensing system in detail and other suggestions. The Committee inquired into the working of the industrial licensing system over the decade 1956 to 1966 and brought to light several defects, deficiencies and malpractices. The Committee submitted its report in detail in 1969.

The Committee examined in detail 73 large industrial houses and found out that the percentage share of 30 houses in the investments proposed in their applications was appreciably higher than their share in the paid up capital of the corporate sector in 1968-69.

Secondly, the committee found out that in the case of 51 products the large houses controlled 50 per cent or more of the licences. Disproportionate control of capacities thus emerged from the licences issued. A few industrial houses were able to manipulate things in their own favour in collusion with some higher authorities in civil administration and public life.

Thirdly, the Committee observed that more than 31 per cent of the licences issued in the ten-year period (1956-1966) were not implemented. This non-implementation had serious impact on industrial growth.

Fourthly, the Committee observed, that some house managed to obtain large number of licences, but implemented only a few obtained more licences for the same product without implementing those already obtained; and installed and produced more than the authorized capacities. Such methods and devices opportunities for pre-emption.

Fifthly, some houses indulged in submitting multiple applications for the same product through various firms under their control.

Sixthly, because of the aforesaid malpractices, there was a high rate of rejection on the ground that the targeted capacities had already been licensed. Thus, new entrants to the field were barred and denied opportunities of obtaining licences.

Finally, the committee also observed that the public sector financial institutions also favoured big business houses in granting credit and loans. According to the Committee, 20 big business houses were able to get the bulk of financial assistance from public sector financial institutions. There was deplorable lack of co-ordination among these financial institutions, which had been revealed from the fact that one of the large business houses obtained financial help from several institutions at the same time. Of the financial assistance granted in the form of loans by these institutions, nearly 44 per cent had gone to 73 big business houses and about one half of that had gone to 20 very large houses.

The Dutt Committee recommended a system by which licensing could be made more rational and purposeful. The Committee recommended classification of industries into (i) Core sector, (ii) Small scale sector, (iii) industries producing consumer goods and (iv) the rest of the industrial sector. On the basis of Dutt Committee Report the Government announced a new industrial licensing policy of February 18, 1970.

Industrial Policy and Industrial Licensing, February 1970

The main features of the revised policy were:

1. All industrial undertakings with an investment of upto Rs. 1 crore were to be delicensed.

2. While licensing would be required for new industrial undertakings with an investment of Rs. 1 to 5 crores, the existing industries, in the same investment range, would be delicensed if such industries did not belong to the 20 larger industrial houses as classified by the Industrial Licensing policy Inquiry Committee, and that they did not require more than 10 per cent by way of foreign exchange for imports, and that they were not included in the monopolies Act.

3. There should be a list of 'Core; industries consisting of basic critical strategic industries of the economy.

4. In addition to the 'Core' sector all investment propositions of Rs. 5 crores shall be deemed to be in the 'heavy investment' sector.

5. The existing policy of reservation for the small scale sector (involving investments in machinery and equipment upto Rs. 7.5 lakhs) would be continued and the area of such reservation extended, wherever production in this sector can be expected to grow to meet the demand adequately.

6. In respect of agro-industries, particularly undertaking processing sugar-cane, jute and other agricultural commodities, preference would be given to applicants from the co-operative sector.

The redeeming features of the new industrial policy were (a) for the first time the sphere of licensing had been clearly defined; almost all the important industries had been put into the core sector where detailed plans would be prepared and essential inputs made available on a priority basis; (c) it aimed at curbing monopolies and tried to encourage the middle sector to enter new fields of industrial development hitherto exploited by big business; (d) discouraging of the entry of the big business houses into the delicensed and middle sector would attract new entrepreneurs into this area of production; and (e) the liberal licensing, with institutional finance in the middle sector would prove an added attraction to mediocre entrepreneurs.

This new industrial policy had been subjected to severe criticism also. The restrictions on the growth of the big industrial houses beyond the core sector had not found favour with business community in general. They felt that it would make things easier for incompetent firms. Further, they said that the policy would fail to generate the necessary enthusiasm for rapid industrialization, because it provided a framework for future industrial development, which is not technology-oriented. But it may be pointed out here that efficiency did not always or necessarily increase with the size of the industry.

New Industrial Licensing Policy, February 1973

The Government of India adopted a new Industrial Policy Statement on February 2, 1973. Having the 1956 Resolution as the base, some important amendments were introduced. By the New Industrial Licensing Policy of 1973, the Government accepted the proposal of the Duff Committee for setting up the Joint Sector. The following changes were introduced.

(1) All Industrial units with assets not less than Rs. 20 crores would be deemed to be larger industrial unit as laid down by the Monopolies Act, importance to the national economy.

(2) A list of 19 industries had been notified as core industries of importance to the national economy.

(3) Joint-sector was conceived as a sector in which both the public sector and private sector jointly organized a production activity. Joint Sector would include units which have both public and private investments, and where the state took an active part in direction and control. This was aimed at combining the best managerial expertise available in the country in the public sector. Equity participation by the private sector partner would not normally be allowed to exceed 25 per cent. It envisaged an open corporate structure, the functioning of which should have a degree of accountability to all the important segments, viz., the shareholders, the employees, the consumers, and the community. It was clarified by the Government that in all joint-sector units, the Government would ensure the policies, management and operations and it rejected the plea of J.R.D. Tata that the management should be allowed in the hands of private parties.

4. This policy gave considerable concessions to private sector units and foreign multinationals besides encouraging small-scale and co-operative sectors in the production of ancillaries and mass consumption goods.

New Industrial Policy, 1991 (Economic Liberalisation)

The year 1991 and 1992 were special significance in the Indian Economy, as it was in the transitional stage from semi-controlled and bureaucratic-managed phase to liberalised market-oriented regime. Many economic measures were introduced to achieve the objectives of new economic policies of Government. Of these, the new Industrial Policy Statement is of vital importance, as it forms the centre of all economic policies of the Government. Let us discuss about the New Industrial Policy of 1991 in detail.

The Government of India announced a new Industrial Policy (NIP) on July 24, 1991. The main objectives of the NIP are to build on the gains already made, correct the distortions and weaknesses that might have crept in, rejuvenate the dormant industrial sector, maintain a sustained growth in productivity and gainful employment and attain international competitiveness. All sector are expected to grow and operate in harmony with each other to realise the broad national objectives of industrial development.

The New Industrial Policy aims at bringing out radical changes in the following spheres: (a) Industrial Licensing (b) Foreign investment (c) Foreign Technology Agreements (d) Public Sector Management; and (e) Monopolies and Restrictive Trade practices Act.

(a) Industrial Licensing: The new policy had abolished industrial licensing for all projects except for a short list of industries related to core sector. According to the new policy: *(i)* No licences are required to set up new units, expand or diversify the existing line of manufacture except in certain industries related to security and strategic considerations, social reasons, hazardous chemicals and over-riding reasons from environmental angle and items of elite consumption (in all 34 industries). *(ii)* Areas where security and strategic concerns predominate will continue to be in the public sector. *(iii)* In projects where imported capital goods are not required, automatic clearance will be given. (iv) A flexible location policy will be followed. (v) The system of phased manufacturing programme is abolished. (vi) No licensing will be required for the broad banding facility. *(vii)* Mandatory convertibility clause will no longer be applicable to long term loans from the financial institutions for new projects.

(b) Foreign Investment: Regarding foreign investment, the following changes have been effected: *(i)* Approval will be given for direct foreign investment upto 51 per cent of foreign equity in high priority industries. *(ii)* The payment of dividends will continue to be monitored by the Reserve Bank of India to ensure that outflows and inflows are matched over a period of time. *(iii)* Foreign equity holdings need not necessarily be tied by foreign technology agreements. *(iv)* Majority foreign equity holding upto 51 per cent will be allowed for trading companies primarily engaged in export activities. *(v)* A specially Empowered Board will be constituted to negotiate with the international firms and approve foreign investment in select areas.

(c) Foreign Technology Agreements: In the field of foreign technology agreements the following changes have been effected: *(i)* Automatic permission will be given for foreign technology agreements in high priority industries, upto a lump sum payment of Rs.one crore, 5 per cent of royalty for domestic sales and 8 per cent of sales over a ten year period from date of payment or 7 years from commencement of commercial production. *(ii)* For other industries, other than those specified above, automatic permission will be given subject to the same guidelines as above, if no foreign exchange is required for any payments. *(iii)* No permission is necessary for hiring of foreign technicians of foreign testing of indigenously development technologies.

(d) Public Sector Management: One of the striking features of the new industrial policy is the substantive reduction in the role of the public sector in the future industrial development of the country. It may be recalled that the Industrial Policy Resolution of 1956 had accorded primacy to the public sector by reserving exclusively as many as 17 major industries, known as Schedule A

industries. Further 12 other industries, known as Schedule B were identified for the entry of the public sector. It was also provided in the policy resolution of 1956, that the State will have an over-riding power to start any industry other than these 29 industries specified under Schedule A and Schedule B.

Under the New Industrial Policy, the position and Priority of Public Sector industries have been distinctly changed. The priority areas of the public sector industries have been confined to the following: (i) Essential infrastructural goods and services; (ii) exploration and exploitation of oil and mineral resources; (iii) technology development and building up of manufacturing capacities in crucial areas; and (iv) manufacturing of products, based on strategic considerations, such as defence equipment etc.

Consequently, only eight industries are now exclusively reserved in the core industrial sector and having regard to their weightages, it would be evident that the role of public sector has been reduced by almost 50 per cent of what it used to be earlier. As a corollary, as much as three-fourths of the industrial activities are now being made available for the private sector.

According to the NIP, *sick public sector units will be referred to Board of Industrial and Financial Reconstruction*. A part of Government's share holding of public sector units will be offered to the public financial institutions, general public and workers. Further, public Sector units will be made professional and given greater autonomy.

(e) Monopolies and Restrictive Trade practices Act: With the introduction of liberalisation and expansion schemes under NIP, the government has suitably amended the MRTP Act. The government, on 27th September 1991 promulgated an Ordinance to amend the MRTP Act of 1969. According to the amendment, the following changes have been effected: (i) The requirement for large companies to seek prior approval of the Union Government for expansion, establishment of new undertakings, merger, amalgamations, takeover and appointment of Directors has been eliminated. (ii) At the same time, the provisions of the Act have been strengthened so as to give more powers to MRTP Commission with a view to taking effective steps to curb and regulate monopolistic, restrictive and unfair trade practices which are prejudicial to public interest and also to provide for deterrent punishment for contravention of the orders passed by the commission and the government. (iii) The amended Act has been made applicable to all undertakings and financial institutions except trade unions and associations of workmen. It means that now public sector units would also be covered under the Act, so far as the provisions of the restrictive trade practices are concerned. Accordingly, consumers now would be able to complain to the MRTP commission, or the commission might take suomotu notice of unfair and restrictive practices by Electricity and Water supply Authorities, Railways, Airlines, Banks including the financial institutions such as the IDBI and IFCI, chit funds and Real Estate business. (iv) However, Government undertakings

engaged in the production of Defence equipment, specified minerals, atomic energy, and Government mints will continue to be kept out of the purview of the Act from security point of view. (v) In order to cope with the new and enlarged task the MRTP Commission would be strengthened, both in terms of manpower and judicial provisions.

NEW POLICY FOR SMALL SCALE INDUSTRY

A new industrial policy for small scale Industrial Units and tiny sector was also announced by the Government on August 6, 1991. A separate statement on small-scale industries widens the definition of such industries with a view to enabling them to avail of special facilities and concessions available to small-scale units. Investment ceilings have been raised in respect of both ancillary and export-oriented industries. No change is contemplated in the industries reserved for small scale sector. The National Small Scale Corporation is to be assigned the task of marketing small units' products for mass consumption under common brand names. Specified groups are to be provided cheap credit.

The most important feature of the policy is the four-point scheme to provide financial support to the small scale Industries sector. While promising to set up an agency to monitor and ensure that the credit demand of small scale units is fully met, it has been decided to allow equity participation by other industrial undertakings in the SSI, not exceeding 24 per cent of the total shareholding. The policy also are the first time promises to meet 100 per cent credit demand of the small and tiny industries.

The highlights of the new small scale Industrial Policy are as follows: (i) Legislation to ensure payment of SSI bills. (ii) Act to limit the new and non-active partner's liability to the capital invested. (iii) A cell to be created to meet fully the credit demands of SSIs. (iv) Permission to other units to invest upto 24 per cent in the SSI. (v) Launch of factoring services by S.I.D.B.I. (vi) Tiny sector investment limit raised to Rs. 5 lakhs. (vii) Relaxation to the tiny sector from certain unspecified labour laws. (viii) Services sector to be recognized as tiny sector. (ix) Priority to SSIs and tiny units in allocation of indigenous raw materials (x) PSUs and NSIC to help market products through consortia approach, both domestically and internationally. (xi) Package for handloom and handicraft sector. (xii) Janata cloth scheme to be replaced by a new scheme which will provide funds for loom modernization. (xiii) Compulsory quality control for products that pose risks to health and life. (xiv) Investment limit of ancillary units and export-oriented units raised to Rs. 75 lakhs.

CRITICISM OF NEW INDUSTRIAL POLICY OF 1991

The Industrial Policy announced by the Government of India in 1991 and the subsequent steps taken to liberalise the economy in the field of trade, commerce and monetary management etc., have been welcomed by many, as they are likely to lead to rapid industrial growth and economic development. Delicensing of most of the industries, opening the doors to foreign capital, inflow of foreign technology and liberalised trade policies, drastic devaluation of the rupee, etc., have been strongly criticised by economists and politicians of leftist ideologies. The New Industrial Policy has been severely criticised by Labour Unions as anti-labour. Let us discuss some of the salient points of criticism.

1. Total departure from Nehruvian concept of socialism: The New Industrial and Economic policies of the Government clearly exhibit a total departure from the avowed socialism of Nehru era. In its New Industrial Policy, India has drifted from the Directive Principles laid down in its Constitution, the 1956 policy statement and also its proclamation of socialism as the basis of its polity and economy. The 1949 policy statement of Jawaharlal Nehru had given preference to Indianisation of ownership of Industry. Foreign ownership was to be permitted for a short term in a few areas. Instead, the Government of India's latest policy pledges to build a modern, socialist forward-looking nation through the adoption of different strategies. The Government has abandoned the centre's previously professed emphasis on balanced regional growth and eradication of unemployment and under-employment. The aim of the present policy is to secure only deliverance of industrial economy from bureaucratic control. It has given goodbye to development planning which has been the sheet-anchor of India's policy since the Second Plan. India embarked on the course of planned development is 1951 with the objective of achieving a self-reliant socialistic pattern of society through economic growth with equity and social justice. The national planning Commission was assigned the role of fixing targets and allocating resources for sectoral development and social welfare programmes. Within the framework of a mixed economy, the role of public sector was steadily enlarged so that it could occupy the 'commanding heights' in the economy, help fulfillment of development objectives in accordance with plan priorities, prevent concentration of wealth and economic power in private hands, and create surpluses for investment.

The counter-argument for the critics of New Industrial and Economic policy are as follows: (i) 40 years of development on the Nehruvian model has not delivered goods. There was near stagnation of gross domestic product (GDP) which had increased only at the rate of 0.7 per cent annum. Though the growth rate had increased in eighties in spite of increase in population, the performance was far below that of new industrialised economies of Asia such as south Korea, Taiwan, Hong Kong and Singapore in which the growth rate had exceeded 7 per cent for many years. India could not come upto the level of China, Malaysia,

Thailand or Indonesia in growth rate. In terms of per capita income, India ranks low in the group of developing countries. *(ii)* The performance of Public Sector Units had been very dismal except a few public sector units had earned an overall return of just 3 per cent, though several of them were virtual monopolies. The overall rate of return on capital was not only very low, but not even a fraction of the return on investment in private corporate sector. The financial performance of 900 public sector units at the state level had been still worse. Low efficiency and very low profitability scourged due to multiple causes like conflicting objectives, inadequate managerial autonomy, political and bureaucratic interference, overmanning, administered price regimes, lack of commercial culture, emoluments divorced from the Unit's financial performance and soft budget constraints. In short, these 'commanding heights' of the economy had become 'White Elephants' of the economy. *(iii)* Though economic growth and anti-poverty programmes had reduced the incidence of poverty, about 250 million people are still below the poverty line. *(iv)* The trade deficits were enlarging, the balance of payment position had become very alarming and external debt had risen to astounding proportions warranting immediate remedy. (v) Our private sector is now capable of handling large project and mobilizing the requisite resources, due to phenomenal growth of capital market and rapid diversification of the financial system. (vi) As the then Union Finance Minister, Dr. Man Mohan Singh had rightly said there should be no ideological hang-ups; dogmas would not be permitted in the way of growth of economy.

2. Tilting towards capitalism and open invitation to Multinationals. The new policy allows 51 per cent equity participation to foreign investor in "high priority industries". This amounts to total reversal of Nehru's opposition to continued foreign ownership of industries, a legacy of the colonial past. Government has permitted foreign trading companies with a view to finding markets aided by their expertise of trading in the world market. This amounts to open invitation to multinational. The Government's decision to switchover to globalisation of foreign trade, liberalisation of industrial policy, reorientation of banking practices and acceptance of huge loans, structural adjustments and renewal funds from International Monetary Fund, Aid India Consortium and other measures have been viewed with alarm by leftists and they criticise the government's policy as tilting towards capitalism.

The counter-argument runs as follows: There is no other alternative of finding world markets. This is they only way of bringing "substantial investment and access to high level technology, often closely held, and to world markets." Further, there is no ideological approach to salvage the economy. Even in its birth-place, the Marxian-Communism had gone into the grave and the people of Russia had taken to political democracy and economic salvation through the adoption of the market economy.

3. Opening India's markets to multinationals does not guarantee more export of Indian goods: Critics have stated that opening India's markets to multinationals does not guarantee absorption of India's export of goods in foreign markets. Because of the operation of a cost push economy at home and tariff in foreign countries, Indian goods may not be able to find a market abroad.

Nevertheless, *India's new industrial policy from now onwards will be marked "market friendliness" abroad, privatisation at home and "open door" to foreign capital and trade*. These measures have been welcomed by the richer countries and the IMF, World Bank, the Consortium and other agencies dominated by the "Big Seven" who stand to gain by trading with India. By introducing changes in the export and import licensing, India hopes to reduce the gap in the balance of payments. India may get favourable terms of trade for its exports at the next round of GATT talks.

4. Labour Unions oppose the New Industrial Policy: *(i)* The policy of liberalisation, privatisation, closing down of sick units and opening the economy to foreign investment and technology have provoked protests from the labour unions all over the country. The labour unions have come to regard the NIP as anti-labour and are bound to generate a crisis in industrial relations. According to them, the abolition of licensing will only accentuate industrialization in the metropolitan areas and the backward areas will be neglected. This will increase unemployment and generate tensions in the social and political fields. This criticism is valid to some extent. But the problem is not insurmountable. Even under a system of industrial delicensing, it is possible to induce industrial investment in backward areas by providing infrastructural facilities and the use of tax-subsidy mechanism. They are sure of attract investment in backward regions.

(ii) Secondly, the labour unions fear that with freedom to expand capacity under the NIP, the big industries will drive the small ones out of the market. This apprehension is unfounded. Technological upgradation of industry is necessary in order to sharpen the competitive edge of Indian industry in the world markets. Capacity expansion is also necessary to reap the economies of scale and reduction of cost. The small scale industries can serve as the suppliers of ancillaries to big industries and help in their capacity expansion programmes. The big and small industries sectors can expand together to mutual advantage with no adverse consequences on employment or the expansion of small scale sector.

(iii) Thirdly, Labour unions apprehend unemployment resulting from the use of advanced technology in industrial production. This fear is partly true. But this may be only transitory. Economists hold the view that technology advancement will not generate unemployment, for it causes a fall in the unit cost of production and prices. This will increase the demand for goods and thus the demand for labour. In the long run, the technology will ensure greater employment and also improved price and quality competitiveness in the world markets.

(iv) Labour unions oppose the NIP, as it will lead to privatisation of public sector units and also closing down of unviable units. This is the right thing to be done to check the drain on precarious fiscal resources of the government. At present, the loss making public sector units receive budgetary support from the government and this has the effect of widening the fiscal gap with all its inflationary consequences. Frequent enhancement of the prices of the products of these industries has not helped them to become viable. At present many public sector units are bedevilled by overstaffing, inefficiency and indiscipline on the part of labourers. Privatising these units will improve their competitive efficiency and reduce costs of production and prices. Closing down the unviable units is equally necessary and the unemployed can be rehabilitated. Hence the NIP cannot be regarded as anti-labour, for they are necessary to place India on the global industrial map. Further, unviable units should be made free to exit from the market as they are free to enter. In our country, we have a situation of "Pliopoly". i.e., firms and free to enter an industry and *are not equally free* to quit for any reason. This is not conductive to market efficiency. In India, we keep sick and unviable units for paying the inefficient labour force. Nehruvian model has pampered the labour force and labour unions which have become mostly anti-people by resorting to strikes and threaten the government. A rational and pragmatic recruitment policy and also proper rehabilitation of retrenched labour, with adequate incentives for productivity of labour and disincentives for failure would ensure better labour relations.

The critics of the new policy point out that the increasing role of MNCs would harm Indian interest, in the long run, as there would be more drain of foreign exchange resources than their inflow. Too much dependence on foreign technology would also be undesirable. It will affect the goal of self-reliance adversely and *'Swadeshi spirit'* will be relegated in the background.

The Tenth Plan envisaged depending and widening of economic and industrial reforms to create a positive investment climate conducive to a dominant private sector role, including setting up state-of-the-art intrastructure, capacity building in industry in order to make it internationally competitive, a level playing field with effective and transparent rules of fair play, augmentation of financial resources and efficiency-enhancing policy instruments are the important ingredients of such a strategy.

INDUSTRIAL POLICY IN XII PLAN

Different policy approaches were adopted by different countries to achieve growth in the competitiveness and scale of their manufacturing sectors. A common element noticed in these approaches has been a close coordination between producers and government policymakers. Governments played an active role in providing incentives for domestic industrial growth and in relieving constraints on industrial competitiveness. This process of this coordination has been achieved differed according to the political structure of each country's

economy. *For example,* in MITI in Japan brought aout the coordination between Government and industry (and within Government) in partnership with Japanese industrial associations. In South Korea, the Chaebol and the Government collaborated to create world-class and world-scale winners. Industries to be developed and created ecosystems (skilled human resources, tax regime, Government incentives and so on) were identified by Singapore Government to support growth of competitive enterprises in the country. The presence of large State Owned Enterprise (SOE) sector has enabled the Chinese Government to adopt a very powerful and effective 'industrial policy' in China which gave preferential treatment to domestic companies, large investments in technology development/acquisition, massive investments in infrastructure and restraints on its exchange rate. In spite of high labour costs and a strong currency Germany's manufacturing sector remains very successful because collaboration between stakeholders in the German industrial system is deeply embedded in policymaking processes and also within industrial enterprises.

The main reason for the success of industrial policy in most of the countries mentioned above is the coordination among the government agencies and collaboration with the producers. In other words, the producers and manufacturers were brought in as partners in the framing of industrial policy. The essence of industrial policy in other countries is worth while noting so as to make Indian government also to adopt this process. Firstly the changes brought in by the government through industrial policy need to facilitate the growth of the producing and manufacturing sectors ecosystem in the country. Secondly the policy makers must make the producers collaborate so as to learn together the impact of the proposed policy. Thirdly ensuring the quality of this learning process and the collaboration with the industries so that the speed of learning is accelerated and boost the competitiveness of the ecosystem. In otherwords, the government need to function as facilitator and coordinator rather than the controller of the ecosystem.

The manufacturing ecosystem should have the following three features so that it can learn faster and grow. Firstly, even though the manufacturing sector is large, in India, it is composed of low value addition assembly industries, which is a stumble block for improving technological capabilities. Apart from having R & D capabilities, the ability to convert the ideas in to products alone can ensure growth. Secondly there are four capabilities which need to grow together to make the industry productive and competitive. They are; human skills, embodied technology in hardware, knowledge and the customer. Thirdly, the ecosystem should consist of a range of different sized industrial units. Specifically small and medium sized units need to be preferred as they function as the conduit for employing low skilled labourers and training them at a relatively lesser cost. They also afford opportunities for experimentation by large units. The best example here is Germany, where these small and medium industrial

units constitute the backbone of the ecosystem. In India also we could notice that small and medium automobile component units, pharmaceuticals and IT units emerging as good boostera of industrial growth.

Apart from the above, the following five processes also assist in faster learning by the ecosystem

1. Accelerated learning through well knit coordination among the componenets.
2. A good process of innovation.
3. A set of standards linked to international standards
4. A dedicated Industrial policy regime.
5. A process that facilitates systemwide learning.

In order to accelerate the growth of manufacturing sector a solid strategy is required. *This should contain* : (a) Strong physical infrastructure along with a functioning administrative infrastructure coupled with development of capabilities like technologies, skills and management capabilities to support the interactive process of learning. This needs to be regularly improved and monitored so as to achieve sustainable competitive advantage.

However, in India, the growth of manufacturing sector has been a cause for concern and so there is a need to identify the cross cutting issues to design and implement strategies to overcome these issues. The issues fall under two categories : issues relating to respective industry ministries and industrial enterprises and broader issues that affect the economy as a whole, which are in the regime of other ministries.

The first category includes:

Weak development of human resources, poor technology in the manufacturing sector's supply chain, issues relating to acquisition of land and water management and the regulatory framework for the business. The 12th plan aims to address these issues comprehensively.

The second category includes:

Transport infrastructure, power, cost and availability of credit and the exchange rate. All these have a direct bearing on the competitiveness of the manufacturing sector. Inspite of huge investment on transport infrastructure during XI plan, yet there is a lot more scope for improvement in infrastructure to be achieved as in other countries. Ports are already working to their full capacity and add to the inefficiency in turn around times and little need to be stated about the roads. This directly adds to the cost of transportation. Power situation is also not very much supportive. These two inadequacies choke the growth of manufacturing sector. Added to these, high cost of capital affects investment by manufacturing industries. A supportive fiscal and monetary policy is needed to achieve the targeted rate of growth in manufacturing sector. Efforts are needed

to include alternate sources of funding like private equity, venture capital, etc. Another vital factor is exchange rate. It has a significant impact on the international competitiveness of Indian industries. Monetary and fiscal authorities need to take cognizance of this and study the ways and means to design supportive policies for achieving higher growth in manufacturing sector.

TECHNOLOGY AND DEPTH

An important factor that directly determines the competitive advantage of the Indian economy is technology and its depth. Only when this is addressed, new industries will enter and the existing industries will be able to maintain competitive advantage.

For this the following are the requirements:

If the domestic industries have to invest in technology creation, absorption and achieve higher value addition, there is a need to have :

(a) Availability of domestic demand for domestically manufactured products

(b) Conducive environment to attract foreign enterprises to invest in manufacturing and research activities

(c) Reduce the risks of MSMEs investing in technology development and upgradation with foreign enterprises and to facilitate the partners in reaping the benefits of learning and improving the technology depth.

(d) Introduction of national policy framework which would support innovation. In this context, it should be noted thayt MSMEs can play a vital role in innovation, as they are flexible and they can experiment with new technologies in a small scale to identify the sustainability of the new technologies. But they have obstacles like lack of funds, difficulty in absorbing the risk of introducing new technology, difficulty in attracting and retaining skilled manpower. Government policies should be linked to these aspects so that technologically the country can achieve depth desired. The government support could be in the form of : enabling MSMEs to access risk capital, determining standards for the industry, taking steps to strengthen the interface among industry, research institutions and academic institution in different clusters. Further the government need to also support MSMEs by extending preferential treatment in government purchases of products and services. Already by late 1950's the government introduced a policy called Stores purchase policy, with which all the government departments need to source their purchase of items manufactured by Small scale units. Whether this policy is continued or not, a similar such policy with a focus on MSME products need to be developed and implemented.

(e) Government could also extend fiscal incentives by suitably addressing the tax credit instead of tax incentives, Credit on inputs/capital goods used for R&D out- side the factory premises, several institutes which are

established [like Small Industry Business Research Initiatives (SIBRI), Technology Development Board (TBD), Biotechnology Industry Partnership Programme (BIPP) and Biotechnology Industry Research Assistance Programme (BIRAP)] should work with the financial sector to share input relating to the industry so as to enable free flow of funds to the manufacturing sector.

In accordance with the status prevailing in the world, India should strengthen its Intellectual property (IP) regime and leverage the same. For this, the following steps are needed :

(a) Always strengthen the IP along with rigorous protective mechanisms.

(b) Continuously develop and update the database to have a powerful IP system.

(c) Patent process examination and granting patent should be modernized.

(d) For leveraging be benefits of IP, provide for strong education and training support.

(e) Develop an IP strategy which is tune with the requirements.

(f) Facilitate joint IP filings by industry/academic/research institutions.

(g) Offer tax incentives to encourage the IP specializing companies.

(h) Government need to continuously monitor the technical standards relating different industry and the compliance at the global level and create a database for use by Indian industries. Simultaneously world class assessment agencies need to be created to ensure compliance of the standards developed.

In response to these requirements, the Government has not only created a co-ordinated assessment agency but also ensure that they function well at global standards. Quality Control Institute was also established in this context. Apart from these, any incentive for importing finished goods must be removed and inverted duty structure *i.e.*, imposition of higher duty on intermediate products than the final product, need to be withdrawn. The government has already done these.

For encouraging FDI and Joint Ventures, access to technology in which the domestic expertise is not well developed need to be provided. Problems relating to FDI need to be continuously monitored and suitable actions taken to eliminate them to facilitate inflow of FDI. Specifically a number of tax and duty related issues need immediate attention.

Encouraging FDI and Joint Ventures

FDI (Investments by foreign companies in Indian ventures) and Joint Ventures of Indian companies with foreign partners can provide access to technology in areas in which domestic expertise is inadequate. The Government must identify the areas, in consultation with the industry, in which FDI and Joint

Chapter 7

unit V ①

Role of State and Role of Planning Commission in Development

In the 20th Century, after the First World War and more so after the Great Depression of thirties, the concept of State has totally changed from that of previous centuries. In olden days, the *Laissez-faire* doctrine was very much prevalent and the olden States were more of less 'Police States' confining their activities to the barest minimum of protecting the country from external aggression and internal rebellion; besides maintaining law and order and rendering of justice. The economic activities of the nation were left to private enterprises and organization, with little interference from the governmen and the taxes were levied for just running the State and to look after the three functions of the government, *viz.*, legislative function, exective function and judicial function. Adam Smith in his 'wealth of Nations' published in 1776 had indicated three 'duties of the sovereign", *viz.*, (i) "Defending the Society from the violence and injustice of other independent Societies", (ii) "Securing internal justice between citizens", (iii) "Erecting and maintaining those public institutions.... and works, which though they may be in the highest degree advantageous to a great society, could never repay the expenses to any individual.

In modern days, the concept of 'State' has totally changed and the role of government has become more and more expansive, expensive and also elastic to meet the challenges of 'times' and also to cater the needs and aspirations of the people. Modern States have to take the role of 'Welfare States' to protect the people not only politically, but also socially and economically,so that they might be retrieved from the age-old clutches of poverty, ignorance, disease and unemployment.

The old monarchical and colonial system of government were unsuitable to the increasing task to the state to ensure the welfare of the people, though those systems were best suited for maintaining law and order and peace in the land.

The democratic system of government with elected heads of the states is considered suitable and best, inspite of its drawbacks and shortcomings. Almost all countries of the world have switched over to democratic form of government either by evolution or by revolution or by military coup. With the advent of independence to many countries, with democratic political set up, the role of the states has become paramount to effect speedy socioeconomic reforms

and to make the countries move towards developmen and progress from age-old stagnation and backwardness.

We shall discuss about the objectives of the modern welfare states and also the activities to ensure realisation of these objectives.

Objectives of Modern States to ensure Development

1. Changes in Institutional frame-work: The paramount task of modern governments is to effect changes in institutional frame-work, in order to pave the way for effective economic development. The old institutions with time-old beliefs and cultures and attitudes of the people would pose a positive resistance to economic development. Moreover, these old social institutions with religious denominations would stand in the way of encouraging individualistic enterprise and the spirit of competition. If economic development has to take place smoothly and effectively, the social attitudes and values of old institutions entrenched in caste, kinship, joint family and outmoded attitudes, fundamentalism etc., should undergo a thorough change by means of 'Social Revolution'. This does not mean overthrowing the existing order by means of violence. This will be counter productive due to discontenment and frustration which will lead to further violence and unrest. The process of social change has to be evolutionary, gradual and smooth, though it may take decades or centuries.

2. Organizational Changes: Institutional changes have to be accompanied by organizational changes to ensure quick economic development without much bottlenecks. These include expansion of commodity markets within the country, as well as outside the country, organization of labour market; expansion of transport and communication and financial institutions to help the growth of agriculture and industries undertaken by the State and investment houses for capital formation. Organization of labour markets will increase the productivity of labour and the government may undertake social security measures for labour by fixing reasonable wage-rates, hours of work and settlement of disputes by recognizing the trade unions Further, this will help in labour mobility from rural to urban and the excessive labour-force in rural areas could be siphoned off to industrial areas for better productivity, reducing disguised employment in rural areas. This has to be followed by house-construction works, sanitation, pure-drinking water supply. Electricity, and transport facilities etc., to avoid slums in urban areas. These should be augmented by hospital and schools.

3. Social and Economic overheads: Provision of social and economic overheads is of vital importance in underdeveloped countries moving towards the path of growth. The basic services like railways, roadways, transport and communication, gas, electricity, irrigation, etc., have to be provided and these activities fall under the role of state-undertakings.

(a) Education: According to Myrdal "To start a national development programme while leaving the population largely illiterate seems to me to be futile." Education is essential not only in making the people literate, but to

make capital formation effective through human and physical investments. It is only through education and training, the quality and productivity of labour could be increased.

(b) *Public Health and family Planning:* Provision of many facilities for public health and medical care would go a long way in increasing the productivity of the people and also ensuring better quality of life of people. The mortality rates will be considerably reduced. Further, family planning programme should be an integral part of public health and development programmes. The role of the State in educating the women of the backward countries, particularly in the field of family-planning and wise parenthood is indeed tough and also exacting.

4. Agricultural Development Policy: Agriculture is the most predominant occupation in underdeveloped countries, and as such, the role of the State in formulating a development policy in agriculture and translating the policy into practice are of vital importance. The policy should aim at: (a) reducing excessive population depending on land; (b) avoiding sub-division and fragmentation of cultivable land to ensure economic holding; (c) increasing the productivity on land and incomes of farmers and make subsistence farming into a commercialised farming; (d) protection to tenants and ownership rights by suitable changing land tenurial systems; (e) reducing indebtedness of farmers; and (f) effective price policy to avoid fluctuations in agricultural prices and to ensure stability and growth.

5. Industrial Development: Backward economies may have abundant natural resources. But due to lack of technology and capital, the resources would be dormant. The industrial policy of the state should be such as to encourage development both in private sector and public sector. Where private enterprises feel shy, it is the duty of the state to start those industrial activities and help the growth of private investments. The industrial policy should have a judicious combination of stimulating elements for the development of large-scale, as well as, small-scale industries and also cottage industries.

6. Increasing Foreign trade: Generally, underdeveloped countries would be foreign-trade oriented; but the value of commodities traded would be very small as they would be exporting mostly raw materials agricultural products and primary goods. In exchange, they would be importing capital goods, machinery and technology with high value. Leading to balance of payment problems. So, the governments of underdeveloped and developing countries should adopt many export-promotion techniques with import-substitutions policies. Credit facilities and infrastructural facilities together with tax concessions should be contemplated in the industrial policy of the government to encourage industrial production for purposes of export and earning foreign exchange.

7. Reduction of inequalities: it is recognized in modern days that inequalities in income and wealth are against the principle of 'welfare' of the people. Mere increase in production and national income would accentuate the

growing inequalities and concentration of economic power the increased prosperity of the nation. The duties of modern governments are too many to reduce the inequalities of income and wealth. These have to be effected by many legislative measures introducing many welfare and economic activities to help the poorer sections of the society. Fiscal measures should aim at redistribution of wealth in the community by taxing the rich mor and subsidising the inputs required by the poorer sections of the society. It is only through appropriate policy of taxation, budgetary public expenditure and borrowing, the governments could reduce inequalities.

All the above stated principles and policies could be implemented by undertaking certain practical measures. Let us discuss the actual role and functions of the state in the practical field to ensure economic development.

Role or Functions of a Modern Welfare State

(i) *Protective functions:* Economic development can be achieved only if there is peace and tranquillity in the state. So, the primary function of any government is to protect the people, offer security to lives and property, and maintain law and order. Besides protecting the people from external aggression and internal disorder, modern governments of the present days have to face some more peculiar problem of militancy of terrorist groups and anti-national and anti-social elements causing grave concern to the peace of the countries. Terrorism has become a global phenomenon. Modern governments have to spend a lot for containing terrorism.

(ii) *Administrative functions:* For undertaking the functions stated above, e.g. protection of people, the government should have an effective administrative machinery for defence, police force, coastal guards and territorial armies. Further, the governments have to maintain a host of departments for its civilian work connected with legislative, executive and judicial functions, besides developmental activities.

(iii) *Social security measures:* Modern governments undertake social security measures in a massive way by offering relief to the poor, sick and unemployed. Many governments have introduced old-age pensions, family pensions, widow-pensions, military-pensions, sick insurance, unemployment insurance, etc., very comprehensive and ambitious schemes of social security measures and considered essential in a modern democratic civilized society which aim at banishing want and fear from among the masses. These activities aim at increasing the productivity of the nation in the long-run, though there may not be any immediate benefit to the economy except the recipients of the benefits.

(iv) *Economic Functions:* All activities of the government relating to agricultural development, industrial expansion, encouragement of trade and commerce and other business activities and also regulation and control of business, etc., come under economic functions of the government. These activities aim at: (a) Optimum utilization of resources; (b) Economic

stabilisation: (c) Accelerating economic growth; and (d) Removal of economic inequalities.

Thus governments of modern days perform a wide range of functions in order to accelerate economic development. For effecting these developments, the government has to maintain money supply in the economy and control the money supply. In modern days 'money' has come to mean 'credit' rather than metallic or paper money. Control of credit is an essential function of the modern states, as any faulty approach will lead to inflationary condition in the economy. Of course, the control of credit is done through the Central bank of the country.

Economic Development will not be a spontaneous process in underdeveloped countries and it has to be effected only through governmental intervention and activity. Hence, the rate of development depends on the policy of the governments and effective implementation of the same.

Effective economic development depends on 'Planning' for development. So, it has become imperative on the part of modern governments to have a 'Planning body' for economic development. In India, we have the planning commission which is entrusted with this task of economic development of the country by formulating the policies of allocation of resources, finding priorities, etc. We shall study about the role of 'Planning Commission' in detail.

THE ROLE OF PLANNING COMMUNICATION IN INDIA

The planning Commission of India was set up in March 1950 by a resolution of the government of India, under the Chairmanship of Pandit Jawaharlal Nehru, the first Prime Minister of India, to prepare a plan for the "most effective and balanced utilization of the country's resources". The Planning effective Commission in India is only an advisory body entrusted with the preparation of the Plan. It is not responsible for the execution of development programmes. The execution of planning programmes has been entrusted to the Central government and governments.

Functions of Planning Commission

1. The first function of the Planning Commission is to make an assessment of the material, capital and human resources of the country and to find out possibilities of increasing such resources to the requirements of the country.
2. The Commission has to decide the type of plan and prepare the final plan document for the most effective and balanced utilization of the country's resources.
3. The Commission has to recommend the allocation of resources between sectors on the basis of priorities and also lay down the stages for effective progress and completion of programmes.
4. The Commission has to point out by identifying those elements and factors which would tend to retard economic development and also determine conditions to be established for the successful execution of the plan, keeping in view the social and political conditions in the country.

5. The Commission has to determine the type of machinery necessary for achieving the successful implementation of the plan by stages.
6. The Commission has to decide the strategy of Plan and appraise from time to time the progress made in the execution of the plan.
7. While appraising from time to time the progress made, the commission can recommend the adjustment of policy and measures necessary and development, as may be referred to it for advice, by the Central of state Governments.
8. The Commission has to examine specific problems relating to planning and development, as may be referred to it for advice, by the Central or State Governments.
9. In the Plan document, the Commission has to specify the rate of growth of the economy with targets for achievements during the planning period for each sector.

Thus, the Planning Commission is a Staff agency preparing the Plan document confining its role as 'advisory' and 'coordinating' the information, rather than exective.

Administrative Organization

The Planning Commission is multi-member body including four full time members and a few part time members who are important Cabinet Ministers. Full time members will be mostly eminent men, technical experts, economists and administrators. They hold the rank of the Minister. Since economists and administrators. They hold the rank of the Minister. Since its inception, the Prime Minister of the country holds the post of the Chairman of the Planning Commission. This has added considerable prestige to the Commission and has helped in coordinating the functions smoothly. The Administrative Reforms commission made some recommendations in the constitution of the members of the Planning Commission and on that basis now, the Planning Commission consists of the Prime Minister the Chairman; a full time Deputy Chairman; and four full time members, and some Cabinet Ministers as part time members and also a Secretary of the Commission. There is also an additional Secretary who is incharge of administration and coordination within the Commission. In addition to these, there are some senior officers in the ranks of Deputy Secretaries and under-secretaries who watch the progress of the different programmes. The Planning Commission of India is a collective body with collective responsibility. For convenience of administration, each member has been given charge of a group of divisions or subjects. The Commission has many Divisions viz., (i) General Divisions; (2) Subject Divisions; (3) Coordination Divisions; (4) Special Developmen Programme Division; and (5) Evaluation Divisions.

The Evaluation Divisions are considered to be very important. There are two important Divisions in the evaluation of programmes and projects. The first one is the project Appraisal division which is a very powerful Division which acts as a Secretariat of the Public Investment Board. It also helps the various Ministers

in examining the feasibility and potentialities of different projects. The Second one is Evaluation Division which evaluates the various programmes in the Plan.

Besides, there are a number of other bodies connected with planning Commission in the formulation and implementation of the Plan. They are as follows:

1. National Planning Council

This was constituted in 1965 in the formulation of the Fourth Plan. This Council consists of Scientists, Engineers, Economists and other experts and it has 12 study groups related to irrigation and power, Management; Agriculture and Land Reforms, Education; Scientific Research; Labour, Employment and Social Welfare; Industry and Minerals; Transport; Family Planning; International Trade; and Natural Resources. These study Groups under N.P.C are expected to examine the various aspects in detail and submit their reports to the planning Commission for talking effective and suitable steps in finalising the document.

2. National Development Council

In order to ensure the cooperation of the States in the implementation of the Plan, the National Development council has been set up in which all the Chief Ministers of the States would be members along with the Prime Minister who is Chairman. Some Ministers of the Central Government will also participate in the deliberations of this council. The main functions of this Council are (i) to review the working of the plan from time to time; (ii) to consider and discuss important problems relating to national developmen; (iii) to recommend measures for the achievements of targets in the plans; (iv) to improve the efficiency of administrative services; (v) to ensure cooperation of the people; and (vi) to build up resources for national development.

The N.D.C. is only a consultative body and the Plan gets the final approval.

3. Research Programme Committee

This consists of leading economists and research scientists who initiate research projects through universities and Research institutions for the study of problems relating to development. It gives financial assistance to these academic bodies. Many universities and organizations and Research Institutes make use of this facilities to undertake investigation of social, economic and political aspects of development in the country or the region. The institutions which carry on research on behalf of this committee are Indian Statistical Institute, National Council of Applied Economic Research, Institute of Economic Growth and Social change; Institute of applied man power research and also India Council of Social Science Research (ICSSR) etc.

Besides, the planning commission has many associated bodies and working Groups to help in the formulation of the plans. The Central Ministers; Economic division of Reserve Bank of India, Central Statistical organization etc., help the planning commission in collecting data and computing statistical information.

AN APPRAISAL OF PLANNING COMMISSION

India is a vast country with teeming millions of people with varieties of socio-economic problems. The Planning Commission has been entrusted with the gigantic task of preparing the development plan for this subcontinent. Although it is only an advisory body, this machinery has been fairly successful in the task which has been entrusted with it.

1. India has gone through ten Five-Year Plans and now the eleventh plan is on the anvil. In spite of many drawback and shortcomings in the economy, the course of 55 years of planning has transformed the country from stagnation to development. There have been all round progress, though the progress made are not up to the expectation, considering the enormity of resources utilised in 55 years of planning.
2. The Commission had been successful in making a fair allocation of resources to maintain sectoral balances. It is to the credit of planning Commission that a large share of investment has gone into the infrastructural development in the country. Agriculture has been revolutionised from 'begging bowl in the country. Agriculture has been revolutionised from 'begging bowl' to 'bread basket'.
3. The planning Commission has helped the backward states of the country in a bigger way, by creating the 'Gadil formula' and allocating larger resources for the development of backward states.
4. The machinery set up for the evaluation of the projects have been doing a splendid job in assessing the projects and offering advice to the Planning Commission.
5. The Commission has introduced the practice of publishing the reviews relating to plans and their achievements. Though the mid-term appraisal of five-year plans has been discontinued since 1960, the Commission presents a full picture after the completion of the plan.
6. The planning Commission has encouraged research in social sciences and also in the problems relating to development.

In spite of all these achievements, the planning commission of India is criticised on the following grounds:

(i) The Commission which is advisory body wields unlimited powers. Many describe the Planning Commission as a 'Parallel cabinet'; 'Super Cabinet' and also 'the fifth wheel of the coach'. The orders of this non-legal advisory body have become mandatory to Central Ministers and State Governments. Even the recommendations of the Finance Commission, which is a statutory body, are set aside by the advice of the planning commission.

(ii) Many critics point out that planning machinery in India is politically motivated and the Commission gets dissolved and reconstituted with the change of governments.

(iii) It is stated that the role of State Governments has been almost negligible in the formulation of plans, as they do not have any say in it, in spite of India

is in the federal set up, and this centralised power is against the principle of federalism.

(iv) The serious defect of the planning machinery is that it has enormous power without responsibility. It is not responsible either for failure of plans of for non-implementation; and hence many ministers consider the planning commission as a necessary evil, which stands in the way of development.

(v) The planning commission after releasing the plan document, goes to slumber and only wakes up after five years to prepare another document. This criticism is rather very uncharitable.

(vi) Another important criticism is that the planning commission is concerned only with formulation of the plan and its implementation is the work of the centre and state governments. The latter could not implement them properly due to red-tapism, corruption and inefficiency. This type of dyarchy is the main reason for the failure of targets in many plans. In India, it is stated, that plans are very efficient in formulation, but dismal failures in implementation.

(vii) The planning machinery in India is neither a goal-setter not a path-marker. It is only an adhoc body with no fixed criteria for its members or for its working. It is just like an administrative machinery with all its weaknesses. Its lethargy, weaknesses and inefficiency are reflected in many plan holidays which are ostensibly called 'Annual Plans'.

(viii) Of late, the administrative machinery for implementation of plans has considerably deteriorated and many targets have become only paper targets for the programmes.

(ix) Finally, there is no organization or machinery in the centre of the states to systematically monitor the progress of the programmes and projects. This has resulted in the non-fulfillment of the plan objectives.

Review Questions

Section - A

1. What is a Laissez-faire state?
2. What are the duties of the state (sovereign) according to Adam Smith;s wealth of Nations'?
3. What do you mean by social security measures?
4. What is 'Evaluation Division' of planning commission?

Section - B

1. Explain the term 'welfare state'
2. What is 'National Development Council'?
3. What are the objectives of modern Democratic States?
4. What do you mean by reduction of inequalities?
6. What are the three types of resources in rural India?

Section - C

1. Discuss in detail about the role and functions of Modern welfare states.
2. What is planning commission? What are the functions of planning commission in India?
3. Make an appraisal of Indian Planning Commission.

11

Chapter 8

Unit V

Planning: Objectives & Strategies

DECENTRALISED PLANNING

Decentralised planning is concerned with the planning process at the sub-state levels, *i.e.*, district, block and village levels although the focus of attention is usually centred on district planning. Even the First plan document emphasised the importance of decentralised planning and role of people's participation in the planning process. The Balwant Rai Mehta Committee appointed in 1957, recommended the constitution of statutory elective local bodies with necessary resources, power and authority developed on them, and a decentralised administrative system, working under their control. Of course, this was the beginning of the pachayati Raj System in India.

The planning Commission issued guidelines on District Planning in 1969. In 1977, M.L. Dantwala working group drew up the guidelines for Block-level planning. In 1978, Ashok Metha Committee also submitted its report on Panchayati Raj. In 1983, the economic advisory council to the Prime Minister presented its report on Decentralisation of development planning and implementation in the state. In 1984, the group on district planning submitted its report which formed the basis of the seventh plan proposals on decentralised planning was made a real beginning only from seventh plan onwards. Till sixth plan, India had adopted the system of centralised planning with little variations.

Decentralised planning can also be defined as planning at the grassroot level of planning from below, while centralised planning is called regimented planning from above. There are several tiers of the planning process such as centre, state, district, Block and village. But out of them more emphasis has been given so far for the first four tiers of planning process, while the ultimate goal is the development of village.

Importance of Decentralised planning

1. It makes the planning process realistic, practical and also flexible, as it brings better coordination between local resources, local skills local labour and the needs of the locality.
2. It is better suited to countries like India, for development of agriculture, cottage industries and small rural industries and also agro-industries, pro-

venting migration of rural labour and also for development of horticulture, animal husbandry, fisheries and forestry.

3. Decentralised planning can help in the programmes to education, health, nutrition, drinking water etc., in a more effective manner and thus raise the level of social services more quickly and in a more sustainable manner.
4. There can be better linkage between the development of village and small towns. The latter can be developed as growth-centres in some cases.
5. Decentralised planning will have more percolation or trickle-down effects in terms of employment – generation and poverty-alleviation in the rural areas.
6. The wastage of resources can be minimised under decentralised planning, due to people's participation and closer watch over the use of public funds. People can use the *'Right of information'* form the local units to improve the efficiency and implementation of the projects.
7. Decentralised planning is linked with panchayati raj institutions at district, Block and village levels. At district level. There are Zila parishads, and at Block level there are panchayat samitis and at village level there are Gram panchayats. These are elected bodies and people's representatives take part in them. In terms of the *73rd amendment of the constitution*, elections to panchayati Raj institutions have become mandatory. Many functions of the state have been transferred to panchayats. In pursuance of the 74th amendment of the constitution, Municipal bodies have got more powers for urban development. Under decentralised planning, plans are formulated with the cooperation of the people's representatives, state administrative machinery at district and block levels and the financial institutions like banks. Funds are devolved by the state to the panchayiti Raj institutions.

In India, decentralised planning has been adopted in the states of Maharashtra, Gujarat, West Bengal, Kerala, Karnataks, Jammu & Kashmir etc., in a more vigorous manner so far.

Decentralised planning was not adopted in a proper form in several big States, as the politicians and bureaucrats did not want to share power and resources with the local people and local bodies in the real sense.

CAUSES OF POOR PERFORMANCE OF DESCENTRALISED PLANNING IN INDIA

1. The essential pre-requisite for successful decentralised planning is the implementation of various land reform measures in the States, such as consolidation of Holdings, imposition of land-ceiling on existing holdings and redisribution of surplus lands, apart from implementing various tenancy reforms. In the absence of full-fledged land-reforms measures, several lakhs of villages in India are still under semi-feudal conditions with the connivance

of politicians, as the lobby of powerful landed-gentry and rural-rich did not support the beneficiary-oriented development programmes in the rural areas.

2. There are no effective organisations of marginal and small farmers, agricultural labourers, artisans, scheduled castes, scheduled tribes and other poor people, who should be represented in the local bodies, so that they may look after the interest of the villages.
3. Even after several decades of planning in the country, we have not been able to develop the necessary managerial structures for resource transfers to the local bodies and modalities of decentralised planning in sufficient details to make them workable.
4. There should be regular elections to village panchayats and other local bodies, so that they may become effective and powerful instruments of social change in India.
5. There is yet another problem in utilising the resources of the villages. Generally, in decentralised planning, only inferior type of resources are used for purposes of development and these result in poor development. It has been pointed out that there are *three types* of resources in rural areas: (i) The rural resources which are the *private property* of the rural elite or rural rich or local politician. Even if these are not their private property, they will be under their effective control. (ii) Secondly, resources like forest and minerals which are controlled by the urban-located groups with adequate liances with them. (iii) Thirdly, Inferior resources, with low potential returns. Now, under these circumstances, decentralised planning has to deal only with the use of inferior resources, as the superior productive resources could not be touched foe various reasons. This is the main reason why decentralised planning could not become an effective and potent tool of rural development and change.

MEASURES TO BE ADOPTED TO IMPROVE THE PERFORMANCE OF DECENTRALISED PLANNING

Many economists are of the view that effective decentralised planning to improve the villages of the country will be the only solution to tackle the problems of low growth, poverty, unemployment and inequality in India. They have a feeling that centralised planning for more than five decades could not tackle these problems effectively. Therefore planning should be given a new thrust, a new trial and a new orientation in terms of grass root or local level planning. Of course, the measures have been indicated in he Ninth plan and also in Tenth plan. The following measures are essential to improve the performance of decentralised planning in future:

1. It should be adopted in the all the states simultaneously without any exception. Of courses, there may be some minor variations depending on

the local conditions and local requirements. There should be *uniform policy* with regard to switch over from centralised planning to decentralised planning in the country.

2. Institutional reforms such as land reforms should be implemented to provide necessary background for the success of decentralised planning. Panchayiti Raj Institutions should be strengthened for the purpose, because, they will make people's participations a success, small farmers, marginal farmers, people belonging to the deprived group, labourers and artisans should be represented in the local bodies.
3. Besides devolution of funds to panchayat institutions by the State government, *local private capital* should also be mobilised.
4. The roles of all agencies and functionaries should be clearly defined and demarcated. There should be effective cooperation between administrative machinery of the government and also people's representatives NGOs and the banks.
5. The decentralised planning unit should be at the local level assisted by an able team of experts. A fresh approach is needed for managing the economic resources of the country. We can save planning system in India only through the experiment of decentralised planning. Planning should be 'indicative planning' with emphasis on policies, rather than on plan-targets of financial targets only.

Review Questions

Section - A

1. Define 'Decentralised planning'.

Section - B

1. State the importance of 'Decentralised planning' in India.

Section - C

1. Define and discuss 'Decentralised planning' in India. What suggestions you offer to make decentralised planning in India more effective.
2. Discuss the causes for poor performance of decentralised planning in India.

Chapter 9

Five-Year Plans of India (Plans: I to VII)

Distribution of Public Sector Outlay in Actual

(Rs. in Crore)

Head of Development	ANNUAL								
	I PLAN 1951-52 to 1955-56	II PLAN 1956-57 to 1960-61	III PLAN 1961-62 to 1965-66	PLANS 1966-97 to 1968-69	IV PLAN 1969-70 to 1973-74	V PLAN 1974-75 to 1977-78	VI PLAN 1980-81 to 1984-85	VII PLAN 1985-1990
Agriculture & allied sectors	290	589	1089	967	2320	3413	Total for items 1 & 2	
Irrigation & Flood control	434	430	664	471	1354	2716	26130	48,100
Power	149	452	1252	1213	2932	5378	30,750	61,690
Village Small Industries	42	187	241	126	243	375	-	-
Industry & Minerals	55	938	1726	1511	2864	6888	16,950	29,220
Tuansport & Communication	518	1,261	2,112	1,222	3,080	5,087	17,680	41,000
Health, Education & Miscellaneous	472	855	1,493	976	2,986	4,796	17,780	38,720
Buffer stock of foodgrains	-	-	-	140	-	-	-	-
Total	1,960	4,672	8,577	6,626	15,779	28,653	1,09,290	2,18,730

Finance for Five Year Plans

(Rs. in Crore)

Amount

Source	*ANNUAL*							
	I PLAN 1951-52 to 1955-56	*II PLAN 1956-57 to 1960-61*	*III PLAN 1961-62 to 1965-66*	*PLANS 1966-97 to 1968-69*	*IV PLAN 1969-70 to 1973-74*	*V PLAN 1974-75 to 1977-78*	*VI PLAN 1980-81 to 1984-85*	*VII PLAN 1985-1990*
Taxation & Surpluses of Railway	752	1152	3855		1701	All internal	All internal	All internal
Market borrowings	205	1410	1955	1855	1369	Resources	Resources	Resources
						Added	Added	Added
Small Saving & unfunded debt	304			928	2341			
Other Capital Receipts	91			391	1455	32,120	86,610	1,34,190
External Assistance	188	1,090	2,455	4,565	2,614	5,830	8,530	16,120
Deficit Financing	420	948	1,150	723	850	5,830	15,680	28,260
Additional resource mobiliation, loans from LIC, ETC					4,280			
Total	1,960	4,600	8,630	6,882	16,160	28,653	1,10,820	1,78,570

Chapter 1

Dr. D Awadhia

Underdevelopment and Growth: Features, Causes and Concepts

Introduction

A detailed study of Indian Economics has great importantance to the students of ecomomic in India because of its objectives, viz., analysis of the facts and causes of India's poverty and providing a workable solution to remove the poverty and misery of the million, and laying down the right policies for a rapid and planned economic development. The objectives would require a careful study of the many aspects of the Indian economy and the multifarious problems of development with which we could be concerned in this book.

The second half of 20th century was a period of mass awakening, politically and economically, in all countries. There had been a growing interest in economic development on the part of welfare states. Writers on economic development of nations generally classify the countries of the world into two categories; namely, (i) developed countries, and (ii) underdeveloped countries or backward economies. For the latter, we use the term 'developing economies' to dispense with the odium attached to the term 'backward' and underdeveloped'. Of late, a new term 'Third world' is being used for under developed or developing countries. However, we shall be using these terms, 'underdevelopment', less developed', 'backward', 'developing', etc., interchangeably in our discussion.

Criteria of underdevelopment

It is very difficult to give a precise definition of the term 'under development' as it connotes a variety of features and criteria.

The U.N experts have defined an under developed country as one "in which per capita real income is low when compared with the per capitareal incomes of the U.S.A., Canada, Australia and Western Europe". This definition, though indicates one of the important features of under development, viz., poverty, is not wholly correct and adequate. The low per capita income is only one aspect of the complex problem of underdevelopment and the comparison with the per capita income of other countries is only a relative measurement and this criterion is bound to be arbitrary.

The Indian planning Commission defined underdevelopment as one "which is characterized by the co-existence, in greater or less degree, of unutilized and under-utilized man power, on the one hand, and of unexploited natural resources on the other. "This definition too cannot be accepted as wholly correct, as the emphasis is only on the existence of idle resources causing under development, and this is not the only feature. The definition does not indicate the causes of the existence of idle resources. Further, even in 'developed countries' resources may remain idle and under utilised in times of depression. On that score, we do not classify such countries as 'underdeveloped'. The existence of idle resources in the economy is mainly due to two major causes in the backward economy.

(i) Inadequate capital resources or low capital formation; and

(ii) Lack of skill and technology

Eugene Staley defines underdevelopment as follows: "A country characterized by mass poverty which is chronic and not the result of some temporary misfortune, and by obsolete methods of production and social organization, 'which means that the poverty is not entirely due to the poor natural resources and hence could presumably be lessened by methods already proved in other countries."

Explanation of the term 'under development' should be viewed in its three dimensional aspects, namely, (i) *incidence* of poverty, ignorance and disease; (ii) *maldistribution* of national income; and (iii) political and administrative *incompetence combined with social disorganization.*

The so called criteria of under development enumerated below are either incorrect or partly true. Let us discuss them:

1. Ratio of population to land in the country: This is supposed to be the first criterion of underdevelopment, but really, we cannot correctly assess whether a high or low ratio of population to land area is an indicator of underdevelopment. There are many underdeveloped countries in Africa and Latin America, where the ratio of population to land also exhibit signs of underdevelopment. So, this criterion is vague, as countries with low as well as high ratio of population to land show signs of backwardness.

2. Ratio of Industrial output to total output: According to this criterion, countries with low ratio of industrial output to total output are considered under developed. In other words, the degree of industrialisation is taken as the criterion. It should be understood that the degree of industrialization is often a consequence rather than a cause of economic prosperity in the country. Further, in countries where agriculture is well developed, the disposable agricultural surplus income will be generally used to subsidize uneconomic urban industries. As a result, the overall per capita income would tend to be lower. Thus, this criterion is not a valid indicator of underdevelopment.

3. Low ratio of capital to per head of population: Ragnar Nurkse stated that 'underdeveloped' countries are those which "compared with the advanced countries, are under-equipped with capital in relation to their population and natural resources." This concept that the dearth of capital as the criterion of underdevelopment is not satisfactory. Abundance of capital does not mean economic development and prosperity. It is a process depending on various factors and it has much to do with human endowments, political conditions, social attitudes and historical accidents, as Nurkse himself points out.

4. Low per capita income: The most commonly accepted criterion of underdevelopment is the low per capita income of underdeveloped countries as compared with the advanced countries. Strictly speaking this is also not satisfactory. The data on per capita income of the country are inaccurate, unreliable and often misleading, due to many conceptual and computational difficulties. Further, international comparisons of national income and per capita income are meaningless. Finally, the concept of 'Standard of living" varies from nation to nation; from race to race and from region to region. However, the per capita income is the most widely used indicator of underdevelopment.

From this, we find that it is very difficult to define and explain the concept of 'underdevelopment'. In order to understand the purport to the term better, we have to spell out the various characteristics of the underdeveloped economy.

Characteristics of underdevelopment

Harvey Leibenstein has classified the characteristics of underdevelopment under four major heads, namely (1) Economic; (2) Demographic; (3) Cultural and Political; and (4) Technological and Miscellaneous. The underdevelopment chart given in Figure 1.1 illustrates the various features of underdevelopment under each head.

Almost all features of underdevelopment, exhibited in the chart, are present in India, which stands as a typical example of an underdeveloped country that is on the way of development. Let us discuss in detail the features of underdevelopment.

1. Preponderance of Agriculture: An underdeveloped country is exclusively a primary producing economy. It will mainly depend on the production of agricultural material and minerals and the industries will be mainly agro-based. The share of the primary sector is larger in the national income of the underdeveloped country. But the corollary may not be true. There are some notable examples which are exceptions. Advanced countries like Denmark, Belgium, the Netherlands and New Zealand are mainly agricultural countries with fairly primitive activity.

India is predominantly an agricultural country where more than 70 per cent of the people are engaged in agriculture or in allied occupations. The pressure of population on agriculture is very high. Nearly 40 per cent of the national income

is derived from agriculture. In spite of the fact that in India industrialization started long ago, hardly 10 per cent of the population is engaged in industry and most of the industries are only agro-based industries like sugar, cotton, jute, textiles, etc.

2. *Population pressure and Unemployment*: Another feature of underdeveloped countries is that they are invariability over-populated. The size of the population in these countries is increasing at a faster rate than in advanced countries. The economic development in these countries in not capable of keeping pace with the increase in population.

In India, the population is growing at an alarming rate with a birth-rate of about 40 per thousand. During the decade 1961-71, the increase was 24.6 per cent, which was nothing but a population explosion. Alarming increase in population, excessive pressure on land and poor industrial development have created unemployment problems which could not be solved successfully, inspite of planning several decades. The number of job seekers in India is raising day after day and the problem of unemployment is taking serious proportions. The problems of unemployment has resulted in underemployment or 'disguised unemployment'. People are prepared to work, but they are unable to find work throughout the year due to lack of complementary factors. This is more so in agriculture. Due to population pressure, more persons are working on land than what is actually required and this is called disguised unemployment. The excess population does not contribute to the productivity of land.

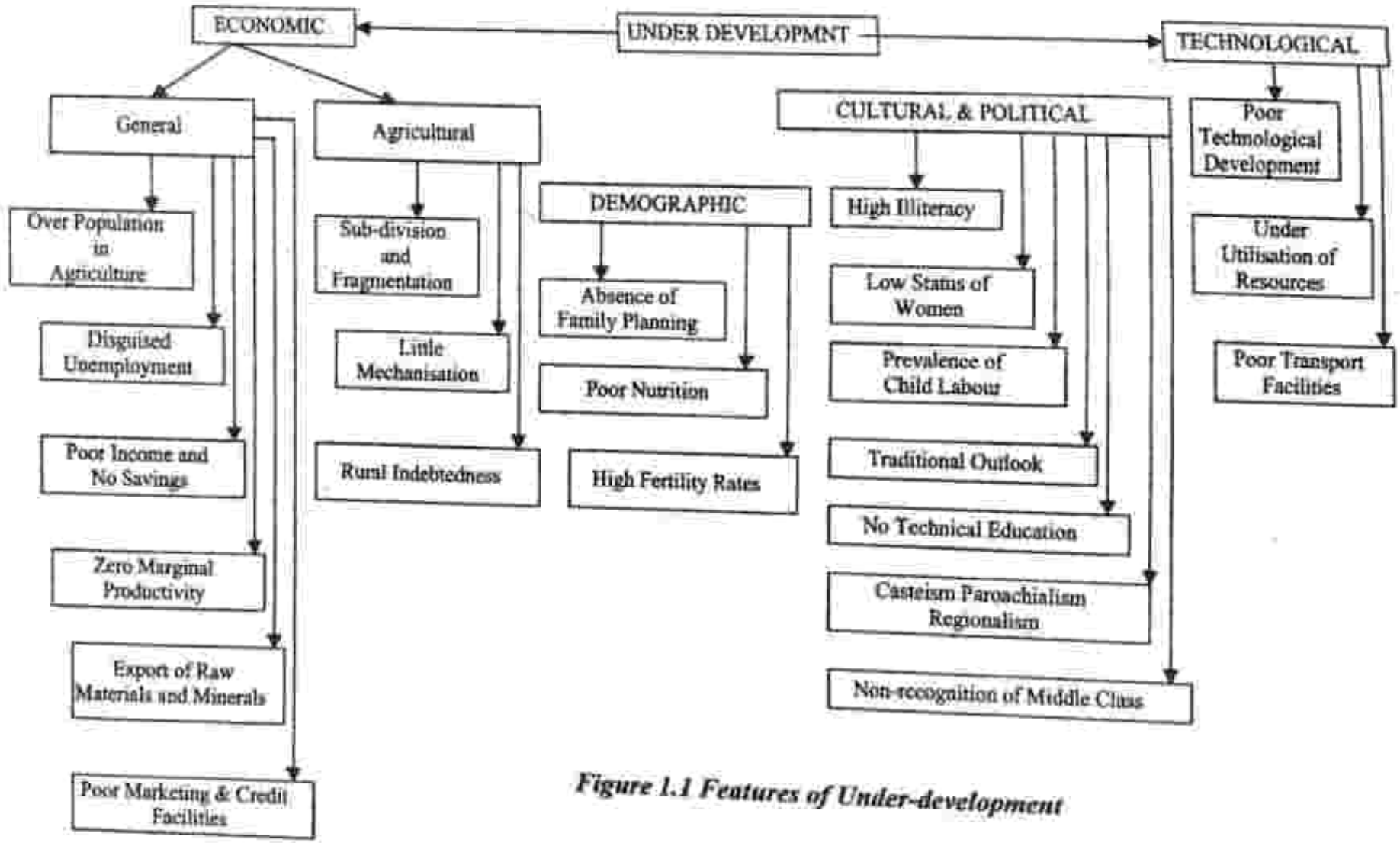

Figure 1.1 Features of Under-development

3. Poor Income and poor Savings: Another important feature of underdevelopment is the low per capita income of the people and the consequent little or no savings in the economy. According to the world Development Report, 1981, 52.5 per cent of the population of the world in 1979 had GNP per capita of 230 dollars, In contrast to this, 15.6 per cent of the world population living in the industrialised countries had GNP per capita of 9,440 doallars. The oil exporting countries of West Asia with only 0.6 per cent of the world population had GNP per capita of 5,470 dollars. These figure show that underdeveloped countries are poverty-ridden.

Judging from international angles, India is definitely and underdeveloped country. It has been estimated that per capita income of India is only 1/40 of that of U.S.A., 1/25 of Canada, 1/14 of Japan and 1/12 Russia. According to the International Financial Statistics, India is one of the poorest countries of the world, if not the poorest. A natural outcome of poor income is little saving or no savings in the economy. The savings of an economy play a vital role in economic growth, as savings of an economy play a vital role in economic growth, as savings and investments are the two crucial determinants of economic growth. Savings as percentage of national income in India was only 5.7 per cent in 1950-51. After four decades of planning, it had reached around 20 per cent. But this is very small when compared to advanced countries of the world.

4. Under-Utilization of Resources: The natural resources of the undeveloped economy are either unutilized or under-utilized. Generally, underdeveloped countries may not be deficient in natural resources like land, water, minerals, etc. The main problem would be that these resources are poorly harnessed or improperly used. Poor and improper utilization may be due to various reasons, like inaccessibility, lack of technical knowledge, shortage of capital and limited markets. Many of the African countries have good potential for development, but they remain backward due to under-utilization of resources.

India is a country of vast natural resources. Lofty mountains, perennial rivers, dense forests, abundant plains and minerals of various types, etc., offer large scope of utilization and development. But these have not been fully utilized. It has still about 9 crore acres of cultivable wasteland. The water power potential of the country has been harnessed only upto 10 per cent. The large forest wealth remains untuilized and the natural mineral wealth of the country has not yet been explored fully.

5. Capital Deficiency: Capital occupies a strategic role in production and economic development of a nation. Underdeveloped countries would suffer from capital deficiency. Not only the stock of capital will be small, but also the rate at which it is being formed will be low. In the case of India, the process of capital formation is far from satisfactory. Already we have seen that the savings in India, as percentage of national income, is very poor. So, for purpose of investment for capital formation, India has to depend on foreign countries for capital inflow. It

should be remembered that in foreign countries like U.S.A., Canada, and Western Europe, more than 20 per cent of the national income will be channelized for investment.

The basic defect of the backward economies would be lack of inducement to invest and the low propensity and capacity to save. Adding to this, there will be lack of dynamic entrepreneurship. According to Nurkse, in backward economies, even if the level of income is increased with capital inflow from abroad, it does not mean that the rate of savings would increase, because of the tendency of the people to emulate the higher levels of consumption prevailing in the advanced countries. This tendency is called the 'Demonstration Effect'.

6. Low Level of Technology: In backward economies, there will be a terrible dearth of skilled personnel and as such the methods of production will be carried on under primitive methods. Consequently, the productivity either in agriculture or in industries will be very low. Lack of technical, know-how and poor scientific advancement and obsolete technique, combined with poor entrepreneurship would result in poor quality products. Though in India some advanced techniques can be seen in some industries, when compared with the modern standards of production, ours is decidedly inferior. Higher quality education and better technical training are necessary to absorb the new technology. It is also a problem of high expenses.

7. Foreign trade Orientation: Most of the underdeveloped countries depend upon the export of a few traditional commodities, consisting mainly of raw materials and minerals. They will be importing consumer goods and machinery. The ratio of export production to total output will be normally high. Though these countries can be called 'export economies', the excessive dependence on export has very harmful effect in an underdeveloped country. The production system of the country will be geared only to the requirements of the export sector, and the other sectors will be comparatively neglected. The economy, thereby will become unstable due to frequently changes in foreign exchange earnings caused by fluctuations in the international prices of the export materials. Any drastic change in the foreign demand for the products of poor economies will result in dislocation in the economy. Any reduction in foreign demand would depress the home market which would ultimately reduce the income and employment level.

8. Poor Economic Organization: Well developed economic institutions are vital factors of economic development. In backward economies, the economic institutions would be either ill-developed or completely absent. Closely knit economic organizations and financial institutions would enable the country to absorb the outlay for development very easily and institutional reforms could be also carried out with ease. But in underdeveloped economies, absence of these institutions would create problems of development and growth.

9. Lack of Suitable socio-Economic set up: In underdeveloped countries, the prevailing socio-economic set up would be the greatest impediment to development. Mass poverty and illiteracy combined with caste systems, religious

beliefs, etc., would adversely affect the course of economic development. The Industrial Revolution in England is an excellent example to prove the importance of socio-economic set up of British people who were able to bring about remarkable economic changes. Within the frame work of religion, the British people were able to bring about remarkable economic changes. The Christian religion regarded the supreme duty of man is the glorification of God by good works on earth. The religious and social set up was receptive and amenable to the mighty revolutionary changes on the economic front through industrialization. In India, the caste system proved detrimental to economic progress, as it impeded the movement of capital and labour and dampened the spirit of enterprise. The society was more or less divided into not-competing groups. Hence, occupational mobility has little meaning. Though the old caste system has disappeared, it has taken a new shape of Casteism in the hands of selfish politicians who want to preserve and enlarge the casteism by statutory methods. Further, it has emerged in the form of regionalism, parochialism, etc., preventing mobility and display of entrepreneurial skill and development.

10. A Dualistic Economy: Another important feature of underdevelopment is 'Dualism'. What do we mean by 'Dualism'? It is the presence of dualistic nature of economic activities and this is one of the important characteristic features of any backward economy on the way of development. There will be market economy on one side, where marketing system would have developed exceedingly well, catering to the needs of rich and wealthy class of people, supplying them many amenities of modern life, like radio, T.V.,. Motor car, telephone, picture houses, tall and multistoried buildings and beauty parlours. There will be excellent transport facilities like tram cars, electric trains, diesel locomotives, speed boats and aeroplanes, offering comfortable and also luxurious travel to the different parts of the country and also overseas. In short, there will be market towns and cities with factories, banks, business houses, swimming pools, colleges and five-star hotels. On the other hand, there will be subsistence economy with agriculture oriented activities in rural areas which will be very backward. The standard of living of the people in the rural sector will be far below the standard of living of the people in the urban sector. The rural people will not have even proper roads and they may have to depend on country-carts for their transport. Basic facilities like drinking water, electricity, transport system and medical-care will be lacking in villages. In many places, the rural sector will be a demonetized one and barter system will be prevailing. The use of money and banking benefits would be far from the reach of rural poor, who would form the majority of the population. Thus dualism connotes the existence of opposite things in the economy, namely, well-developed marketing system and barter system; affluent economy and subsistence economy; super-fast trains and country-carts, etc.

Indian economy exhibits this dualistic features in full, as it is not fully developed. We have fast-moving electric trains and also slow-moving country-carts. We have capital markets and stock exchanges with many

communication facilities like STD, ISD and Fax system in cities; while we have no proper roads in the rural areas and many villages are unconnected with the railway system. The barter system is still prevailing in many villages. This type of dualistic feature is not condusive to economic development.

This dualism is almost an ubiquitous feature of all the underdeveloped economies in the process of development. The co-existence of a traditional indigenous economy and a relatively modern money economy is due to the partial exposure of the influence of modernization, while the dominant segment belongs to the backward indigenous economy. The co-existence of such contrasting economic and social organizations is indeed a puzzling aspect of the growth process of the underdeveloped countries. Hence any planning or strategy for development must take full cognisance of this dualistic character and analyse the basic features, causes and consequences of dualism.

Prof. J.H. Boeke, a Dutch economist calls this 'Social Dualism' on the basis of his studies of Indonesian development experience. According to him, dualism "is the clashing of an imported social system with an indigenous social system of another style. Most frequently, the imported social system is high capitalism. But it may be socialism or communism just as well or a blending of them." According to Boeke's concept, the advanced western social system is imported and planted in the soil of indigenous precapitalist agricultural system. In this attempt, the western of the east, which is precapitalist in nature and agrarian in character. Boeke's contention is that the dualism is the product of the clash between East and West. He fully agrees with Rudyard Kipling "East is East and West is West and never the twain shall meet."

11. Mass poverty, Misery and Low-standard of Living: Most of the people in underdeveloped countries are economically very backward, poor and leading a miserable life without any norms of standard of living. The backwardness, poverty and poor standard would result in low labour productivity, factor immobility, lack of entrepreneurship and poor specialization. Instead of conquering the physical and social environments, people would surrender to them. The underdeveloped countries of the world are considered as 'slums' of the world.

Applying the above tests of underdevelopment, India must be treated as a major underdeveloped country of the world. Indian economy exhibits all signs of underdevelopment enumerated above. The poverty of Indians is not due to poor resources, but because the economy could not 'grow'.

DETERMINANTS OF DEVELOPMENT AND GROWTH

After having discussed the features of underdevelopment, we have to study those factors and influences which would initiate and accelerate economic development and growth. The process of economic growth is determined by two sets of factors, economic and non-economic.

Economic Factors

1. Natural resources: The main factor influencing economic development is the natural resources available in the country, particularly 'Land'. 'Land includes all nature resources, including fertility of land, its situation and composition and forest wealth, etc. Existence of natural resources alone cannot initiate economic development, unless the resources are properly harnessed. In the event of harnessing the natural resources for development, a country with abundant natural resources can be developed quickly and largely than the country unutilized or under-utilized. This is one of the reasons of their backwardness.

2. Transport and Communications: The means of transport and communications initiate economic development. More facilities of transport would reduce the cost of transport and thereby increase the external and internal trade of the country. In countries where road, rail , canals and rivers are interconnected with each other, economic growth is encouraged. This was the case in Britain, France, Germany and the Netherlands, Transport and communications ensure easy mobility of factors of production, raw materials, etc., help in breaking economic isolations and encourage educational development and intermingling of cultures. Above all, transport and communications are essential for urbanisation.

3. The Rate of capital formation: Capital Formation or accumulation is the crux of the problem of economic development and no economy can grow without having produced 'means of production'. Construction of buildings, dams, factories, extension of roads, railways, waterways and harbours, more irrigation facilities, reclamation of land, and improved methods of agriculture, etc., are essential for capital formation. The level of production and material well-being of the community depend largely on the stock of capital at its disposal. Capital formation can take place under private enterprise, as in capitalist economies, or under public enterprise, as in socialistic economies, as in capitalist economies, or under public enterprise, as in socialistic economies. But the core of the problem in underdeveloped countries is the lack of capital for investment and capital formation. These economies will be caught in the vicious circle of poverty and they will continue to remain poor simply because they are poor.

The essence of the process of capital formation is "the diversion of a part of society's currently available resources to the purpose of increasing the stock of capitals goods so as to make possible an expansion of consumable output in the future." The building up of capital can be initiated by domestic savings out of the income or it can be borrowed from foreign countries; the former is more desirable in order to have capital formation in the real sense of the term. According to Arthur Lewis, economic growth is a process of transforming a country from a 5 per cent saver to a 15 per cent saver. The saved amount should be properly mobilized with efficient banking and financial institutions. Finally, the mobilized saving should be invested in the production of capital goods. Mere monetary expansion for capital formation will land only in inflation. The cost of development must be measured only in real terms, and not in monetary terms. Further, capital

formation and technological improvement should go hand in hand. Otherwise, it will be mere duplication of capital and not deepening of capital.

4. Capital output Ratio: Another determinant of economic development and growth is the capital output ratio. The term capital-output ratio refers to the requirements of capital for a definite output in units. For instance, if we establish a factory at a cost of Rs. 5 crores which will help to produce annual output worth Rs. 1 crore, we can say that capital-output ratio is 5:1, *i.e.*, five units of capital are required to produce one unit of output. In other capital-output ratio tends to lead to a comparatively higher growth rate of output. Generally, in the underdeveloped countries, the capital-output ratio is higher, i,e, more capital is required for lesser output due to wastage in the process of production, low level of technology and inefficiency of factors, and inadequate infrastructure. The capital-output ratio will vary in different economies and it will also change over a period of time and no uniform capital-output ratio is applicable to all countries and at all tiems. It depends on the stage of economic development. In the early years of development, a country will be investing heavily on economic infrastructures like irrigational works, hydroelectric projects, railways and roadways which will not give immediate returns in the form of output, but will help in due course to reduce the capital-output ratio when the developing economy gathers momentum. At a later stage, even small increments in investments will bring larger output. So the economy should see that the rate of investment is increased and the capital-output ratio is reduced in stages. This will lead to higher rate to growth. In other words,

$$\text{Rate of Growth of National Income} = \frac{\text{Investment Ratio}}{\text{Capital - Output Ratio}}$$

It is very difficult to estimate the capital-output ratio for an economy as a whole, as it depends on various factors such as the degree of technological development related to capital investment, efficiency of equipment used, the quality of managerial skill, pattern of investment and the extent of utilisation of economic overheads. Experts of the United Nations have estimated that in poor countries the capital-output ratio is ranging from 2:1 to 5:1. The second five- year plan of Indian assumed capital-output ratio of India as 23:1. Whatever may be the estimates, the fact remains that a low capital-output ratio is a significant actor in development.

5. Technological Progress: Technological changes are the most important factors in the process of economic growth. Technological changes are related to production, processing, marketing and distribution. Changes in technology lead to increase in productivity of labour, capital and other factors of production. The technological changes not only reduce the cost of production, but also increase the quality of the products; besides, new products are produced creating a demand for them. The basis for technological change is the scientific discovery and

invention. When an invention is applied in production, it is called innovation leading to improvement. Japan stands a typical example to prove that vast economic development could be achieved through improved technology. The developing countries are benefiting from the vast knowledge acquired by advanced countries in the field of science and technology. Technological change would enable the productive units to go in for specialization and division of labour which would in turn increase the productivity.

Non-Economic Factors

Non-economic factors are much more powerful than economic factors in influencing the extent of economic development and growth. Non-economic factors may be social, cultural, political and climatic which would either accelerate or impede economic development and growth. According to Nurkse, "Economic development has much to do with human endowments, social attitude, political conditions and historical accidents".

1. Social Factors: Social and cultural factors, have been responsible for economic development and growth. Western culture and education had led to the spirit of physical adventure and discoveries leading to the rise of new mercantile classes who were interested in savings and investments and in undertaking risks in order to earn lot of profits. This spirit was responsible for industrial Revolution in European countries in 18th and 19th centuries. In underdeveloped countries, the activities of the people would be based on tradition and religion and customs. The traditional values like morality, truthfulness, contentment, simple living and non-materialistic attitude, etc., would not be conducive to economic development, as we have understood in the modern sense. In such countries, the family would be the primary economic and social unit, and relationships would be personal and patriarchal; and decisions would be influenced by caste, clan, creed and religion at the social level. The people would be inimical to economic development. If economic development is to take place, social attitudes, values and institutions will have to be changed.

2. Human Factors: Rate of growth of population has an important factor in modern economic growth. Mere growth in the size of the population would not lead to economic development. It depends on the efficiency of the people. According to kuznets, the population of Europe increased more than four-fold within a period of two centuries (1750-1950), while the population of the remaining world increased just by 200 per cent. This phenomenal increase of population in European countries was not detrimental to economic progress; on the other hand it was helpful for them to increase their per capita GNP. During the period, a four-fold increase in population had resulted in ten-fold increase in GNP per capita of European countries. This is attributed to the human factor. This is due to increased efficiency of labour force and this is called human capital formation. This could be achieved by good expenditure on health, education, sanitation and on social services and security measures. But in backward economies,

increase in population is a great hindrance to the economic development. Hence, family planning and control of population should form part and parcel of economic development and planning in developing countries.

3. *Political Factors:* Political and administrative factors also help in modern economic growth. Enlightened electorates, educated politicians and morally straight administrators would ensure greater economic development and growth. Weak political structure, instability, corrupt politicians, officials, and inefficient administration would be a hindrance to economic development. Lewis points out, "No country has made progress without positive stimulus from intelligent Government."

4. *Climatic Factors:* Among the non-economic factors, climatic conditions stand foremost in determining economic development. If we make a study of the geographical and climatic conditions of he countries of the world in relation to development, we may find that most of the countries in the North and South Temperate Zones of the world had succeeded in becoming rich or nearly rich with per capita GNP over £ 1,000 or ranging from £ 300 to 1,000, whereas most of the tropical countries were poor or very poor with per capita GNP under £ 100. According to G.K. Galbraith, who stated in 1951: "If one marks off a belt, a couple of thousand miles in width, encircling the earth at the equator, one finds within it, no developed countries. "The location of to-day's poor countries in the tropics is an important analytical factor in economic development. The climatic conditions have played a very dominant role in determining the growth of these countries. The climatic factors severely hamper development through their impact on man and agriculture.

Of Africa's 11.7 million square miles, barring the extreme northern and southern countries, others have a definite pervasive influence of climate affecting development. 'The many tropical diseases kept Africans at subsistence level; yellow fever and malarial levied a heavy toll on all visitors. Trypanosomiasis, carried by the Tse Tse fly, killed horses and cattle, and made it impossible to use animal transport. Commerce had to depends on human porters, the most costly and inefficient. The transport obstacles alone were quite sufficient to stop any appreciable African economic development for centuries."

The impact of human diseases on economic development in poor countries has also been ignored by economists. They assume that the average economic man is healthy, and sickness is not a major factor in the functioning and growth of an economy. This assumption is false. In tropics, healthy man is an exception. Every alternate human being will have health and sickness problem, which will vitally affect attitudes towards work, learning ability, and capacity for sustained work. "About 200 million people in Africa, the Middle East and Latin America are affected by the debilitating disease, 'Bilharzia' and, in China, the millions affected are countless." Malaria though eliminated in sub-tropics, is still highly endemic in all of tropical Africa, South America and South-East Asia.

Climatic conditions not only affect human beings but also agriculture, soil, food supply, etc. The tropical food, because of the composition of the soil, is short or proteins which retards growth. Research is urgently needed to combat the climatic obstacles of the tropics.

OBSTACLES TO ECONOMIC DEVELOPMENT

Features of underdevelopment and determinants of development studied above will give a fair idea of obstacles to development, as the same points may hold good in analysing the obstacles to economic development of a country. However, the general characteristics of under development are not common to all the underdeveloped countries. But in most cases, there are some characteristic features which are both the cause and consequence of poverty which is the basic cause for underdevelopment. As we have studied already, the economy will be caught in the vicious circle of poverty and it will continue to remain poor, simply because, it is poor. This means there will be circular relationship between cause and consequence, which will perpetuate poverty and inhibit development. In other words, the economy will be in the 'Poverty trap'. Let us discuss these points in detail which would act as a formidable obstacle to development.

1. Vicious circle of Poverty: According of Prof. Nurkse, vicious circle of poverty implies "A circular constellation of forces tending to act and react upon one another in such a way as to keep a poor country in a state of poverty. A country is poor because it is poor." This is explained in the following manner: A poor man may not have adequate food to eat and consequently he will be undernourished and weak. Consequent on his physical weakness, his capacity to work will be very low, which means poor earning power. This poor earning to poor health and productivity, etc. This concept holds good for a poor country. The basic cause of underdeveloped country is its low productivity due to capital deficiency and also market imperfections, which in turn perpetuates underdevelopment. As we have seen already, the development of an economy depends on the rate of capital formation. This is affected, both by demand and supply of capital. Both will face a vicious circle, as depicted in the figure 1.2.

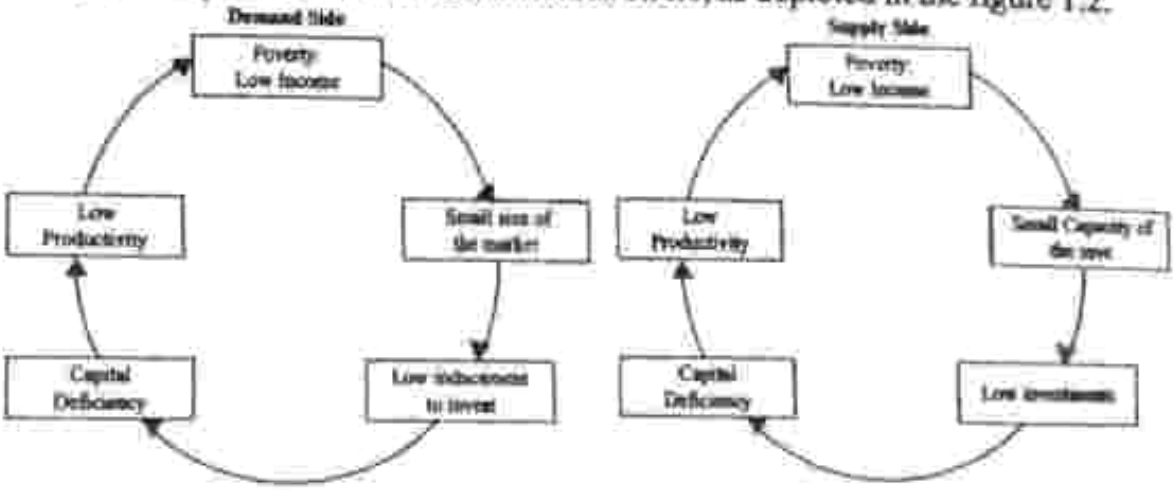

Figure 1.2 : Vicious Circle of Poverty

Let us take the demand side first. In a poor country, the level of productivity will be very low and consequently the income of the people will also be very low, and they may not have adequate purchasing power even for the necessaries of life. Hence, scope for business and industrial expansion will be very much limited; and inducement to invest will be practically absent. Since the rate of investment is very low or nil, the productivity will also be very low, leading to very low income and thus the vicious circle will get completed. Let us take the supply side. The poor country will have low level of income. This will result in the low savings of the people. Poor savings result in lack of capital for investment and low capital formation. Poor investment and low capital formation will result in low productivity of the economy and low income of the people, thus completing the vicious circle.

From the figure 1.2, we can understand that the basic malady in an underdeveloped economy is its poor income and low productivity. This vicious circle must be broken at both ends, *viz.*, on the demand side and supply side, by means of increased capital formation, with importanted foreign capital. The State must provide adequate incentives to investment by means of suitable monetary and fiscal policies. Generally, it is very easy to break the demand side of the vicious circle; but it is very difficult to break the supply side of the vicious circle.

Apart from these vicious circles of poverty, there is also a third vicious circle according to Meier and Baldwin. This relates to natural resources and human resources. Economic development of a country depends upon the exploitation of natural resources and developing them for human betterment. But, development of natural resources depends upon the productive capacity and efficiency of the country. If the people are illiterate, ignorant and inert, lacking technical knowledge and skill with very little entrepreneurial activity, the natural resources of the country will remain either dormant or underutilized or even mis-utilized. On the other hand, the people in an economy will remain backward if they do not develop the natural resources. Thus, underdeveloped natural resource are the cause and consequence of backward people. This is illustrated in figure 1.3.

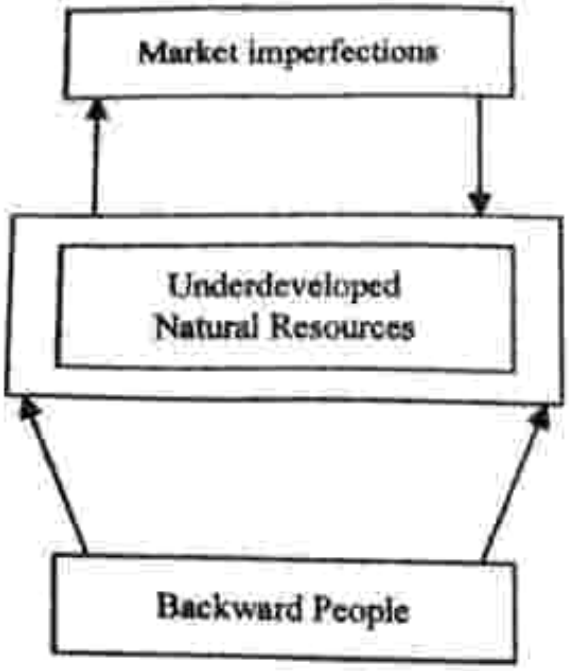

Figure 1.3: Vicious Circle of Backwardness

2. Market Imperfections: Another important obstacle to economic development is market imperfections. According to Meier and Baldwin, market imperfections relate to immobility of factors, price rigidity, ignorance of market conditions, rigid social structure and lack of specialisation. These factors act as frictions and impediments in the achievements of an optimum allocation of resources. Due to these market imperfections, the efficiency of production in the economy becomes very low and the country's natural resources may remain unutilized or underutilized, the employment will get misdirected. The labour cannot move freely in search of higher rewards, but remain where they are, though their marginal productivity is zero. Capital will not be utilized for remunerative purposes. In most cases, the available capital will be sterile and kept in the form of jewellery or valuable metals in lockers or buried underground. Thus, the country's resources will remain unutilized and sectoral expansion becomes an impossibility.

3. Low-rate of capital Formation: We have studied already that in backward economies there will be deficiency of capital and poor capital formation. The low-rate of capital formation results out of the vicious circle of poverty studied already. This poverty is the cause and consequence of a country's low capital formation. Even the available capital will not be utilized for productive purposes. They will be invested in gold, jewellery, real estate and commodity hoards. The expenditure pattern in underdeveloped countries will be mostly on 'value-retaining' objects and durable consumer goods with conspicuous consumption, during the time of festivities. There will be no incentive to save and invest, due to political instability unsettled monetary conditions, stifling personal initiative and

also rickety land tenurial system. Lack of well-developed capital market, stock market, credit institutions and banking system, particularly in rural areas, will pose a formidable problem in mobilising savings for capital formation. The state will not provide necessary social overheads to give impetus to development, as the State itself will be politically backward and also uncooperative due to foreign rule. The State will confine itself to elementary functions of maintaining law and order. Under these circumstances, investments will be directed towards export of primary products, rather than industrialising and developing economy, as India had experienced during the British rule.

4. Socio-cultural obstacles: Apart from capital deficiency, in backward economies, there will be obstacles due to social and cultural attitudes. The existing social institutions would create maximum resistance to economic development and social change. Rigid stratification of society and traditional beliefs, patterns of living, concepts of social dignity, loyalties to castes and ethnic groups, regional identification, etc., would stand in the way of accepting new set of values created by inventions and innvovations.

Hence, a radical change in minds and attitudes of the people is indispensable in process of economic development. The change in the attitude of the people should go hand-in-hand with investment for development. Nurkse has stated: "Economic development has much to do with human endowments, social attitudes, political conditions and historical accidents. Capital is a necessary but not a sufficient condition of progress."

5. International Forces: Apart from the above stated local obstacles, exposure of underdeveloped economies to world trade has resulted in destabilising factors due to disequalising forces, Economists like Gunnar Myrdal, Lewis and prebisch have developed a theory of exploitation of backward economies or underdeveloped countries by the advanced economies. According to these economists, the gains of international trade have gone mainly to developed countries and the underdeveloped countries have become much impoverished. Though the exports of underdeveloped countries have increased much in the world trade, the effort of underdeveloped countries have increased much in the world trade, the effort has not much contributed have increased much in the world trade, the effort has not much contributed to the development of the rest of the economy of that backward countries. The main reason is that every backward country has developed the export sector to phenomenal dimensions to the utter disregard of the other sector of economy. These backward economies have seriously exposed themselves to international fluctuations and consequently, they suffer due to cyclical instability and balance of payment difficulties. These backward economies do not gain much either in the depressionary period or in the boom period. During depressionary period, the terms of trade become adverse and foreign exchange earnings of backward countries fall sharply and this leads to unfavorable balance of payments position. The backward countries could not take advantage of falling prices by increasing exports, due to inelastic nature of

their export goods, which are mostly agricultural and minerals. Neither could they benefit during boom period, when there is rise in prices in the world market. The backward economies could bot increase the output and employment during the boom periods due to market imperfections, inadequate overhead capital and structural defects. Even the little increased earnings in the boom period in the export market will be wasted in conspicuous consumption, speculation, etc. Again these countries meet with balance of payments difficulties.

In addition to this, foreign investments have adversely affected the backward countries. Most foreign investments in backward economies have been directed towards increasing exports. But, the productivity, incomes and living standards of primary sector of these countries have not increased proportionately due to foreign investment.

Hence, according to above mentioned economists, the underdeveloped economies are exploited by the world economies.

6. *Administrative Incompetence and Corruption:* Lately, in many of the underdeveloped countries, administrative incompetence and appalling corruption have become the major obstacle to economic development. A well-trained and honest and dedicated administrative set up is very essential for proper economic development of the country. The existence of a strong, competent political set up with stable government, free from corruption alone can maintain law and order and security of the people and also peace and tranquility which are essential for economic development of the country. Only such type of governments can give proper direction for investment and assure the benefits of economic programmes. This has become a major bottle-neck in many of the developing countries including India. All these make the problem of economic development a complicated and a tough task.

CONCEPTS OF DEVELOPMENT

Writers on 'Economic Growth' and Economic Development' make use of these two terms as interchangeable and also synonymous. But there are a few writers who make specific distinctions between these two expressions and concepts. For a lay man, Economic Development, Economic Growth and Economic Progress may mean the same thing. But there are certain subtle differences based on scientific scrutiny of the concepts. Hence, we shall the concepts of Economic Development and Economic Growth and the exact distinctions between the two.

What is Economic Development?

It is rather difficult to define a concept which is very common and familiar with the people. Everyone knows that it indicates a process of development in the economy, whereby there will be development in agriculture, industry, trade, transport, etc. All these improvements put together is referred to as economic development of the country. This development does not mean a mere description of any isolated development project, like construction of a dam or starting a

sugar factory somewhere. These programmes should be a comprehensive one, as a process in all the sectors of the economy. Every project should become the integral part of the process of development of the economy as a whole, with a determined effort to change the phase of the economy from backwardness to a developed one. This process will result in increased output of the economy, or real increase in the income per head of population.

According to Meier and Baldwin, we can define economic development as "a process whereby an economy's real national income increased over a long period of time."

Benjamin Higgins defines economic development as "a discernible rise in total and per capita income of a country, widely diffused throughout occupational and income groups, and continuing long enough to become cumulative.

From these definitions, we can deduce some features of economic development. (i) It is a process leading to certain positive results in the economy. (ii) The process involves the working of certain forces which bring about a change in the economy. (iii) The development process results in increases in real national income and not mere money income (iv) The increase in real national income (*i.e.*, net national product) must be a sustained one for a prolonged period of time. (v) Tempoary increase as economic development.

Economic development covers a structural change in the economy. There will be change in factor supplies, *i.e.*, increase in factor supplies due to discovery of additional resources, better methods of production and innovation. It is also indicative of growing rate of capital formation due to increase in savings and investment. It implies institutional improvements of changes and better skills and technologies.

On the demand side, there will be structural changes. These changes arise from the size and composition of the country's population, changes in the taste and preferences of the people, size and distribution of national income. These changes may also be caused by institutional and organizational arrangements.

The net result of economic development is the growth of output and real per capita income.

Economic development is not a mechanical process to be brought about by increased supply of resources, techniques and institutional framework. Mere economic forces will not create the process of development. The economic system operates within the socio-cultural framework of the society. Hence, non-economic factors play a vital role in determining the process of development. Unless the people change their attitudes with a will to advance by hard work, the development process cannot be initiated Political, sociological and psychological factors, the standard of education, health, type of family institutions and religion have intimate bearing on the process of economic development.

ECONOMIC DEVELOPMENT AND ECONOMIC GROWTH DISTINGUISHED

We have defined economic development "as a process whereby an economy's real national income increases". From this it is clear that economic development is the process and increase in national income is the result. The sustained increase in national income is the indicator of the growth of the economy. So, we can decisively say that economic development is the process and economic growth is the result. Or, we can say that economic development is the process and growth is the phenomenon. Economic growth is the end-product of the long process of development.

When we discuss about economic development, we refer to the various factors and forces operating on the economy to lift the economy upwards. When we discuss about the growth of the economy, we focus only on the growth of the national product, i.e., the result of the process.

Economic development is a conscious and comprehensive action based on a preplanned strategy so as to lift country from the morass of stagnation and put it on the rails of growth. Hence, the concept 'economic development' is related to only underdeveloped or less developed countries which have to strive hard to find wherewithal to put the economy on the rails of growth to have sustained and continuous increase in national income. On the other hand, economic growth is associated with developed countries which aim at increasing their growth-rate higher and higher, i.e., the net national product should be ever-increasing.

The difference between economic development and economic growth can be illustrated by means of simple analogy, though it is only a rough and approximate example. Suppose, a particular region does not have the railway system at all and transport is carried on by human porters and animals. To introduce the railway system in that region is not an easy task. Lands have to be acquired, railway lines have to be planned and laid, stations have to be constructed, signalling system has to be installed, rolling stock should be got ready, men should be trained to make the first train move on the rails. For this, enormous money, material and labour should be utilized to introduce the railway system. Above all, the technology of constructing the railway system should be known. The entire work is a process by which the railway system is introduced. This is analogous to economic development. This results in easy transport of men and materials. Thereafter the aim of the railway system is to increase the passenger traffic and goods traffic and earn more and more so as to expand the railway system with fast moving trains and express goods service, larger amenities to passengers, greater help to trade and commerce. This is analogous to growth of the system. Thus, development is the cause and growth is the result.

Economic development requires and also involves some direction, regulation and guidance to generate forces of expansion in the economy and maintain them. This is true of the most of the underdeveloped countries, whereas spontaneous nature of growth is the characteristic feature of advanced economies.

A. Maddison simplifies the distinction between development and growth in the following words: "The raising of income levels is generally called economic growth in rich countries, and in poor countries, it is called economic development." This is rather over-simplification.

'Everyman's Dictionary of Economics' makes the distinction between 'development' and 'growth' more explicit and comprehensive. "Generally economic development means simply economic growth. More specifically, it is used to describe not quantitative measures of a growing economy (such as the rate of increase in real income per head) but the economic, social or other changes that led to growth. Growth is then measurable and objective; it describes expansion in the labour force, in capital, in the volume of trade and consumption. And economic development can be used to describe the underlying determinants of economic growth, such as changes in techniques of production, social attitudes and institutions. Such changes may produce economic growth."

In spite of these differences between 'development' and 'growth' economists like Prof. Paul A. Baran and Prof. Arthur Lewis maintain that these two terms are synonymous. According to Prof. Baran, the distinction is meaningless and the difference is only notional; and the transition from 'development' to 'growth' is not from the 'old' to the 'new', but it is 'development and growth. Arthur Lewis states that most often we refer only to growth, but occasionally for the sake of variety we use the terms 'development' or 'progress'.

However, Schumpeter and Mrs. Ursula Hicks maintain the differences between the two terms 'growth' and 'development'.

Stages of Economic Development

Many economists have contributed a lot towards the concept to development and philosophy of growth. In their study of economic development and growth, some economists have adopted the historical approach describing the various stages through which the country has to pass before reaching the final goal of full economic development.

Adam smith, the father of classical economics believed in the doctrine of 'natural law' in economic affairs and asserted that the individual is guided by self-interest and also by an 'invisible hand'. He said "It is not to the benevolence of the baker but to his self-interest that we owe our bread". If every one is left free, the individuals will maximise aggregate wealth of the society by maximising individual's wealth. Thus, Adam smit advocated laissez-faire doctrine in economic affairs to maximise national wealth. According to him, the sequence of development was from hunting stage to pastoral stage; and then to agricultural, and finally to commercial and manufacturing stages.

Hildebrand has taken the stages of development on the basis of exchange relationship in the economy. First was the barter economy; and then money economy and finally credit economy.

Bucher has considered development based on the area of transactions. First was the self-sufficient domestic economy without any exchange; and then to town economy and finally national ecooomy.

Some British economists have used the sequence of house hold system first, and then to guild system and then to domestic system and finally factory system.

Karl Marx who revolutionised economic thinking has developed the concept of growth through materialistic interpretation of history. According to him, the stages were feudalism, bourgeosis capitalism, socialism and finally communism.

But, the most widely accepted and also most popular sequence of economic development was given by Prof. Rostow, a specialist in economic development and growth. Let us study the philosophy and stage of economic development of Rostow in detail.

ROSTOW'S STAGE OF ECONOMIC GROWTH

Prof. W.W. Rostow has divided the economic development and growth into five different and distinct stages and explained them on the basis of an analogy of an aeroplane. The five stages envisaged by this economist are (i) The Traditional Society; (ii) The Pre-conditions for take-off; (iii) The Take-off; (iv) Drive to Maturity; and (v) The age of High Mass consumption. He has expounded the concept of self-sustained Growth or self-generating economy as the ultimate goal.

(i) The Traditional Society functions with limited production due to inaccessibility to modern techniques. The output per head is limited, though the area under cultivation can be increased. The traditional societies have to divert a very high proportion of their resources to agriculture and this excessive dependence on agriculture creates a social structure which is usually backward and unproductive. Political power is mainly confined to those who own the land. The traditional society should not be construed as static society. It can increase the level of output and also make adhoc innovation in agriculture and industry. But there will be ceiling on the output due to other factors like population, localised market, absence of medium of exchange, lack of development of other sectors, etc. A cruel Malthusian equilibrium prevailing would set the people feel about the impossibility of economic progress.

(ii) The Pre-condition for take-off is the second stage in which the outlook of the people changes due to spread of education and technical knowledge. People start feeling about the possibility of economic progress. Modern science is applied in production. Enterprising persons prepare to mobilise savings and undertake risks for the scope for internal and external trade widens, due to breaking of the barriers with more investment in transport. Thus modernization makes its appearance. But development moves at a very low speed.

(iii) The take-off: The take-off is a stage in which the obstacles and resista... for growth are almost overcome and forces of economic progress start moving at a reasonable speed. It is a period in which investment and per capita output rise enough to change production techniques so that the upward trend in per capita output is perpetuated. In other words, growth becomes a normal condition for society. The quick emergence of political, social and institutional framework exploits the impulses to growth in modern sectors and keep the effects of growth a recurring and perpetual phenomenon. The analogy in this age is to that of an aeroplane which should overcome the friction by maintaining good speed and take-off from the ground and fly only maintaining the critical speed.

For take-off, it is essential to mobilise internal capital. The savings side of capital formation is very difficult in an underdeveloped economy as the propensity to consume in such a economy is very high and the propensity to save is very low. The major task lies in extracting more savings out of the national income for investment purposes. What should be the percentage of national income to be saved for investment? According to Rostow, the take-off stage is characterised by a high rate of saving and investment; not less that 10 per cent of national income. According to UN experts, capital formation at the rate of 15 per cent of the national income may be necessary even to maintain the existing gap in living standards between the East and the West. According to the Indian Planning Commission, it should be 20 per cent of the national income in view of rapidly growing population. These figures indicate the importance of voluntary savings. But in a country where the propensity to save is very low at the lower level, and conspicuous consumption at a higher level, it may be necessary to resort to compulsion in mobilising savings. The state may even enter into the picture and effect savings on behalf of the community through revenue surpluses; the deficits in the revenue budgets. The profits of public enterprises should be ploughed back into investment.

For take-off it is of utmost importance to mobilise domestic savings. Some take-offs have occurred with foreign capital, whereas some without any capital import, British and Japan are the examples of having effected take-off without import of capital.

Concepts akin to "take-off" have been put forward with a different terminology. They are *"break through"*, *"getting started"*, *"critical minimum effort"* and *"great leap forward"*. Of course the oldest term for these is *"Industrial Revolution"*. Some economists like to use the terms *"the spurt"*, *"the big push"*, etc., Rostow himself dates the various take-offs in history:

Great Britain	"	1783	– 1802
France	"	1830	– 1860
U.S.A.	"	1843	– 1860
Belgium	"	1833	– 1860
Germany	"	1850	– 1873
Japan	"	1878	– 1900
Russia	"	1890	– 1914
Canada	"	1896	– 1914
Argentina	"	1935	
Turkey	"	1937	
China	"	1952	
India	"	1952	

Economists are doubtful about the take-off dates indicated by prof. Rostow. The dates also vary from publication to publication.

(iv) Drive to maturity: Drive to maturity is the resultant of take-off and in this stage the new leading sectors gather momentum. This leads to an increased output surpassing the increase in population. The economy finds its position in the international economy. Goods which were imported earlier are produced in the country and "the make up of the economy changes increasingly as technique improves". Older industries level off and the new industries accelerate. In this stage, the economy can produce anything it likes and this is the characteristic of self generating economy. Self generating economy does not mean self-sufficient economy.

(v) The age of high mass consumption: The age of high mass consumption is the final stage in which the per capita real income is increasing. The masses get the fruits of economy. The economy demonstrates its technological and entreprenecurial superiority.

It is the age of automobiles, durable consumer goods and electronic gadgets. Except the very low-income strata, almost all citizens would be having enough unto spare and the society becomes "affluent". Poverty and hunger are something that could be read only in books. There would be continued stage of full employment and everyone would have increased financial security. In some countries which had reached this stage would also record higher birth rates. This stage is the last stage denoting the attainment of ultimate goal.

Only U.S.A and U.K and some of the western countries have reached this stage of high mass consumption. United States was the first country to reach this stage in 1920 followed by Great Britain.

Review Questions

Section - A

1. What do you mean by Third world countries?
2. What is the definition of an underdeveloped country, according to UN experts?
3. What is 'underdevelopment' according to Indian Planning Commission?
4. What are the three dimensions of underdevelopment?
5. State two essential features of underdevelopment.
6. What are the other names for 'Take-off Stage' in economic development of a country?

Section - B

1. What are the determinants of economic development?
2. What is 'vicious circle of poverty'?
3. What do you mean by 'Market Imperfections'?
4. Define 'Economic Development' and differentiate it from 'Economic growth'.
5. What do you mean by 'Take-off' in economic development?
6. What are the 'non-economic' factors determining economic development?
7. What are the international forces affecting economic development of a country?
8. What is the relationship between economic development and climate of a country?

Section - C

1. Discuss the characteristic feature of 'Underdevelopment'.
2. Explain the concept of 'Dualism' and illustrate it from Indian conditions.
3. Analyse the obstacles to Economic Development.
4. Explain Rostow' stages of Economic Growth.
5. 'Economic Growth'; 'Economic Development'; Do they mean the same or different? Discuss with illustrations and opinions of economists.

Chapter 31

(1)

Unit III.

Agricultural Policy: Vision 2020

We have studied in detail in earlier chapters about the importance of Agriculture in Indian Economy, its role in the development process and also the need for devoting greater interest in the development of agricultural sector. It is only by establishing an agrarian economy which ensures food and nutrition to India's billion people and also raw materials for the expanding industrial sector and adequate surplus for exports, the farming community in the country could hope to thrive. Any reforms in agricultural sector should take note of these factors.

On July 28, 2000, the Minister for Agriculture presented the National Agricultural policy in the parliament. This new policy has been necessitated due to poor growth of agriculture during the last decade of the 20th century, due to capital inadequacy, lack of infrastructural support, controls on movement, lack of demand, poor storage facilities, etc., which resulted in poor growth in agricultural sector and also lack of economic viability in it.

The National Agricultural Policy aims to attain the following objectives

1. A growth rate of over 4 per cent per annum in the agriculture sector.
2. Growth should be based on efficient use of resources and also conservation of soil, water and bio-diversity.
3. Growth should be ensured, not in the aggregate, but growth with equity, which means growth across the entire agricultural regions and also farmers. In other words, there should be effective growth in every farm and region so that the poor farmer will be benefited by the growth process.
4. Agricultural growth should be demand-driven and it should be catering the domestic markets and export market, in spite of challenges posed due to economic liberalisation and also globalisation.
5. Growth should be substainable one, technologically, economically and also environmentally.

To achieve these objectives, the policy statement suggests the following measures to be adopted.

Measures to be Adopted

1. Efforts should be taken to contain biotic pressures on land and indiscriminate division of agricultural lands for non-agricultural uses will be prevented.
2. Unutilised wastelands will be brought under use in agriculture and also afforestation.
3. Multi-cropping and Inter-cropping will be adopted to increase cropping intensity.
4. Nearly two thirds of the cropped area depending on rains will be brought under sustainable rainfed agriculture through water-shed approach for development through a long-term perspective plan.
5. More rational use of surface and ground water will be adopted to prevent over-exploitation of water tables. For this, better technologies like drip and sprinker irrigation will be adopted to make economic and efficient use of water resources.
6. Landless labourers and farmers will be encouraged to involve themselves in the development of pastures and forestry programmes on public waste land by giving them financial incentives and also the benefit of entitlement of trees and pastures.
7. To meet the growing demand for food due to growing population and also increasing demand of raw materials by the expanding agrobased industries, all efforts will be undertaken to increase the productivity and production of crops. Emphasis will be made on producing food crops with higher nutritional value. A major thrust will be given to development of rainfed irrigation, horticulture, floriculture, roots and tubers, plantation crops, aromatic and medicinal plants, bee-keeping and sericulture for augmenting food supply, exports; and generating employment in rural areas.
8. Diversifying agriculture, development of animal husbandry, poultry, dairying and aequa-culture will get high priority, besides cultivation of fodder crops and fodder trees will be encouraged. The involvement of cooperatives and the private sector will be encouraged for the development of animal husbandry, poultry and dairy.
9. The Government will encourage application of biotechnology, remote sensing technologies, pre and post-harvest technologies and also techonologies for environmental protection. The Government will strive towards a regime of financial sustainability if extension service in a phased manner, safeguarding the interest of the poor and vulnerable groups.
10. The Government will endeavour to improve the terms of trade for agriculture with manufacturing sector. Consequent upon removal of quantitative restriction on inputs as per W.T.O. Agreements on Agriculture.

the Government will protect the interest of the farmers by continuously monitoring the international prices and also making appropriate tariff protection. The structure of taxes on foodgrains, other commercial crops and excise duty on farm machinery and implements, fertilizers will be reviewed and rationalised. The Government will keep agriculture outside the preview of taxes, besides continuing the present regime of agricultural subsidies.

Investment & Institutional structure

The National Agricultural Policy candidly accepts that there has been a decline in public sector investment in agriculture. Public investment for narrowing regional imbalances and accelerating development of supportive intrastructure will be stepped up. Besides, private sector investment in agriculture will also be encouraged, more particularly in areas like agricultural research, human resource development, post-harvest management and marketing. For setting up agro-processing units collaboration between the producer cooperatives and the corporate sector will be encouraged.

The following measures will be adopted towards land reforms and rural development for effectively building up institutional structure:

(i) Consolidation of holdings all over the country on the pattern of north western states.

(ii) Redistribution of ceiling surplus lands and wastelands among the landless farmers and unemployed youth.

(iii) Tenancy reforms to recognise the rights of the tenants and sharecroppers.

(iv) Development of lease market for increasing the size of holding by making legal provisions for giving private land on lease for cultivation and agri-business.

(v) Updating and improvement of land records, computerisation and issue of land pass-book to the farmers.

(vi) Recognition of women's rights in land.

Private participation will be promoted through contract farming and land leasing arrangement to allow accelerated technology transfer, capital inflow and assured markets for crop production, especially of oilseeds, cotton and horticultural crops.

Another important feature of the National Agricultural policy is the Agriculture Insurance Scheme as a package insurance policy covering all farmers and all crops throughout the country. This insurance package policy would cover all the risks of the farmer, right from the sowing of the crops to post-harvest operations, including marketing price fluctuations of agricultural produce.

Brief comment and assessment of the new national agricultural policy

The National Policy 2000 promises an era of all-round development in the agricultural or rather rural sector covering not only the production of crops, but also other activities like diarying, poultry keeping, horticulture, aquaculture, animal husbandry, etc. It envisages green revolution in land, white revolution in the production of milk and dairy products and blue revolution relating to aqua and fish culture. In short, the policy theoretically promises a *Rainbow Revolution*.

Apart from these, the policy envisages a 4 per cent annual growth-rate in agriculture, greater participation of private sector through contract farming, dismantling the restrictions on the movement of agricultural commodities throughout the country and price protection in the marketing of produce. Above all, the policy envisages a package of insurance schemes to protect the farmer in his operations.

Regarding the objectives of the policy, nothing adverse could be passed as comment and all the objectives are excellent in theory. But the stark reality is different. The index of agricultural production has been slowly falling since the commencement of Ninth Five-year Plan. The index which was 175.7 in 1996-97 (with base triennium ending 1981-82 = 100) fell to 173.3 in 1999-2000, according to *Economic Survey* (1999-2000). Further, agricultural production which was 199.4 million tonnes in 1996-97 had come down to 199.1 million tonnes in 1999-2000. It looks as though Indian agriculture has reached the inevitable level of stagnation in the fag-end of the last decade. Under these circumstances, it is rather very ambitious to expect 4 per cent growth in agriculture in the coming decades, though it has to be achieved to maintain food security and self-sufficiency in the agricultural sector.

Secondly, the policy talks about *growth in agriculture with equity* which means covering the entire country and the benefit of agricultural growth should reach the poorest farmer as well. In other words, the policy envisages growth without imbalances and regional differences. But the policy is not vocal about the causes for these and it has not identified the states that are lagging behind without using the agricultural potential.

Growth with equity is a tall talk in our country and it is more so in the agricultural sector where the benefit of growth and also the benefits of several schemes would be garnered by the landed gentry and rich farmers who have abundant political clout.

Thirdly, the policy speaks of private investment in agriculture. This is nothing new, as there is lot of private investment in our agriculture in the form of tube-wells, implements, human resources, etc., undertaken by rich farmers in order to increase the level of productivity. But the naked fact is that these private investments would help only the rich farmers to raise their productivity; but the majority of farming community is poor and they cannot undertake private

investment and they have to depend on only public investment to increase the productivity of their farms. Moreover, in backward states where the bulk of the peasantry is poor, public investment on a massive scale will provide the necessary push to agricultural growth.

Fourthly, the Agricultural policy contemplates about private participation through contract farming by land leasing arrangements. The policy attempts to involve the corporate sector. This is nothing but introduction of Contract Farming through the back-door. This type of capital farming under the name contract farming would eventually lead to contraction of labour force in the agricultural sector. Hence, this policy of contract farming may like to come into conflict with the principle of enlarging employment. We know that in our country, the agricultural sector is the large absorber of labour-surplus economy, it is rather unwise to introduce corporate farming which would lead to contraction of employment.

Fifthly, most of the objectives of this new policy have been already stated over years and attempted to be implemented. For example, the policy of consolidation of Holdings, Redistribution of ceiling surplus lands among the landless people, Tenancy Reforms to recognise the rights of the tenants, updating and improvement of land records etc., are already there, by way of agricultural and land reforms since the starting of Agrarian Reforms in the country some 50 years ago. In what way the present policy objectives are new or different from the existing one could not be precisely assessed. The changes are only minor modifications.

Finally, the Government after making an elaborate statement of the National Agricultural policy, has not outlined any machinery of implementation. Several schemes in India have failed due to lack of proper and efficient machinery of implementation. Further, Agriculture is a state subject and how best the cooperation of the state governments could be ensured is the question. Unless this new policy is accompanied by the detailed blue-print of implementation and monitoring technique, the National Agricultural policy will be only in paper or rather it will be only wishful thinking.

AGRICULTURE POLICY: VISION 2020

Indian Agricultural Research Institute, New Delhi

On August 15, 2015, the ICAR submitted the Agricultural policy Vision 2020. This captures the contours of our national policy on agriculture to realize the vision.The following are the essential ingredients of the vision document.

It is gratifying to note that over the last 30 years, the foodgrain production in India went up from about 102 mt in 1973 to over 200 mt in 1999. This was possible mainly because of the increase in yield rather than the expansion of the cultivated area. Foodgrains availability per capita during this period went up from 452 gm/day to over 476 gm/day, but at the same time, the population almost

doubled crossing 1 billion. As a result of this the poverty level declined from 55% in 1973 to 26% in 1998. But still about 250 m lie below the poverty line, making India accounting for one fifth of the world's poor.

ICAR estimated the demand for goodgrains (feed, seed, wastage and export) would be in the order of 256 mt by 2020, assuming that the percapita GDP grows at 3.5% This demand includes 112mt of rice, 82mt of wheat, 39mt of coarse grains and 22mt of pulses. The demand for sugar, fruits, vegetables, and milk is estimated to grow to a level 33mt, 77mt, 136mt and 116mt respectively. The demand for meat is projected at 9mt, fish 11mt and eggs 77.5 billion (Table 1).

According to ICAR, if the projected demand is to be met, then the country must achieve a per hectare yield of 2.7 tons for rice, 3.1 tons for wheat, 2.1 tons for maize, 1.3 tons for coarse cereals, 2.4 tons for cereal, 1.3 tons for pulses, 22.3 tons for potato, 25.7 for vegetables, and 24.1 tons for fruits. The production of livestock and poultry products must be improved 61% for milk, 76% for meat, 91% for fish, and 169% for eggs by the year 2020 over the base year TE 1999.

Despite the structural change, agriculture still remains a key sector, providing both employment and livelihood opportunities to more than 70 percent of the country's population who live in rural areas. The contribution of small farmers to the national and household food security has been steadily increasing. The water availability for agricultural uses has reached a critical level and deserves urgent attention of all concerned. But the average yield of crops remains a major constraint.

Vast uncommon opportunities to harness agricultural potential still remain, which can be tapped to achieve future targets. Therefore the focus was only a few commodities like rice and wheat, which could quickly contribute to increased total food and agricultural production but at the cost of considerable depletion of natural resource s and the rainfed dry areas having maximum concentration of resource poor farmers remained ignored, aggravating problems of inequity and regional imbalances

Hence it was realized, that while determining national priority, the following recurring and emerging issues for sustainable agricultural development and poverty alleviation must be considered:

- Population pressure and demographic transition;
- Resource base degradation and water scarcity;
- Investment in agriculture, structural adjustment and impact on the poor;
- Globalization and implication on the poor;
- Modern science and technology and support to research and technology development; and
- Rapid urbanization and urbanization of poverty, and deceleration in rural poverty reduction.

Therefore, the agricultural policy must take note of the following uncommon opportunities:

Conservation of natural resources and protection of environment.

Vast untapped potential of our soil and water resources, and farming systems

Technology revolution especially in the areas of molecular biology, biotechnology, space technology, ecology and management.

Revolution in informatics and communication and the opportunity of linking farmers, extension workers and scientists with the national and international databases.

Vision:

So it is desired that the Agriculture Policy document must articulate a clear vision on following few basic parameters of the agricultural sector around which a policy framework must be developed.

Organization of agriculture: A clear long-term vision where inter-sectoral linkages are explicit.

Sustainability and natural resource management: Prescription must lie in the domain of political economy. Otherwise, allocating funds for watershed development, agroforestry, soil conservation, and so on will not produce desired results.

Institutional change: Policy document must spell out new approaches and new institutions free from the shackles of bureaucratic and self-help framework.

Investment priorities: There is a need to develop a consensus on investment themes, priorities and policies. Policy document must lend strength to the claim for greater investment in rural areas, and also re-examine its programmes in the light of complementarities.

Incentives: Document must articulate a clear vision on the incentive framework.

Risk management

Increasing the yield

As there is not much scope for increasing the area under cultivation, to manage the forecasted demand for food only way out is to increase the yield. There is a need to strengthen adaptive research and technology assessment, refinement and transfer capabilities of the country so that the existing wide technology transfer gaps are bridged. At the same time there is a vast scope for increasing the genetic yield of vegetables, fruits as well as other food crops and livestock and fisheries products. Besides maintenance breeding, greater effort should be made towards developing hybrid varieties as well as varieties suitable for export purposes. Agronomic and soil researches in the region need to be intensified to address location specific problems as factor productivity growth is decelerating in major production regimes.

To achieve a production breakthrough, research on coarse grains, pulses and oilseeds must be activated. Hybrid rice, single cross hybrids of maize and pigeonpea hybrids also offer new opportunities. Soybean, sunflower and oil palm will help in meeting future oil demands successfully. Forest cover must be preserved to minimize the climatic disturbances and to provide enough of fuel and fodder. Milk, meat and drought capacity of our animals needs to be improved quickly through better management practices.

Integrated nutrient management: Attention should be given to balanced use of nutrients. Phosphorus deficiency is now the most widespread soil fertility problem in both irrigated and unirrigated areas. Correcting the distortion in relative prices of primary fertilizers could help correct the imbalances in the use of primary plant nutrients nitrogen, phosphorus, and potash and use of bio-fertilizers. To improve efficieney of fertilizer use location-specific research on efficient fertilizer practices must be encouraged along with improvement in soil testing services, development of improved fertilizer supply and distribution systems, and development of physical and institutional infrastructure.

Arresting deceleration in total factor productivity (TFP): Growth in TFP can be achieved only through public investment in irrigation, infrastructure development (road, electricity), research and extension and efficient use of water and plant nutrients. The most serious effect of deceleration in total investment has been on agricultural research and extension and it affects increasing yield per hectare. All the efforts need to be concentrated on accelerating growth in TFP, whilst conserving natural resources and promoting ecological integrity of agricultural system. For this research efforts need to be location specific and low input use technologies with the emphasis on the regions where the current yields are below the required national average yield. Further literacy is very closely related to productivity and modernization. Hence, simultaneous focus on improving literacy is the need of the hour. Added to this development of agricultural growth-technology and its dissemination, rural infrastructure (roads), education and irrigation - amount to a 'win- win' strategy for reducing rural poverty by also increasing the non-farm economy and raising rural wages. Creating infrastructure in less developed areas, better management of infrastructure and introduction of new technologies can further enhance resource productivity and TFP.

Though it was said that technological gains have not occurred in a number of crops, notably coarse cereals, pulses and in rainfed areas, analysis on TFP growth based on cost of cultivation data does not prove this perception (Table 2). In all the 18 major crops considered in the analysis, several states have recorded positive TFP growth. This is spread over major cereals, coarse grains, pulses, oilseeds, fibres, vegetables, etc. In most cases, in the major producing states, rainfed crops also, showed productivity gains. There is thus strong evidence that technological change has generally pervaded the entire crop sector.

There are, of course, crops and states where technological stagnation or decline is apparent and these are the priorities for present and future agricultural research.

Bridging Yield Gaps: In order to exploit untapped potential in the yield for all crops in most of the states accounting for more than three-fourths of crop area, focus must be on the states in which current yield levels are below the national average yield. Bihar, Orissa, Assam, West Bengal and Uttar Pradesh are the priority states accounting for 66% of rice area which need emphasis on bridging yield gaps to attain target demand and yield growth. For wheat we must focus mainly on Uttar Pradsh, Madhya Pradesh, Bihar and Rajasthan accounting for 68% of wheat area. For coarse cereals, major emphasis must be given to Rajasthan, Maharashtra, Karnataka, Madhya Pradesh, Andhra Pradesh and Uttar Pradesh. To meet the demand for pulses greater emphasis is needed in almost all the states with particular focus on Madhya Pradesh, Maharashtra, Rajasthan, Gujarat, Andhra Pradesh, Karnataka and Uttar pradesh which have three-fourths of total pulse area. The target growth in pulse yield from these states annually must be 6 per cent; otherwise the nation will experience shortage of pulses for all times to come. The task of attaining self sufficient in pulses production looks difficult without area expansion and irrigation. In cases of oilseeds greater emphasis is needed on Andhra Pradesh, Madhya Pradesh, Rajasthan, Maharashtra, Karnataka, West Bengal and Uttar Pradesh to increase the yield by about 4 per cent. The possibilities of developing processing industry for extracting edible oils from non-oilseeds commodities, like rice bran etc, need to be explored. The introduction of palm cultivation for oil production may release pressure on traditional oilseeds crops to meet.

I to increase the yields per hectare of sugarcane by about 4% per annum, research and development efforts are to be strengthened in Uttar Pradesh and Bihar. The demand for sugar can also be met by developing mini sugar mills so that substantial sugarcane production can be diverted from Khandsari to sugar production. This may also help release some sugarcane area to other crops. Cotton crop requires greater yield improvement emphasis on 81 per cent of the cotton area in Maharashtra, Gujarat and Andhra Pradesh.

Water for Sustainable Food Security:

The next issue is relating to water availability. It is now observed that we have to produce more and more from less and less land and water resources. Added to this, the depletion of ground water, major problems about the serious environmental and social problems witnessed with major irrigation projects and the necessity to improve production, security of food, alleviation of poverty are all becoming prirties. Water availability per capita was over 5000 cubic metres (m3) per annum in 1950. It now stands at around 2000 m3 and is projected to decline to 1500 m3 by 2025 and the quality of available water is deteriorating. Also, there are gross inequalities between basins and geographic regions.

With increasing demand for water by the other sectors and the depletion of water resources, water is diverted from agricultural use. Years back agriculture use of water was 80% of total water withdrawals, but a study projected that at the current rate of water diversion for other uses would make availability of water for agricultural use in India may be reduced by 21 percent by 2020, directly impacting the yields of irrigated crops, especially rice, thus price rise and withdrawal of food from poor masses. Policy reforms are needed from now to avoid the negative developments which include the establishment of secure water rights to users, the decentralization and privatization of water. Apart from these, efforts to conserve available water with the technology support need to be explored.

Emphasis on Rainfed Ecosystem:

In the rainfed ecosystems initiatives are necessary to disseminate improved dry land technology practices so as to make the agricultural occupation of the farmers in these regions to be worthwhile. Necessary support need to be extended to credit flow and investment in such technologies so as to minimize the reduction in the total area of cultivable land.

Accent on Diversification of Agriculture and Value Addition:

The need of the hour is to emphasize on diversification of agriculture. That is, from the production of staple crops, the farmers should be trained and motivated to practice intensive production of fruits, vegetables, flowers and other high value crops which would improve the income and generate effective demand for food. With reduction of arable land area, by adopting diversification in agricultural production of high value and labour intensive commodities, the twin objectives of income and employment generation among farmers can be achieved. This would also help the farmers with small size of farms.

Accent on Post-Harvest Management, Value Addition and Cost-Effectiveness

Yet another thrust area is the post harvest technology. It is reported that though India holds the second rank in the production of fruits and vegetables nearly 70 % of them is lost due to lack of improved post harvest technologies. Limited availability of cold storage adds to the constraints. Therefore, emphasis should therefore be placed to develop post-harvest handling, agro-processing and value-addition technologies not only to prevent the high losses, but also to improve quality through proper storage, packaging, handling and transport. This would also enable Indian agricultural sector to contribute more by way of exports.

Increased Investment in Agriculture and Infrastructures:

Declining productivity and low capital formation in the agriculture sector is mainly because of decreasing public investment in this sector. This calls for accelerated investment efforts on the following lines :

Increasing productivity of crops, livestock, strains of microbes with improved technologies to minimize socio economic and environmental constraints.

Improved environmental friendly production practices, post harvest and value addition technologies.

Ensuring timely availability of quality inputs at reasonable prices, institutional and credit supports, especially for small and resource-poor farmers, and support to land and water resources development;

Strenghtening procurement, assessment and transfer and extension system involving appropriate linkages and partnerships with an emphasis on the small farmers segment;

Increasing rural employment opportunities by enlarging the agro processing and agro industries improving rural infrastructures, ensuring access to reliable market information and effective linking of farm to market with all season road infrastructure;

Steps to cater to the needs and participation of women farmers; and

Primary education, health care, clean drinking water, safe sanitation, adequate nutrition, particularly for children (including through mid-day meal at schools) and women.

The above investments will need to be supported through appropriate policies that do not discriminate against agriculture and the rural poor. Given the increasing role of small farmers in food security and poverty alleviation, development efforts must be geared to meet the needs and potential of such farmers through their active participation in the growth process.

Fighting Poverty and Hunger

It is estimated that about one fourth of our population (251m) belong to below the poverty line category. Of these 68% is in rural areas and the remaining constitutes urban poor. The migration of poor to urban areas in search of employment has gone up, as the area under cultivation has been shrinking since 1983, thanks to indiscriminate conversion of agricultural land for commercial and housing purposes. This results in increasing the need for food security of both rural and urban poor.

Accent on Empowering the Small Farmers

The contribution of the small holders towards food availability for increasing population has increased, though they remain insecure and vulnerable in the society. To support them off-farm and on-farm employment opportunities need to be improved. It is observed that liberalization policy has not added non-farm employment in a significant manner in the rural areas. Necessary support through budgetary support and banking systems needs to be promoted, apart from introducing skill development programme in the rural areas with focus on small holders.

Disaster Management

It could be noted that the frequency and intensity of disasters like floods, droughts, cyclones and earthquakes have increased over these years. This directly impacts the production and productivity in agricultural sector. Lack of preparedness is one major reason for this status. Efforts are underway to adopt relevant technologies to improve the forecasting of such disasters and developing the infrastructure to manage these disasters. Though accurate forecasting is still evading us, the available information need to be shared with the stake holders in agricultural sector to prepare them better during times of disasters. The experiences of other countries in this regard would be immensely useful. The technology and methods of mitigation of effects of such disasters need to be learnt and applied so as to ensure food security for all.

Keeping Pace with Globalisation

Initiatives to globalize agricultural trade would enable the small and medium farmers to get access to markets, new opportunities for generating employment and income. Any gain in productivity can be achieved by increasing the flow of investments into sustainable agricultural practices. With this global exposure, the farmers will face the necessity to adopt better and improved technologies which would encourage inflow of capital in to agricultural sector. This would help to improve the status of subsistence farmers, fishermen and tribal community in the short and medium term.

Exploiting Cyberspace

India is now in a better status compared to early 1980's and 1970's in terms of building database at various levels. Linking this with international data base would add value of information and facilitate appropriate decision making at different levels. Development of region / location specific production models, improved forecast of monsoon, use of remote sensing and GIS technologies to map the natural and other agricultural resources would go a long way to improve the use of land and water resources in a planned way. Added to these, market intelligence e-business and better management of disease and pest incidences, etc., would also enable the farm sector to improve its contributions to national income.

Table 31.1: Demand for Agricultural Commodities

Item	Area (Million ha)	Achieved TE 1997-99		Demand in 2020 (Million tons)		Yield target in 2020	
		Production (million tons)	Yield (Kg/ha)	LIG	HIG	LIG	HIG
Rice	42.2	85.7	1903	112.4	111.9	2664	2652
Wheat	26.2	69.1	2582	82.3	79.9	3137	3045
Coarse cereal	30.7	30.4	1041	38.9	37.3	1268	1214
Cereal	99.1	185.2	1814	233.6	229.0	2357	2311
Pulses	21.7	13.8	608	22.3	23.8	1029	1095
Foodgrains	120.8	199.0	1595	255.9	252.8	2119	2092
Edible oil	28.6	6.4	269	10.8	11.4	379.7	399
Potato	1.2	21.6	17188	27.8	30.6	22279	24566
Vegetables	5.3	74.5	14204	135.6	168.0	25673	31812
Fruits	3.2	43.0	13437	77.0	93.6	24064	29259
Sugarcane Gur	3.7	26.9	7006	32.6	33.7	8788	9088
Milk	-	71.2	-	115.8	137.3	-	-
Meat	-	5.0	-	8.8	11.4	-	-
Eggs number	-	2873	-	7750	10000	-	-
Fish	-	5.3	-	10.1	12.8	-	-

(*Source:* R.S.Paroda and Praduman Kumar (2000). Food Production and Demand in South Asia. Agril. Econ. Res. Rev. 13(1):1-24) HIG: High income growth 5.5% per capita GDP growth Demand includes

LIG: Low income growth 3.5% per capita GDP growth

export 4.7mt rice, 3.6 mt wheat, and vegetables 2.2 mt fruits 1.4mt And fish 0.49 mt.

Table 31.2: Total Factor Productivity trends for crops in selected states

Crop	*TFP trend*		
	Increasing	*No change*	*Declining*
Paddy	Andhra Pradesh, Orissa, Punjab, Tamil Nadu, Uttar Pradesh, West Bengal	Assam, Haryana	Bihar, Karnataka, Madhya Pradesh
Wheat	Haryana, Punjab, Rajasthan, Uttar Pradesh	Madhya Pradesh	
Sorghum	Andhra Pradesh, Maharashtra, Karnataka	Madhya Pradesh, Rajasthan	
Pear millets Maize	Gujarat, Haryana, Rajasthan, Madhya Pradesh	Rajasthan, Uttar Pradesh	
Barley	Uttar Pradesh	Rajasthan	Madhya Pradesh
Chickpea	Haryana	Rajasthan, Uttar Pradesh	
Black gram	Maharashtra	Andhra Pradesh, Madhya Pradesh, Uttar Pradesh	Orissa
Moong	Madhya Pradesh	Andhra Pradesh, Rajasthan	Orissa
Pigeon pea	Madhya Pradesh	Gujarat, Uttar Pradesh	
Groundnut *Karnataka, Maharashtra, Orissa*	Andhra Pradesh,	Gujarat, Tamil Nadu	
Rapeseed & Mustard	Rajasthan, Uttar Pradesh	Assam, Haryana	Punjab
Soyabean		Madhya Pradesh	
Sugarcane	Bihar	Andhra Pradesh , Haryana, Karnataka, Maharashtra, Uttar Pradesh	

Cotton	Gujarat, Haryana, Tamil Nadu	Andhra Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Punjab	
Jute	Assam, Bihar, West Bengal		Bihar
Onion	Maharashtra	Himachal Pradesh	
Potato	Uttar Pradesh	Himachal Pradesh	

(Source: IARI-FAO/RAP study (2001) based on cost of cultivation data, DES, GOI)

Table 31.3: Priority states for increasing national average yield of crops, India

Crops	*Target growth Per cent*	*Priority states*	*Percent share of priority states in total crop area*
Rice	2.35	BH, OR, AS, WB, UP	66
Wheat	2.22	UP, MP, BH, RJ	68
Sorghum	1.36	MH, KN, MP, AP	82
Pear-millets	0.43	RJ	47
Maize	2.00	BH, Up, MP, RJ	60
Chickpea	4.34	MP, RJ, UP, MH	83
Pigeon pea	4.28	MH, GJ, KN, AP, MP	72
Groundnut	2.51	AP, GJ, KN, MH	76
Rapeseed & Mustard	2.11	RJ, UP, MP, WB	74
Soyabean	1.11	MP, RJ	83
Cotton	3.78	MH, GJ, KN, RJ, AP	74
Sugarcane	3.07	UP	51

Note: **AP** : Andhra Pradesh. AS: Assam. BH: Bihar. GJ: Gujarat. KN: Karnataka.
MP : Madhya Pradesh. MH: Maharashtra. OR: Orissa RJ: Rajasthan.
UP : Uttar Pradesh. WB: West Bengal.

Review Questions

Section - A

1. What is the growth-rate to be attained in agriculture, according to National Agricultural policy 2000?
2. What was the index of agricultural production in 1999-2000 with 1981-82 100 as the base?
3. What is Rainbow Revolution?
4. What is meant by Growth with Equity?

Section - B

1. Briefly enumerate the measures to be adopted in the agricultural policy.
2. What is corporate Participation in Agriculture?
3. What are the institutional structure contemplated in Agricultural policy?

Section - C

1. Discuss in brief about the New National Agricultural policy 2000.
2. Comment and criticise the New Agricultural Policy.
3. Discuss about the objectives of Agricultural Policy 2000.
4. Explain the features of Vision 2020 for Agricultural sector.