UG S2-05
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FOUR YEAR BACHELOR'S DEGREE COURSE

(CBCS and in accordance with NEP 2020)

SEMESTER - II

PERSPECTIVES ON INDIAN ECONOMY

Surya Kumar Bhuyan School of Social Sciences
KRISHNA KANTA HANDIQUI STATE OPEN UNIVERSITY

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COURSE INTRODUCTION

This is an interdisciplinary course in your BA programme of this University. This course shall be helpful for gaining an insight into the problems, issues and policy framework of the Indian Economy. After going through this Course, you will be able to discuss the different socio-economic problems of our society in the changing context of the economy. This course has total 11 units and carries 3 credits weightage in your curriculum.

The first unit discusses about the nature of the Indian economy and India's national income, its trend, size and composition. The second unit deliberates on population and human resources in the context of the Indian economy. The third unit of the course deliberates on infrastructure. Here, the status of different infrastructural areas, viz., energy and power, transport, communication and urban infrastructure have been discussed. The recent initiative like Smart Cities has also been discussed. The next three units of the course, i.e., units 4 to 6 discuss some of the issues of the agricultural sector of the Indian economy. These three units will be helpful in getting insights into the role of agriculture in Indian economy, its nature and the trend of its production and productivity. Apart from this, you will also be able to find out the factors that influence the productivity of Indian agriculture. The adoption of new agriculture, most popularly known as the 'Green Revolution' has also been discussed. A few important issues relating to agricultural finance and agricultural marketing has also been discussed in the fifth Unit. The sixth unit discusses food security. In this unit, the concept of food security, salient features of Food Security Act 2013 the public distribution systems and its impact on poverty as well as the problems of the PDS have been discussed. The seventh unit of the course discusses about the Indian industrial sector. Here, the prospects, policy and issues faced by the industrial sector have been discussed. The eighth unit deliberates on the role of the tertiary sector in Indian economy. Here, the recent growth and major issues faced by the service sector have been discussed. The next unit of the course discusses the problems relating to the informal economy of India. The tenth unit of the course discusses planning for development. The overall objectives and achievements of economic planning, and the major objectives of the last Five year plan have been discussed in the unit. The recent changes in the approach to economic planning has also been discussed here. The last unit of the course discusses about economic reforms and globalisation. The post economic reform environment has been discussed in the unit.

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

UNIT 1: INDIAN ECONOMY: ITS BASIC CHARACTERISTICS, DEVELOPMENT AND GROWTH

UNIT STRUCTURE

1.1 Learning Objectives

1.2 Introduction

1.3 Indian Economy in the Pre-independence Period

- 1.3.1 Agricultural Sector
- 1.3.2 Industrial Sector
- 1.3.3 Foreign Trade
- 1.3.4 Demographic Condition & Occupational Structure
- 1.3.5 Infrastructure

1.4 Indian Economy: Characteristics and Emerging Issues

- 1.4.1 Characteristics of India as a Developing Economy
- 1.4.2 Emerging Issues facing the Indian Economy

1.5 Trend in National Income: Growth and Its Composition

- 1.5.1 Trend of Growth in National Income
- 1.5.2 Composition of National Income

1.6 Let Us Sum Up

1.7 Further Reading

1.8 Answers to Check Your Progress

1.9 Model Questions

1.1 LEARNING OBJECTIVES

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

- be familiar with the state of the Indian economy in 1947, the year of India's Independence
- describe the factors that led to the underdevelopment and stagnation of the Indian economy
- become familiar with the different sectors of the Indian economy
- discuss the characteristics of India as a developing economy
- trace the emerging issues that the Indian economy faces today

- discuss the trend of growth and composition of national income in India.

1.2 INTRODUCTION

The primary objective of this unit is to make you familiar with the basic features of the Indian economy, in the aftermath of Independence as well as in the present context. It is equally important to know something about the country's economic past to understand its present state and future prospects. So, let us first look at the state of India's economy prior to the country's independence.

The structure of the Indian economy today is not just of current making; it has its roots steeped in history, particularly in the period when India was under the British rule which lasted for almost two centuries before India finally won its independence on 15 August 1947. The sole purpose of the British colonial rule in India was to reduce the country to turn it into a feeder economy for Great Britain's own rapidly expanding modern industrial base. An understanding of the exploitative nature of this relationship is essential for any assessment of the kind and level of development which the Indian economy has been able to attain over the last six decades.

1.3 INDIAN ECONOMY IN THE PRE-INDEPENDENCE PERIOD

India had an independent economy before the advent of the British rule. Though agriculture was the main source of livelihood for most people, yet, the country's economy was characterised by various kinds of manufacturing activities. India was particularly well known for her handicraft industries in the fields of cotton and silk textiles, metal and precious stone works etc. These products enjoyed a worldwide reputation of the fine quality of material used and the high standards of craftsmanship. The economic policies pursued by the colonial government in India were more concerned with the protection and promotion of the economic interests of their home economy than with the development of the Indian economy. Such policies brought

about a fundamental change in the structure of the Indian economy — transforming the country into a net supplier of raw materials to the British economy and consumer of finished industrial products from Britain.

Obviously, the colonial government never made any sincere attempt to estimate India's national and per capita income. Some individual attempts which were made to measure such incomes yielded conflicting and inconsistent results. Among the notable estimators — Dadabhai Naoroji, William Digby, Findlay Shirras, V.K.R.V. Rao and R.C. Desai — it was Rao whose estimates of the national and per capita incomes during the colonial period were considered very significant. However, most studies did find that the growth of the country's aggregate real output during the first half of the twentieth century was less than two per cent coupled with a meagre half per cent growth in per capita output per year.

1.3.1 Agricultural Sector

India's economy under the British colonial rule remained fundamentally agrarian — about 85 per cent of the country's population lived mostly in villages and derived livelihood directly or indirectly from agriculture. However, despite being the occupation of such a large population, the agricultural sector continued to experience stagnation and, not infrequently, unusual deterioration. Agricultural productivity became incrementally low, though in absolute terms, the sector experienced some growth due to the expansion of the aggregate area under cultivation. This stagnation in the agricultural sector was caused mainly because of the various systems of land settlement that were introduced by the colonial government. Under the zamindari system which was implemented in the then Bengal Presidency comprising parts of India's present-day eastern states, the profit accruing out of the agriculture sector went to the zamindars instead of the cultivators. However, a considerable number of zamindars, and not just the colonial government, did nothing to improve the condition of agriculture. The

main interest of the zamindars was only to collect rent regardless of the economic condition of the cultivators; this caused immense misery and social tension among the latter. To a very great extent, the terms of the revenue settlement were also responsible for the zamindars adopting such an attitude; dates for depositing specified sums of revenue were fixed, failing which the zamindars were to lose their rights. Besides this, low levels of technology, lack of irrigation facilities and negligible use of fertilisers, all added up to aggravate the plight of the farmers and contributed to the dismal level of agricultural productivity. There was, of course, some evidence of a relatively higher yield of cash crops in certain areas of the country due to commercialization of agriculture. But this could hardly help farmers in improving their economic condition as, instead of producing food crops, now they were producing cash crops which were to be ultimately used by British industries back home. India's agricultural production received a further setback due to the country's partition at the time of independence. A sizeable portion of the undivided country's highly irrigated and fertile land went to Pakistan; this had an adverse impact upon India's output from the agriculture sector. Particularly affected was India's jute industry since almost the whole of the jute producing area became part of East Pakistan (now Bangladesh). India's jute goods industry (in which the country had enjoyed a world monopoly so far), thus, suffered heavily for lack of raw material.

1.3.2 Industrial Sector

As in the case of agriculture, so also in manufacturing, India could not develop a sound industrial base under the colonial rule. Even as the country's world famous handicraft industries declined, no corresponding modern industrial base was allowed to come. The primary motive of the colonial government behind this policy of systematically deindustrialising India was two-fold. The intention was, first, to reduce India to the status of a mere exporter of important

raw materials for the upcoming modern industries in Britain and, second, to turn India into a sprawling market for the finished products of those industries so that their continued expansion could be ensured to the maximum advantage of their home country — Britain. In the unfolding economic scenario, the decline of the indigenous handicraft industries created not only massive unemployment in India but also a new demand in the Indian consumer market, which was now deprived of the supply of locally made goods. This demand was profitably met by the increasing imports of cheap manufactured goods from Britain. During the second half of the nineteenth century, modern industry began to take root in India but its progress remained very slow. Initially, this development was confined to the setting up of cotton and jute textile mills. The cotton textile mills, mainly dominated by Indians, were located in the western parts of the country, namely, Maharashtra and Gujarat, while the jute mills dominated by the foreigners were mainly concentrated in Bengal. Subsequently, the iron and steel industries began coming up in the beginning of the twentieth century. The Tata Iron and Steel Company (TISCO) was incorporated in 1907. A few other industries in the fields of sugar, cement, paper etc. came up after the Second World War. However, there was hardly any capital goods industry to help promote further industrialisation in India. The establishment of a few manufacturing units here and there was no substitute to the near wholesale displacement of the country's traditional handicraft industries. Furthermore, the growth rate of the new industrial sector and its contribution to the Gross Domestic Product (GDP) remained very small. Another significant drawback of the new industrial sector was the very limited area of operation of the public sector. This sector remained confined only to the railways, power generation, communications, ports and some other departmental undertakings.

1.3.3 Foreign Trade

India has been an important trading nation since ancient times. But the restrictive policies of commodity production, trade and tariff

pursued by the colonial government adversely affected the structure, composition and volume of India's foreign trade. Consequently, India became an exporter of primary products such as raw silk, cotton, wool, sugar, indigo, jute etc. and an importer of finished consumer goods like cotton, silk and woollen clothes and capital goods like light machinery produced in the factories of Britain. For all practical purposes, Britain maintained a monopoly control over India's exports and imports. As a result, more than half of India's foreign trade was restricted to Britain while the rest was allowed with a few other countries like China, Ceylon (Sri Lanka) and Persia (Iran). The opening of the Suez Canal further intensified British control over India's foreign trade. The most important characteristic of India's foreign trade throughout the colonial period was the generation of a large export surplus. But this surplus came at a huge cost to the country's economy. Several essential commodities—food grains, clothes, kerosene etc. — became conspicuous by their acute scarcity in the domestic market. Furthermore, this export surplus did not result in any flow of gold or silver into India. Rather, this was used to make payments for the expenses incurred by an office set up by the colonial government in Britain, expenses on war, again fought by the British government, and the import of invisible items, all of which led to the drain of Indian wealth.



CHECK YOUR PROGRESS

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

(a) India's economy under the British colonial rule remained fundamentally agrarian. (T/F)

(b) V.K.R.V. Rao's estimation of the national and per capita incomes during the colonial period were considered very significant. (T/F)

Q 2: When was TISCO formed? What is the full form of TISCO.

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Q 3: Why did the colonial government try to de-industrialise the Indian economy? (Answer in about 60 words)

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1.3.4 Demographic Condition & Occupational Structure

Demographic Condition : Various details about the population of British India were first collected through a census in 1881. Though suffering from certain limitations, it revealed the unevenness in India's population growth. Subsequently, every ten years such census operations were carried out. Before 1921, India was in the first stage of demographic transition. The second stage of transition began after 1921. However, neither the total population of India nor the rate of population growth at this stage was very high. The various social development indicators were also not quite encouraging. The overall literacy level was less than 16 per cent. Out of this, the female literacy level was at a negligible low of about seven per cent. Public health facilities were either unavailable to large chunks of population or, when available, were highly inadequate. Consequently, water and air-borne diseases were rampant and took a huge toll on life. No wonder, the overall mortality rate was very high and in that, particularly, the infant mortality rate was quite alarming—about 218 per thousand in contrast to the present infant mortality rate of 30 per thousand. Life expectancy was also very low—32 years in contrast to the present 67 years and 9 months. In the absence of reliable data, it is difficult to specify the extent of poverty at that time but there is no doubt that extensive poverty prevailed in India during the colonial period which contributed to the worsening profile of

India's population of the time.

Occupational Structure : During the colonial period, the occupational structure of India, i.e., distribution of working persons across different industries and sectors, showed little sign of change. The agricultural sector accounted for the largest share of workforce, which usually remained at a high of 70-75 per cent while the manufacturing and the services sectors accounted for only 10 and 15-20 per cent respectively. Another striking aspect was the growing regional variation. Parts of the then Madras Presidency (comprising areas of the present-day states of Tamil Nadu, Andhra Pradesh, Kerala and Karnataka), Maharashtra and West Bengal witnessed a decline in the dependence of the workforce on the agricultural sector with a commensurate increase in the manufacturing and the services sectors. However, there was an increase in the share of workforce in agriculture during the same time in states such as Orissa, Rajasthan and Punjab.

1.3.5 Infrastructure

Roads constructed in India prior to the advent of the British rule were not fit for modern transport. The colonial administration also could not accomplish much on this front due to a paucity of funds. The roads that were built primarily served the purposes of mobilising the army within India and drawing out raw materials from the countryside to the nearest railway station or the port to send these to far away England or other lucrative foreign destinations. There always remained an acute shortage of all weather roads to reach out to the rural areas during the rainy season. Naturally, therefore, people living mostly in these areas suffered grievously during natural calamities and famines. The British introduced the railways in India in 1850 and it is considered as one of their most important contributions. The railways influenced the structure of the Indian economy in two important ways. On one hand, it enabled people to

undertake long distance travel and thereby break geographical and cultural barriers, while, on the other, it fostered commercialisation of Indian agriculture which adversely affected the comparative self-sufficiency of the village economies in India. The volume of India's export trade undoubtedly expanded but its benefits rarely accrued to the Indian people. The social benefits, which the Indian people gained owing to the introduction of the railways, were thus outweighed by the country's huge economic loss. Along with the development of roads and railways, the colonial rulers also took measures for developing the inland trade and sea lanes. However, these measures were far from satisfactory. The inland waterways, at times, also proved uneconomical as in the case of the Coast Canal on the Orissa coast. Though the canal was built at a huge cost to the government exchequer, yet, it failed to compete with the railways, which soon traversed the region running parallel to the canal, and ultimately the canal had to be abandoned. The introduction of the expensive system of electric telegraph in India, served the purpose of maintaining law and order. The postal services, on the other hand, despite serving a useful public purpose, remained all through inadequate.

By the time India won its independence, the agricultural sector was already saddled with surplus labour and extremely low productivity. The industrial sector was crying for modernisation, diversification, capacity building and increased public investment. Foreign trade was oriented to feed the Industrial Revolution in Britain. Infrastructure facilities, including the famed railway network, needed upgradation, expansion and public orientation. Prevalence of rampant poverty and unemployment required welfare orientation of public economic policy. In a nutshell, the social and economic challenges before the country were enormous.



CHECK YOUR PROGRESS

Q 4: State whether True (T) or False (F)

(a) The population of British India was first collected through a census in 1881. (T/F)

(b) By the time India won its independence, the agricultural sector was transformed into a modern agricultural sector. (T/F)

Q 5: Mention the status of a few social indicators during the British period. (Answer in about 60 words)

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Q 6: The introduction of the railways in our country brought enormous prosperity to the Indian economy. Do you agree with this statement? Justify your view. (Answer in about 60 words).

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1.4 INDIAN ECONOMY : CHARACTERISTICS & EMERGING ISSUES

in this section, we shall discuss two major aspects of the Indian economy, viz., its basic features as a developing economy, and the emerging issues.

1.4.1 Characteristics of India as a Developing Economy

The Indian economy has all the characteristics of a developing economy. The main characteristics of its economy are as follows:

- **Low level of income :** The per capita income in India is one of the lowest in the world. Low level of income means low standard of living and low levels of consumption. Whatever progress has been made in production since independence is not reflected in the per capita income of the country. This is because of the high growth in population. There are wide disparities in the level of incomes and about one third of the Indian population live below the poverty line. Due to low standards of living, the efficiency of the labour is low.
- **Pre-dominance of agriculture :** Agriculture has traditionally played a major role in providing employment and income in the economy. However, in the post-reform period, the contribution of agriculture as shares in employment and income has witnessed a declining trend. As per a recent study of NITI Aayog,as in 2020-21, the share of workforce in agriculture in the national economy has declined from 69.2 percent in 1950-51 to 46.5 in 2020-21. On the other hand, the contribution of agriculture to India's national income (measured in constant prices of 2011-12) had declined from 61.7 percent to 16.3 percent during the said period. Significantly, gross food production of the agricultural sector has grown from 106 million toones in 1950 to 936 million tonnes in 2021-22. During the same time, the total agricultural workers has increased from 9.72 cores in 1950-51 to 24.67 crores in 2021-22. This shows that the CAGR (compound annual growth rate) of total food produciton (3.12 percent) is higher than the growth of workforce in agriculture (1.34 percent).

  As against this, in most developed countries, only 2 percent to 4 percent of the workforce is engaged in agriculture and the contribution of this sector to GDP happens to be only about 2 percent to 9 percent. In India, the agricultural sector is still dependent on the monsoons and technology that is used is very backward.

- **Capital deficiency :** Low level of income results in low level of saving and low level of capital formation. Due to inadequate availability of capital, other resources such as labour and natural resources remain unutilised and unexploited.
- **Technological backwardness :** In most sectors, technology used in production is still very backward. Investment in research and development is very low and this results in import of technology.
- **Inadequate infrastructure :** Infrastructure facilities such as transport, communication, power are required both for industrial production as well as agricultural production, and also in the service sector. All these facilities are inadequate.
- **High rate of growth of population :** As per projection, India's population (as in 2023) of approximately 1.48 billion people consists of more than one-sixth of the world's population. Demographers expect India's population to surpass the population of China, currently the most populous country in the world, by 2030. At that time, India is expected to have a population of more than 1.53 billion while China's population is forecast to be at its peak of 1.46 billion (and will begin to drop in subsequent years). A high growth rate of the population means additional pressure on the available resources and low per capita income.
- **High rate of illiteracy:** Based on NSO (National Statistical Office) survey data, as in 2023, the literatcy rate of India stands at 77.7 percent. Of which, male literacy rate is 84.7 percent, while female literacy rate is 70.3 percent. This is higher compared to the Census data 2011 when the overall literacy rate of India was 74 percent. The male literacy rate was 82 percent and female literacy rate was 65.5 percent.
- **High infant mortality rate :** India has the highest infant mortality rate in the world, a nationwide survey reveals. India still ranks much below in United Nations Human Development report.

According to Human Development Report 2021, India's position is 132 among 191 countries in the world. According to World Bank data, India has reduced IMR from as high as 162 in 1960 to 26 in 2021. But it is still higher compared to other South Asian countries like Bangladesh (22.9), Nepal (22.8), Bhutan (22.45), China (5.05) and SriLanka (5.77). This shows that out country has to provide more focus on improving the nutrition and sanitation conditions.

1.4.2 Emerging Issues facing the Indian Economy

As India prepares herself for becoming an economic superpower and a developed nation by the year 2020, it must expedite socio-economic reforms and take steps for overcoming institutional and infrastructure bottlenecks in the system. Steps should be taken for improving the pace of development. The emerging issues that the Indian economy faces are:

- **Inflation :** Fuelled by rising wages, property prices and food prices, inflation in India is an increasing problem. Between the fiscal year 2004-05 and 2007-2008, India had experienced an average growth rate of more than 9 percent, but the global economic crisis caused such adverse external shocks in the economy that a few sectors experienced a slump. Inflation in India in 2009 stood at 11.49 percent. A decade later, which experienced certain ups and downs in the growth rate of the economy, the rate of inflation has come down to around 3.41 percent in 2018-19. However, in 2022, the annual rate of inflation in India stood at 6.7 percent, which was 1.57 percent higher than the previous year.
- **Poor educational standards :** Literacy is a key for socio-economic progress and the Indian literacy rate has increased to nearly 78 percent (NSO estimate) as in 2023 from 12 percent at the end of British rule in 1947. Although this was a greater

than six fold improvement, the level is well below the world average literacy rate of 86 percent There is a wide gender disparity in the literacy rate in India: the adult literacy rate (15+) for male is 78.8 percent against 59.3 percent of females in 2011. In 2023, this disparity has slightly improved, as the current male literacy rate of 84.7 percent, while the female literacy rate of 70.3 percent. Thus, the gap between the two has reduced compared to 2011. The low female literacy rate has had a dramatically negative impact on family planning and population stabilization efforts in India. It is worse in rural areas and amongst women. Over 50 percent of rural Indian women are illiterate.

- **Poor Infrastructure :** Many areas of India are serviced with poor transport links and under developed communication channels. Lack of energy supplies have also led to power shortages in certain areas. Many Indians lack basic amenities like access to running water. These problems are likely to exacerbate with both a growing population and growing economy.
- **Balance of Payments deterioration :** Although India has built up large amounts of foreign currency reserves the current account deficit has deteriorated in recent months. This deterioration is a result of the overheating of the economy. Aggregate Supply cannot meet Aggregate demand so consumers are consuming imports.
- **Inequality has risen rather than declining :** It is hoped that economic growth would help drag the Indian poor above the poverty line. However so far economic growth has been highly uneven benefiting the skilled and wealthy disproportionately. Many of India's rural poor are yet to receive any tangible benefit from the India's economic growth. Forbes report suggest that evern after much efforts, nearly 31 million homes do not have electricity. Significant portion of the the population still live on below the poverty line. Furthermore with the spread of television, internet and mobile, Indian villages the poor are increasingly aware of

the disparity between rich and poor.

- **Large Budget Deficit :** India has one of the largest budget deficits in the developing world. Thus, it allows little scope for increasing investment in public services like health and education. However, during 2018-19, the fiscal deficit has come down to 3.39 percent. But after the pandemic fiscal deficit again began to rise. In 2021-22 it was 6.7 percent. In 2023-24 it is proposed to be 5.9 percent.
- **Environmental costs of growth :** The high economic growth has led to a burgeoning middle class who have benefited in terms of being able to buy more cars and consume more. However this has led to increased problems of pollution and congestion. This issue is magnified by the excessive crowding faced in many Indian cities. Some economists are of the opinion that India needs to try and control its growing population level to provide a more stable economic and social environment.
- **Barriers to entry :** The Indian economy is still highly regulated with costs and restrictions faced by businessmen wishing to enter certain markets. This continues to limit entrepreneurship and their removal is important to continue the flow of inward investment. Procedures should be simplified and entry barriers for business activities should be relaxed.
- **Unemployment :** Unemployment has remained a problem despite the fast growth of the economy. There is an increase in the number of people entering the Indian labour market, particularly young women. It may be difficult to provide sufficient jobs unless investment continues in manufacturing and the service sector.
- **Skills shortage :** Although the Indian economy has relatively good levels of education, there still exist severe shortages of skilled manpower in certain areas such as IT. There is also a growing gap between the rich and the poor in different areas of the country. There is need for a concerted effort to increase both academic

and vocational skills to a broader section of the population

- **Fiscal reforms :** One of the challenges in fiscal reform will be reconciling the need for fiscal consolidation with appropriate tax reform. Indirect taxes not only affect efficiency of resource allocation but also the investment climate.
- **Foreign Direct Investment (FDI) :** There is a need to attract higher foreign direct investment to the country. Such investment triggers technology spillovers, assists human capital formation, contributes to international trade integration and particularly exports, helps create a more competitive business environment, enhances enterprise development, increases total factor productivity and, more generally, improves the efficiency of resource use.



CHECK YOUR PROGRESS

Q 7: State whether True (T) or False (F)

(a) India has one of the largest budget deficits in the developing world. (T/F)

(b) India's population is approximately one-sixth of the world's population. (T/F)

Q 8: 'Inflation is one of the important emerging issues in India'. Do you agree with the statement? Justify your point. (Answer in about 60 words)

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1.5 TREND IN NATIONAL INCOME : GROWTH AND ITS COMPOSITION

1.5.1 Trend of Growth in National Income

To have a more comprehensive idea, the study of the trend in national income covers the last 65 years of planning. The structural transformation that has occurred in the Indian economy over the decades is a consequence of the development process witnessed since the beginning of planning in 1951. These changes may be reflected in the growth rate and in the changing sectoral composition of the GDP. Some of the significant features of the long term trends in real GDP have been shown in Table 1.1.

Table 1.1 : Average Annual Growth Rate in GDP

	Period Year	Growth rate (percent)
First Plan	1951-56	3.6
Second Plan	1956-61	4.3
Third Plan	1961-66	2.8
Annual Plans	1966-69	3.8
Fourth Plan	1969-74	3.3
Fifth Plan	1974-79	4.8
Annual Plans	1979-80	-6.0
Sixth Plan	1980-85	5.7
Seventh Plan	1985-90	6.0
Annual Plans	1990-92	3.0
Eight Plan	1992-97	6.8
Ninth Plan	1997-02	5.4
Tenth Plan	2002-07	7.6
Eleventh Plan	2007-12	8.0
Twelfth Plan	2012-17	8.0
Without Plan	2017-22*	4.07

Source: MOSPI Website, * www.macrotrends.net

In the eighties, GDP has recorded a growth rate of 5.5 percent with the average rate of growth at 5.8 percent which was slightly higher than the targeted rate of growth. But during this period the annual growth rate was very unstable. This high rate couldn't sustain for the crisis revealed in 1991-92, when the annual GDP growth rate declined to a low of 0.8 percent.

When the 2002 to 2012 period was compared with the last decade of the twentieth century (1992 through 2002), it reveals some notable features. Against the recorded average rate of growth of just over 6 percent in the last decade of twentieth century, it was an encouraging 7.8 percent in the first decade of planning of the twenty first century.

However, due to Covid-19 and other global and domestic situations, India's GDP growth rate has witnessed high fluctuations in the recent years. For example, in 2019, India GDPgrowth rate for was 3.87 percent, which was 2.58 percent less than 2018. Similarly, India GDP growth rate for 2020 was -5.83 percent, a 9.7 percent decline from 2019. The Covid-19 pandemic hard hit all the economies of the world, causing decline in the GDP growth rates in the years 2020 and also the subsequent years. India's economy however recorded a GDP growth rate of 9.05 percent in 2021 which was 14.88 percent highet than 2020. However, in 2022, India's GDP growth rate stood at 7.00 percent, a 2.05 percent decline over the preceding year.

1.5.2 Composition of National Income

Composition of national income shows break-down of economic activity into different sectors and their contribution. As an economy becomes more developed, the contribution of industry to the GDP increases with agriculture registering for a relatively lower share. The Indian economy was not an exception to it and experienced the same as a result of the initiatives taken by the government for

development. Following broad trends in the changing composition of the domestic production are shown in Table 1.2.

From the table, it can be seen that :

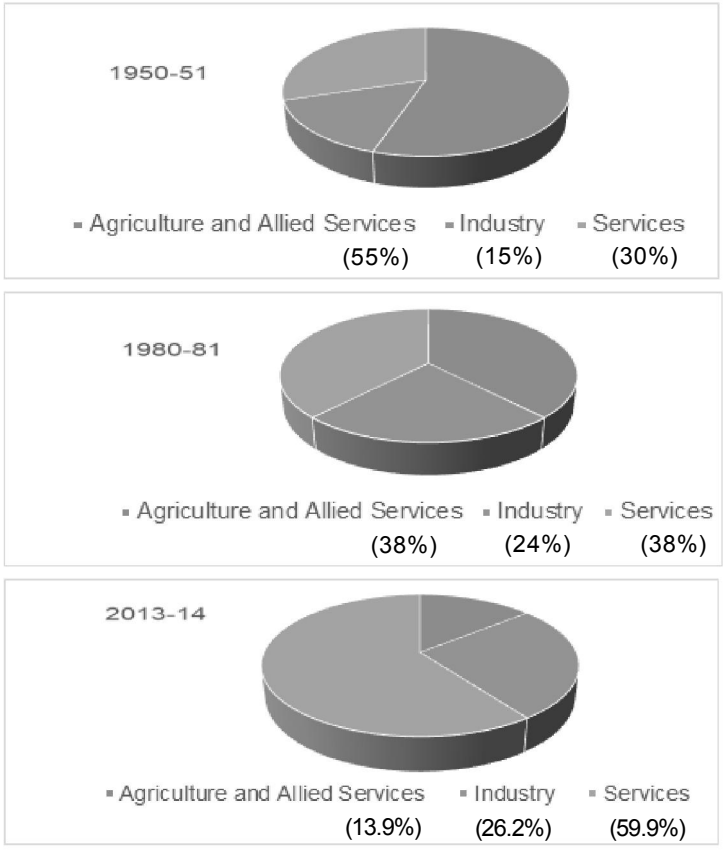
- The share of the primary sector which includes agriculture, forestry and fishery has gone down from 57.7 percent in GDP in 1950-51 to 18 percent in 2005- 06.
- The share of fishing in GDP had remained stable at about 1 percent throughout the last five decades.
- It is really shocking that the share of forestry in GDP has shown a continuous decline from 6.1 percent in 1950-51 to barely 0.7 percent in 2005-06.
- As a whole, the share of secondary sector has increased from 1.48 percent of GDP in 1950-51 to 26.2 percent in 2005-06. In this steady growth, the manufacturing sector including both registered & unregistered sectors have played a major role.
- Again, the share of tertiary sector which includes trade, transport, storage, communications, banking, insurance, real estate & community and personal services improved from 28.0 percent in 1950-51 to about 54 percent in 2005-06. It is worth mentioning that the tertiary sector comprises three components viz., transport, communication and trade, and finance and real estate which includes banking and insurance as well as community and personal services like education, health & family welfare.

Table 1.2 : Share of Gross Domestic Product by Industry of Origin (at 1993-94 series) in percentage

Sector/Year	1950-51	1980-81	2005-06
I. Agriculture etc.	57.2	39.7	19.7
1. Agriculture	50.2	35.8	18.0
2. Forestry	6.1	3.0	0.7
3. Fishing	0.9	1.0	0.9
II. Mining, Manufacturing etc.	14.8	23.7	26.2
1. Mining and quarrying	1.5	2.1	2.1
2. Manufacturing	8.9	13.8	15.1
a. Registered	4.4	8.1	10.3
b. Unregistered	4.5	5.8	4.8
3. Electricity, gas & water supply	0.3	1.7	2.2
4. Construction	4.1	6.1	6.8
III. Transport, Communication & Trade etc.	11.9	18.4	26.1
IV. Finance & Real Estate	6.7	6.5	13.8
V. Community and Personal Services	9.4	11.7	14.2
A. Commodity Sector (I+II)	72.0	63.4	45.9
B. Service Sector (III+IV+V)	28.0	36.6	54.1
Total	100.0	100.0	100.0

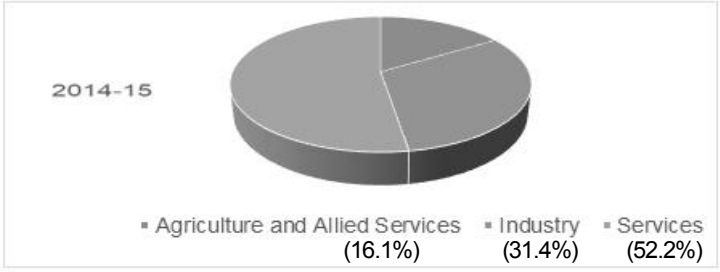
The structural change in the composition of national income by industrial origin is the consequence of the process of economic growth initiated during different plans. As industrialization spreads, it brings about an improvement in the share of industry and services. Indian economy is passing through this process of transition from an agrarian economy to an industrialized one. Since the growth process involved a rapid expansion of manufacturing in the organized sector, the share of the manufacturing sector was bound to increase. However, agriculture did not indicate a fast rate of growth. The share of GDP by industry of origin have also been shown in Figures 1.1 and 1.2 respectively.

Figure 1.1: Share of GDP by Industry of Origin (1999 - 2000 Series)



In Figure 1.1, the shares of GDP by industry of origin has been shown in 1999-2000 series. Similarly, in Figure 1.2, the share of GDP by industry of origin has been shown for the year 2014-15 based on recent data series 2011-12.

Figure 1.2: Share of GDP by Industry of Origin (2011-12 Series)



Thus, it can be seen that in 2014-15, the share of agriculture in India's GDP has come down of 16.1 percent while shares of industry and services have gone up to 31.4 and 52.2 percent respectively.



ACTIVITY 1.1

Study the share of GDP by industry of origin in India in the recent years like 2016-17 and 2019- 20 and 2022-23 and make a comparative analysis on the contribution of these sectors to GDP.

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The phenomenal expansion of services world-wide has led to the service sector being regarded as an engine of the growth and even as a necessary concomitant of economic growth. Development economists suggest that development is a three stage process. The dominance of the services sector in the growth process is usually associated with the third stage of growth. The development of service sector in India which is 54.1 percent of GDP in 2005-06 in the growth process is associated with the third stage of growth. Actually there is a sudden jump of the Indian economy to pass on to the stage of a post industrialized 'service sector' economy without completing the phase of industrialization. But this gap has to be removed by strengthening the manufacturing sector. This is possible with the progress of industrialization. At the same time, measures should be taken for accelerating the growth of the agricultural sector. This happens because of the inevitable link between agricultural development and industrial growth. It is only then the process of transition of the Indian economy from a developing to developed economy will be accomplished.

Trends of the share of public sector to GDP: The share of Public sector in GDP was 7.6 percent in 1950-51 which rose to 14.9 percent in 1970-71 to 23.0 percent in 2005-06. This has been shown in Table 1.3.

The gradual increase in the share of the public sector has been due to the expansion of the economy of the state-enlarging administrative services as well as the increasing productive activities in public enterprises. But after economic reforms were initiated in 1991, there was restriction on the role of the public sector. In 2011-12, the share of the public sector in GDP (at current prices) has decreased to 20.5 percent. (Source: www.data.gov.in).

Table 1.3: Share of Public Sector in Gross Domestic Product at Current Prices (In percentage)

Sector/Year	1970-71	1993-94	2005-06
Share of Public Sector in GDP	14.9	25.9	23.0
(i) Government administration	6.5	8.7	9.5
(ii) Departmental enterprises	4.1	3.7	2.7
(iii) Non-departmental enterprises	4.4	13.5	11.8

Source: Datt and Sundharam, *Indian Economy,* 2009

Share of organized and unorganized sector in NDP : Another feature of economic development is the shift in the composition of NDP from unorganized to organized sector. In India, as has been shown in Table 1.4, the share of organized sector has risen from 30 percent in 1980- 81 to 42 percent in 2004-05. Consequently, the share of the unorganized sector has declined from 70 percent to 58 percent.

Table 1.4: Percentage share in Net Domestic Product by Organised and Unorganised Sectors

Year/Sector	1980-81		2004-05		2007-08	
	Organised	Unorganised	Organised	Unorganised	Organised	Unorganised
1. Agriculture, Forestry & Fishing	4.8	95.2	5.6	94.4	8.8	91.2
2. Mining & manu-facturing etc.	56.8	43.2	62.9	37.1	70.2	29.8
3. Services	39.9	60.1	61.9	38.1	46.0	54.0
4. Total	30.0	70.0	42.0	58.0	42.9	57.1

Source: Datt and Sundharam, *Indian Economy,* 2009 & 2016

From the composition of different sectors it has been found that the share of the organised sector in mining, manufacturing etc. has improved from 56.8 percent in 1980-81 to 62.9 percent in 2004-05 and then to 70.2 percent. Besides, the overall growth in services in the organised sector has also shown progress during the last three decades from 40 percent in 1980-81 to 61.9 percent in 2004-05. But in 2007-08, it came down to 46.0 percent. On the other hand, the contribution of the unorganized sector on overall declined from 70.0 percent in 1980-81 to 57.1 percent in 2007-08.

The trend of contributions of different sectors in terms of Gross Value Added in the recent times has been shown in Table 1.5.

Table 1.5 indicates the contributions made by different sectors in the economy towards formation of the gross value added (GVA) of the economy. The figures are at constant prices of 2011-12. From the table, it can be seen that during the years 2019-20 and 2020-21

Table 1.5: Components of Gross Value Added at Basic Prices
GVA at Basic Prices (Base Year: 2011-12) Constant Prices

(Amount in Rs Crores)

Items/Year	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Agriculture, Forestry and Fishing	**1726004**	**1840023**	**1878598**	**1994326**	**2076327**	**2149122**	**2234269**
Industry	**2650508**	**2811690**	**2949954**	**2877638**	**2903100**	**3208998**	**3286185**
Mining & Quarrying	349248	329612	326815	317134	289905	310415	324708
Manufacturing	2054764	2209428	2328992	2259706	2325438	2582473	2617059
Electricity, Gas, Water Supply & Other Utility Services	246496	272650	294147	300798	287757	316110	344418
Services	**6951772**	**7382458**	**7905246**	**8364137**	**7702055**	**8439904**	**9244386**
Construction	916445	964306	1026789	1043429	983619	1129368	1242354
Trade, Hotels, Transport, Communication and Services Related to Broadcasting	2146379	2368419	2538757	2690060	2159495	2456447	2800112
Financial, Real Estate & Professional Services	2492967	2537190	2714222	2898243	2958852	3098827	3320305
Public Administration, Defence and Other Services	1395982	1512542	1625477	1732404	1600090	1755263	1881615
GVA at Basic Prices	**11328285**	**12034171**	**12733798**	**13236100**	**12681482**	**13798025**	**14764840**

Notes: 1. Data for 2019-20 are Third Revised Estimates, for 2020-21 are Second Revised Estimates and for 2021-22 are First Revised Estimates.
2. Data for 2022-23 are Provisional Estimates.

Source: National Statistical Office (NSO)

there were decline in most of the activites (though not all), which was basically owing to Covid-19 pandemic. Another notable thing is that the contribution of the service sector is the highest among all. Please note that in the Table if you add up the major sectors, viz., agriculture, forestry & fishing, industry and services you will get the total GVA mentioned in the last row. These three major sectors and the GVA has been highlighted. Rest of the sectors are actually the sub-sectors of the economy. For example, mining & quarrying, manufacturing etc. are sub-sectors of industry. Similarly, the sub-sectors of the service sector has been listed below it.



CHECK YOUR PROGRESS

Q 9: Discuss the trend of the shares of the secondary and the tertiary sectors in GDP of the economy. (Answer in about 50 words) .....

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1.5 LET US SUM UP

- India had an independent economy before the advent of the British rule.
- V.K.R.V. Rao's estimates of the national and per capita incomes during the colonial period were considered very significant.
- The population of British India was first collected through a census in 1881.
- Various systems of land settlement were introduced by the colonial government.
- The traditional handicrafts industries were ruined under the British rule. India could not develop a sound industrial base under the colonial rule.

- There was always an acute shortage of all weather roads to reach out to the rural areas during the rainy season.
- There are wide disparities in the level of incomes and about one third of the Indian population live below the poverty line.
- Many areas of India are serviced with poor transport links and under developed communication channels.
- So far, economic growth in India has been highly uneven.
- There is an increase in the number of people entering the Indian labour market.
- The agricultural sector needs increased investment in irrigation and water supplies.
- One of the challenges in fiscal reform will be reconciling the need for fiscal consolidation with appropriate tax reform.
- Farmers and enterprises should have access to finance at competitive rates.
- The trend of national income growth is not so satisfactory. In certain periods it was comparatively high but it could not be sustained in the subsequent periods.
- There is also change in the structural composition of national income. The contribution of agriculture is rapidly decreasing and the share of industrial sector has been gradually increasing. Tremendous progress has been shown by the service sector.



1.6 FURTHER READING

1) Agrawal, A. N. (2019). *Indian Economy: Developmental Problems and Policies.* New Delhi: New Age International Publishers.
2) Datt, G and Mahajan, A. (2016). *Datt & Sundharam's Indian Economy.* New Delhi: S. Chand & Co.
3) Kapila, U. (2003). *Indian Economy since Independence.* New Delhi: Academic Foundation.
4) Misra, S.K. & Puri, V.K. (2018). *Indian Economy.* New Delhi: Himalya Publishing House.

1.7 ANSWERS TO CHECK YOUR PROGRESS

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

Ans to Q No 2: TISCO was formed in 1907. Full form of the term is Tata Iron and Steel Company.

Ans to Q No 3: The primary motive of the colonial government behind its policy to de-industrialise the India economy was two-fold. First, it sought to reduce India to the status of a mere exporter of important raw materials, such that the upcoming modern industries in Britain are benefited. Secondly, it wanted to turn India into a market for the finished products of those industries in Britain.

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

Ans to Q No 5: The status of the social development indicators in India during the British period was not quite encouraging. Literacy rate was less than 16 per cent; of this, the female literacy rate was only about 7 per cent. Water and air-borne diseases were rampant and caused death to many. Infant mortality rate was quite alarming —about 218 per thousand. Life expectancy was also very low – only 32 years.

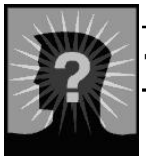
Ans to Q No 6: Introduction of the railways in India brought certain social benefits like easy long distance travel, but it caused huge economic loss to the country as well. First, railways fostered commercialisation of Indian agriculture. This adversely affected the comparative self-sufficiency of the village economies. Secondly, the volume of India's export rose significantly, but its benefits rarely accrued to the Indian people.

Ans to Q No 7: (a) True (b) True

Ans to Q No 8: Inflation is one of the emerging issues in India. With economic growth of 9.2 percent per annum, inflationary pressures are likely to increase, especially with supply side constraints such as infrastructure. Between the fiscal year 2004-05 and 2007-2008, India had experienced an average growth rate of more than 9 percent, but the global economic

crisis caused such adverse external shocks in the economy that a few sectors experienced a slump. Inflation in India in 2009 stood at 11.49 percent.

Ans to Q No 9: On overall, the share of secondary sector has increased from 1.48 percent of GDP in 1950-51 to 31.4 percent in 2014-15. The manufacturing sector includes both registered & unregistered sectors. Similarly, the share of tertiary sector which includes trade, transport, storage, communications, banking, insurance, real estate & community and personal services improved from 28.0 percent in 1950-51 to about 54 percent in 2005-06.



1.8 MODEL QUESTIONS

Short Questions (Answer each question in about 150 words)

Q 1: Write a short note on the agricultural sector of India in the pre-independence period.

Q 2: Briefly discuss the state of the industrial sector of India in the pre-independence Period.

Q 3: What was the state of foreign trade in India during the pre-independence period? Explain briefly.

Q 4: What were the demographic conditions and the pattern of occupations structure of India during the pre-independence period? Put forward a brief account.

Q 5: Briefly discuss the structural change in the composition of national income by industrial origin.

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

Q 1: Write an essay stating the scenario of the Indian economy in the pre-independence period.

Q 2: Explain the emerging issues facing the Indian economy.

Q 3: Discuss the features of India as a developing Economy.

Q 4: Discuss the Trend of growth and composition of National Income in India.

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UNIT 2 : POPULATION & HUMAN RESOURCES

UNIT STRUCTURE

2.1 Learning Objectives

2.2 Introduction

2.3 Theory of Demographic Transition: Brief Concept

2.4 Size and Growth of Population in India

2.5 Characteristics of the Indian Population

2.6 Indicators of Human Development

2.7 Let us Sum Up

2.8 Further Reading

2.9 Answers to Check Your Progress

2.10 Model Questions

2.1 LEARNING OBJECTIVES

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

- describe the concept of human resource,
- derive an idea about the different stages of demographic transition,
- discuss the growth and various characteristics of the Indian population, and
- explain the concept of human development and its various indicators.

2.2 INTRODUCTION

We all know that man is the most intelligent creature on the earth. By using his intelligence, man can innovate new skills and produce many things. Thus, on account of his contribution to the production process, human may be considered a valuable resource just like any other factor of production.

Human resource may be considered as capital asset which yields a stream of economic benefits over their working life. An improvement in mental and physical capability enhances the quality of human capital. As the human being contributes to growth and development by providing labour as well as innovative and entrepreneurial skill, it is called human resource.

Population can be considered a human resource as it contributes to the production process. But population size should be ***optimum***, it shouldn't be either too big or too small. A very small size of population may not be able to supply labour force & fails to generate effective demand. Similarly, a huge size of population is a burden on the economy. Therefore, it is important to maintain the optimum size of population for the balanced relationship between population size and economic development. But this relationship is a two way relationship. One important theory to explain how development affects population is the Theory of Demographic Transition which states that population growth can be studied in three stages. This unit begins with a brief outline of the Theory of Demographic Transition. Then it discusses the size, growth and characteristics of the Indian population. Then, finally we shall discuss the concept of human development and the indicators of human devlopment viz., the Human Development Index (HDI).



Optimum size of population means that population size, which the ecology of the country can sustain. But it is not the maximum number of population.

2.3 THE THEORY OF DEMOGRAPHIC TRANSITION

The theory of demographic transition postulates that birth rate and death rate differ in different stages of development. Population growth can be studied in three stages. Hence the sequence of birth and death rate are typically associated with economic development.

First stage: In the first stage of population growth both birth rate and death rate are very high. This keeps the actual growth rate of population low. According to this theory, death rate is high in the first stage because of several interrelated reasons. Developing countries are normally agrarian in nature with low productivity. People suffer from malnutrition, improper sanitation measures and absence of effective medical aid. In this stage, birth rate is also high because of some deep-rooted social belief, religious belief, early marriage, ignorance & absence of knowledge about family planning measures. Thus, the first stage is characterised by a high death and high birth rate. But such high birth rate shows the growth potentials only. The actual growth rate is very low since high birth rate is balanced by high death rate and vice versa. As a consequence, the growth rate of population is slow.

Second stage: In the second stage of demographic transition, the death rate starts falling rapidly, but the birth rate remains almost stable. This leads to the widening of difference between the two, resulting in a very fast rise in the growth of population. Rise in income level enables the people to improve their diet. Economic development also brings about all-round improvement including the progress of health and other facilities. All these direct and indirect effects of development tend to reduce the death rate. Thus, in this stage the actual rate of population growth is high because of falling death rate even if birth rate remains stable or there is slight fall in it. In fact, in the second stage, the birth rate may actually increase because the number of persons in their reproductive age increases with a rise in life expectancy. Therefore, we can say that in the second stage, the growth rate of population becomes very rapid. India is in this phase of population explosion. But such rapid population growth has very serious consequences for the country's economic growth.

Third stage: The continuing development process further changes the basic characteristics of a developing country. Development brings about industrialization and urbanisation. As a result, people gradually develop a tendency to move from rural to urban areas. To cope up with the trend of urbanisation & rising cost of living, women have to go out for work. Under such circumstance, it becomes difficult to maintain large families and children become a problem instead of being a matter of pride.

Further, because of the expansion of education, people change their attitudes; they give up traditional beliefs & old values. Gradually, a stage comes to life when people realise the advantage of small family. As a result, birth rate falls gradually. On the other hand death rate is already very low which however can't be zero; because man can not escape death. In this way, the gap between birth rate and death rate narrows down and the growth of population becomes very slow. Thus, in the third stage, the birth rate and death rate become stable at low level, resulting in a very slow rise in population. The three stages explained above reveal the transformation of a primitive high birth & high death rate economy into a low birth & low death rate economy.



CHECK YOUR PROGRESS

Q 1: Why is the human being considered a capital asset? (Answer in about 30 words)

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Q 2: Outline the basic features of the three stages of demographic transition. (Answer in about 40 words)

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2.4 SIZE AND GROWTH OF POPULATION IN INDIA

After the above discussion of the Theory of Demographic Transition, we can definitely say that India is out of the first stage but it has not entered the third stage either. Therefore, it can be said that India is passing through the second stage. But there are some differences with the theoretical formulation of this stage and the ground realities in India. In the beginning of 20th century the size of population in India was 236 million and this has grown to the size of 1,027 million according to the census of 2001. A study of the growth rate of India's population falls into four phases:

1891-1921 : stagnant population

1921-1951 : Steady growth

1951-1981 : Rapid high growth

1981-2001 : high growth with definite sign of slowing down

Compound Annual Growth Rate (CAGR) *:* If we study the trend of India's population growth, these four phases will be seen clearly. From Table 2.1 it has been found that during 1981-1921, compound annual growth

rate (CAGR) of population was very low. But from 1951, population grew at almost 2.1 percent & the high growth rate continued up to 1981. Population was still growing, but there was a slight fall in the compound growth rate. Since the last census in 2001, population has grown at the rate of merely 1.7 percent per annum.

Table 2.1: Compound annual growth rate of population in India

Time period	CAGR of population
1891-1921	0.19
1921-1951	1.22
1951-1981	2.15
1981-1991	2.11
1991-2001	1.93
2001-2011	1.64

Source: *Census of India, 2011*

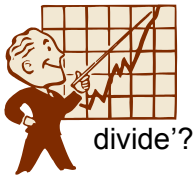
Prior to 1921, India was at the first stage of demographic transition. The year '1921' is also called the year of great divide. This is so because before 1921, the rise of population was very slow and irregular, but after 1921 there was rapid and uninterrupted increase in it. Thus, from 1921 onwards, India has entered into the second stage of demographic transition in which the high growth potential of population was realised as a high actual growth of population. In view of the trend, it has been realised that very soon India will enter the third stage of demographic transition. Please note that no Census was done in 2021, basically due to Covid-19 pandemic.

Causes of high birth rate in India: After knowing that India has been experiencing population explosion, naturally a question arises in our mind regarding the causes of such high birth rate. High birth rate is a special feature of the under developed and developing countries. Several factors are responsible for this high birth rate. Some of the important causes are mentioned below–

- **Poverty :** Poverty, associated with illiteracy and ignorance makes people believe that a large number of children can generate more

income. Besides, there is an intensification of reproductive capacity in chronically starved people which develops through a complex process, involving psychological factors.

- **Religious belief and social attitude :** Especially among the Hindus, it is a common belief that without a male child, it is not possible to get deliverance from the cycle of birth and rebirth. Marriage is considered as an universal custom that has to be followed at an early age. In general, unmarried people don't enjoy respect in the society. All these factors contribute to increasing the reproductive rate.
- **Illiteracy & ignorance about family control measure :** India is yet to obtain a high level of literacy. Particularly women folks are not advanced in comparison to the male counterpart. Many of them don't know the merits of family control and the measures associated with it. Govt. of India has adopted several policy measures in this respect but the results are not so satisfactory.



CHECK YOUR PROGRESS

Q 3: Why is the year 1921 called 'the year of great divide'? (Answer in about 30 words)

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Q 4: There are three stages in the theory of demographic transition. In which stage is India at present?

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2.5 CHARACTERISTICS OF THE INDIAN POPULATION

Having acquired some knowledge about the size and trend of population growth, it would be useful to know some of the characteristics of Indian

population. These have been discussed below:

- **Sex ratio:** Sex ratio shows the number of females per thousand males. It can be calculated by dividing the total number of females by total number of males and multiplying the resultant by 1000.

  As per 2011 census, there are 940 females for per thousand males. This is marginally higher compared to the figure of 2001 census which was 933. Table 2.2 shows the overall trend of sex ratio in the country since 1901.

Table 2.2: Sex ratio in India

Year	Females per thousand males	Year	Females per thousand males
1901	972	1961	941
1911	964	1971	930
1921	955	1981	934
1931	950	1991	927
1941	945	2001	933
1951	946	2011	940

***Source**: Indian Economy, Datt and Sundharam, 2016*.

The above table shows that the sex ratio has been declining continuously barring the marginal improvement at a few points. Also note that among different states, Kerala alone shows a higher proportion of females, 1084 per thousand males in 2011. The states which had lower sex ratio than the national average are Assam, West Bengal, Bihar, Rajasthan, U.P, Punjab & Harayana. There is no universally acceptable explanation of declining sex ratio in India. This is because female foetuses are biologically stronger than the male foetuses and there is every possibility that women has longer life expectancy than male. However, there are few a reasons which have been put forward to explain this contradiction. *First*, a girl child is often ignored in the society. Some societies practise infanticide and foeticide. *Secondly,* because of ignorance, Indian women give birth to babies at a very short interval. This leads to death of many women. *Thirdly,* it is doubtful whether women were counted correctly. Because whenever any

outsider comes, they remain under the veil to maintain social tradition. So, some women may refuse to appear before an enumerator with the resultant non recording of such women.

- **Age Composition :** Age composition of population gives an idea about the proportionate number of persons in successive age categories in a given population. A population with persistently high fertility, for instance, has a large proportion of children and a small proportion of aged persons. But against this, a population with low fertility for a long time, has a smaller proportion of children and a larger proportion of aged persons.

  Information on the age composition is important for several reasons. The study of age composition is helpful in determining the proportion of labour force in the total population, unproductive consumer and dependent population. The census figure of 2001 shows that the proportion of child population in the age group 0-14 was 35.6 percent. The figure shows a high proportion of unproductive consumers in the population size. But the proportion of unproductive consumers was even higher in the previous four decades. The percentage of workforce which considers the age group 15-60 is 58.2. But the percentage of population in the age group of 60 and above is as low as 6 percent. This small percentage in this age group is owing to the low life expectancy of the Indian population.

- **The Density of Population :** The concept of density of population gives an idea about the average number of people living in a given km. area. It indicates the ratio of population to land. The density of population has been rising since 1921. The increase has been rapid from 1951 onward. The density of population was 77 persons living per square km. in 1901. This very small figure jumped to 267 per square km. of area in 1991 & further shot up to 324 per square km. in 2001 and then to 382 in 2011.

  But there is variation in density of population among different states & within states. There are differences in density in different regions also. As per Census 2011 figures, the density of population is

the highest in the union territory of Delhi (11297). Among the states, the density of population is the highest in West Bengal (1102) and the lowest in Himachal Pradesh (123). There are many reasons for this; but the main reasons behind such variation in density of population are due to variation in climate, rainfall, irrigation facilities etc. Another reason may be disparity in industrial development.

- **Rural Urban Ratio :** Before discussing rural urban ratio in India, it would be better if we have a glimpse of the concept of 'urbanisation'. In a very simple way urbanisation can be described as the process of conversion of rural areas into urban areas. But the parameters used for describing urbanisation vary among different countries. At present an urban area has thus been defined in India as follows:
  - All places with a municipality, corporation, cantonment board or notified town area committee
  - All other places which satisfy the following criteria:
    - A minimum population of 5,000,
    - At least 75 percent of the male working population engaged in non agricultural activities, and
    - Density of population is at least 400 persons per sq. km.

    The main features of urbanisation in India are as follows:
  - The urban population has grown rapidly since 1961, with the decadal growth rate for 1961-71. at over 38 percent. During the period 1991-2001, the urban population has increased at the rate of 31 percent. As percentage of total population, the urban population was about 11 percent in 1901, about 18 percent in 1961, about 26 percent in 1991, 28 percent in 2001 and 31.2 in 2011.
  - There has been a larger rise in the population of big towns. In comparison to class I and Class II towns, the percentage of urban population in smaller towns (class II) has in fact declined.
  - There is variation in the level of urbanisation among different states.

But in spite of high rate of urbanisation, a majority of population lives in rural areas. The percentage of total population living in rural area is 72.2 in 2001, thus, leaving the urban figure to be 27.8. In the following table 2.3, the

percentage of rural and urban population in India over a period of hundred years has been shown.

Table 2.3: Relative growth rate of rural and urban population

Year	Percentage of rural population	Percentage urban population	Year	Percentage rural population	Percentage urban population
1901	89.0	11.0	1961	82.0	18.0
1911	89.6	10.4	1971	80.1	19.9
1921	88.7	11.3	1981	76.7	23.3
1931	87.8	12.2	1991	74.3	25.7
1941	85.9	14.1	2001	72.2	27.8
1951	82.7	17.3	2011	68.8	31.2

Source: *Indian Economy, Datt and Sundharam, 2016.*

Over the time, the percentage of urbanisation has been increasing gradually. But the overall picture remains the same; thus, the Indian economy may be described as a rural economy as against western economies which are often designated as industrial or urban economies.

This trend depicts the structure of the Indian economy. With inadequate industrial infrastructure, there is little increase in the industrial development. The result is two fold: *first,* urbanisation as indicated by the urban population is no doubt, more than what it was before, but it is still very small in magnitude. *Secondly,* since agriculture continues to be the main occupation of the people, the absolute rural population is much bigger in size.

- **Occupational Distribution of population:** Occupational distribution of the working population of the country refers to the aggregate distribution of occupations in society, classified according to skill level, economic function, or social status. The occupational distribution of an economy depends on the importance given to different industries, level of technology, nature of labour market and on different social issues. The occupational structure is described and analysed by means of various classificatory schemes, which group similar occupations together according to specific criteria such as skill, employment status, or function. Such classifications are also used

as a basis for the empirical analysis of economic and social class. The working population of India according to 2001 Census report is 39.26 percent among the total population of the nation. In rural and urban areas the workforce participation are 41.97 and 32.23 percent, respectively.

Table 2.4 shows the different estimates of the occupational distribution of the work force of India over the years viz., 1961, 1993-94 and 1999- 2000:

- Over the period of time, there has been a trend of decline in the share of the agriculture and allied activities. On the other hand, the share per thousand populations has been increasing in manufacturing and repairing activities.

Table 2.4: Occupational Distribution of the Indian Work Force over the Years

Industry, Division / Group	1961		1993-94		1999-2000	
	No. of workers (in 1000)	Share (in 1000)	No. of workers (in 1000)	Share (in 1000)	No. of workers (in 1000)	Share (in 1000)
Agriculture, Forestry and Fishing	143,282	759	238,682	638	237,786	599
Mining & Quarrying	919	5	2,676	7	2,263	6
Manufacturing & Repairing Services	17,906	95	43,218	116	48,296	122
Electricity, Gas & Water	257	1	1,394	4	1,048	3
Construction	2,768	15	12,127	32	17,618	44
Trade, Hotels & Restaurants	8,171	43	28,459	76	37,728	94
Transport, Storage & Communication	3,262	17	10,757	29	14,757	37
Finance, Insurance, Real Estate & Business Services	542	3	3,653	10	4,924	12
Community, Social & Personal Services	11,571	62	32,866	88	33,200	83
TOTAL WORK FORCE	188,676	1000	373,832	1000	397,018	1000

- The construction sector has also shown an increasing trend in the work force participation. Similar trend has been recorded in work force participation in transportation, storage and communication, finance, insurance and real estate.
- Even when the share of the agricultural sector is declining over the period of time, but the sector still engages the largest number of workers. Thus, the Indian economy is still characterised as a primitive economy, primarily led by farmers, fishermen and agricultural labours.



CHECK YOUR PROGRESS

Q 5: What is the meaning of sex ratio? Trace the causes behind the imbalance in sex ratio in India. (Answer in about 50 words)

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Q 6: Briefly enumerate the age composition of the population of India. (Answer in about 40 words)

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2.6 INDICATORS OF HUMAN DEVELOPMENT

The concept of human development emphasises on positive freedom as a key element in any definition of a good society. It judges a society by policies, procedures, and structures by which the needs are met—whether they promote moral responsibility, rational choice and other features of full human development. Such a society can enable its citizen to aspire to achieve greatness, to develop virtues and loyalty, to become skilled and artistic, and also to attain wisdom. Such opportunities can build capability.

Human-centered development has the ultimate objective of enabling all people to enjoy long, healthy and creative lives. It weaves the development

process around people, rather than weaving people around the developmental process. Economic growth is also important but it is a way, not an end. In the long run, it is human growth that matters most, not economic growth.

Since 1990s, the United Nations Development Programme has been issuing the ***Human Development Report (HDR)*** with the Human Development Index as a comprehensive measure of human development. The basic tenet of the Human Development Report is that a long and healthy life along with the basic educational skills of reading and writing and being capable of maintaining a decent standard of living are the essential components of human development.



Mahbub-ul-Haq (1934-1998) was born in Jammu and Kashmir. He is credited to be the creator of the Human Development Report. He was an influential, world renowned Pakistani economist.

As a result, the HDI tried to measure human development through the following three indices:

- *A long and healthy life*, as measured by **life expectancy at birth**. Thus, it indicates the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life.
- *Knowledge*, as measured by the **adult literacy rate** (with two-third weight) and the **combined *gross enrolment ratio*** in primary, secondary and tertiary levels of education (with one-third weight), and
- *A decent standard of living*, as measured by Gross Domestic Product *(GDP)* **per capita in purchasing power parity (PPP) in terms of US dollars**.

Please note, in the recent HDRs, to calculate the education index, adult literary rate and combined gross enrolment ratios have been replaced by: 1) mean years of schooling, and 2) expects year of schooling respectively.



LET US KNOW

Gross enrolment ratio : The gross enrolment ratio (GER) or gross enrolment index (GEI) is a statistical measure used in the education sector by the UN in its Education Index. The GER gives a rough indication of the level of education from kindergarten to postgraduate education – known in the UK and some other countries (mostly in the Commonwealth of Nations) as primary, secondary, and/or tertiary – amongst the residents in a given jurisdiction.

In the UN, the GER is calculated by expressing the number of students enrolled in primary, secondary and tertiary levels of education, regardless of age, as a percentage of the population of official school age for the three levels.

Purchasing power parity (PPP): It is the rate of exchange that accounts for price difference across countries, allowing international comparisons of real output and incomes. In the calculation of PPP, the economy of the United States is used as a reference, so that country is set at 100.

Now, let us consider India's achievements in different indicators of the Human Development Index in the recent years. We have taken the HDI of 2007/08 and 2019.

Table 2.5: India's Position in the Indices (HDR, 2007/08)

1. Life expectancy at birth (in years)	63.7
2. Adult literacy rate (in percent)	61.0
3. Combined gross enrolment ratio (percent)	63.8
4. GDP per capita (PPP US$)	3,452

Please note that some changes have been made in the methodology of calculationg HDI from time to time. The latest HDR of 2019 reflects that India was placed in 129th position. However, as per 2021-22 reports, India

occupied 132th position in the UNDP HDI. India's position in the indices in the latest years of 2019 and 2021-22 has been shown in Table 2.6.

Table 2.6: India's Position in the Indices (HDR, 2019)

	2019	2021-22
1. Life expectancy at birth (in years)	69.4	67.2
2. Expected years of schooling	12.3	11.9
3. Means years of schooling	6.5	6.7
4. GNI per capita (PPP US$)	6,829	6590



ACTIVITY

Try to find out the ranks of India and its neighbouring countries in the Human Devlopment Reports (as many as possible) published by the UNDP in the recent years.

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CHECK YOUR PROGRESS

Q 7: What does the life expectancy at birth indicate? (Answer in about 40 words).

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Q 8: What is purchasing power parity? (Answer in about 30 words)

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2.7 LET US SUM UP

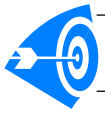
- To outline the scenario of population growth of India it is important to know some of the characteristics of the population.
- The first is sex ratio which shows the number of females per thousand males. As per 2011 census, there are 940 females per thousand males. No Census was conducted in 2021 due to outbreak of the Covid-19 pandemic.
- The second is age composition. The age composition in India shows the percentage of workforce is the age group 15-60 is 58.2 but at the same time a major portion is unproductive consumers.
- The third is density of population which shows the ratio of population to land. The fourth is rural urban ratio. The urban population has grown rapidly since 1961. But there is variation in the level of urbanisation among different states. In spite of high rate of urbanisation, a majority of population lives in rural area.
- The percentage of total population living in rural area is 72.2 in 2001. Occupational distribution shows the aggregate distribution of occupation in a society. The occupational structure is described and analysed by means of various classificatory schemes, which group similar occupations together according to specific criteria such as skill, employment status, or function.
- As the human being contributes to growth and development by providing labour as well as innovative and entrepreneurial skill, it is called human resource.
- India is experiencing very high rate of population growth. But it has been expected that the population size will soon become stable.
- Growth and development may contribute to the control of population size.
- The human development index (HDI) is a summary measure of human resource development. It measures the average achievements in a

country in three basic dimensions of human development viz. healthy life, knowledge and standard of living. These three qualitative measures are supported by quantitative parameters such as life expectancy at birth, literacy/education and per capita GDP respectively.



2.8 FURTHER READING

- Datt, R. and K.P.M. Sundharam (2009), *Indian Economy*, S. Chand & Co.
- Kapila, U: *Indian Economy since Independence*, Academic Foundation.
- Misra & Puri : *Indian Economy* (2009), Himalya Publishing House.
- Agrawal, A. N. (2005), *Indian Economy*, Wishwa Prakashan
- *Human Development Report* (2007/2008): UNDP.



2.9 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q 1: We all know that human is the most intelligent creature on the earth. By using its intelligence, it can innovate new skills and produce many things. Thus, on account of its contribution to the production process, human may be considered as resource just like any other factor of production.

Ans to Q 2: The basic features of the three stages of demographic transition are:

In the first stage: both the birth rate and death rate are very high. This keeps the actual growth rate of population low.

In the second stage: the death rate starts falling rapidly, but the birth rate remains almost stable. This leads to the widening of difference between the two, resulting in a very fast rise in growth of population.

In the third stage: the birth rate and death rate become stable at low level, resulting in a very slow rise in population.

Ans to Q 3: Prior to 1921, India was at the first stage of demographic transition. The year '1921' is also called the year of great divide. This is so because before 1921, the rise of population was very slow and irregular, but after 1921 there was rapid and uninterrupted increase in it.

Ans to Q 4: At present India is in the second stage and it is predicted that India will enter the third stage very soon.

Ans to Q 5: Sex ratio shows the number of females per thousand males. As per 2001 census, there are 933 females per thousand males. There is marginal increase over the figure of 1991 census which was 927.

There are several interrelated socio-economic and political causes behind the imbalance in sex ratio in India. But the frequently quoted cause are–

- First, a girl child is often ignored in the society. Some societies practise infanticide and foeticide,
- Secondly, the interval between two babies is very short. This leads to death of many women, and
- Thirdly, there may be problems in the methods of estimation of sex ratio.

Ans to Q 6: The age composition of India shows that-

- The working population in the age group 15-60 is 58.2. but against this a high percentage of population(35.6 percent) is unproductive.
- But the percentage of population in the age group 60 and above is as low as 6 percent because of low life expectancy.

Ans to Q 7: Life expectancy at birth indicates the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life.

Ans to Q 8: Purchasing power parity is the rate of exchange that accounts for price difference across countries, allowing international comparisons of real output and incomes. In the calculation of PPP, the economy of the United States is used as a reference, that country is set at 100.



2.10 MODEL QUESTIONS

Short Questions (Answer each question in about 150 words)

Q.1. Discuss the three stages of demographic transition.

Q.2. Write a short note on the construction of the Human Development Index.

Q.3. What do you mean by occupational distribution of population? Briefly discuss how the occupational distribution of population in India has changed over the period of time.

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

Q.1. What is human resource? Is there any relation between development and population size?

Q.2. Critically discuss the trends of population of India in the context of the theory of demographic transition.

Q.3. What are the different characteristics of population? Discuss in the context of Indian population.

Q.4. What is the meaning of human development? What are the different components of human development considered in the construction of the human development index?

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UNIT 3: INFRASTRUCTURE IN THE INDIAN ECONOMY

UNIT STRUCTURE

3.1 Learning Objectives

3.2 Introduction

3.3 Energy and Power Infrastructure

- 3.3.1 Coal
- 3.3.2 Oil and Natural Gas
- 3.3.3 Biomass and Charcoal
- 3.3.4 Wind, Nuclear and Solar Energy
- 3.3.5 Electricity

3.4 Transport System

- 3.4.1 Rail Transport
- 3.4.2 Road Transport
- 3.4.3 Air Transport
- 3.4.4 Water Transport

3.5 Communication System

- 3.5.1 Postal Service
- 3.5.2 Telecommunication
- 3.5.3 Radio and Television
- 3.5.4 Internet

3.6 Urban Infrastructure in India

3.7 Smart Cities Mission

3.8 Industrial Corridor

3.9 Let Us Sum Up

3.10 Further Reading

3.11 Answers to Check Your Progress

3.11 Model Questions

3.1 LEARNING OBJECTIVES

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

- acquire an in depth knowledge about the latest development of

infrastructure in the field like energy and power and transport and communication

- discuss development of urban infrastructure in India along with the government schemes for development is also added to it
- acquire knowledge of the concepts like Industrial corridors and smart cities mission
- describe the recent infrastructural development in the Indian economy.

3.2 INTRODUCTION

The development of an economy depends on mainly its social overhead capitals (SOCs) which we call as infrastructure. We also know that Infrastructure, be it social or economic, offers foundations for the smooth functioning of the economy and thereby increasing the pace of economic development. In India the main catalyst for the development is nothing but the Infrastructure sector. Realizing the great role of this sector as an agent to speed up India'sall round development, government initiating various policies for boosting up infrastructure in the country. Though, this sector is one of the largest receivers of Foreign Direct Investment inflows in India, at present the infrastructural sector of India is not much satisfactory to compete globally. For instance, in 2023, India ranked 38th out of 139 countries in World Bank's Logistics Performance Index (LPI) 2023. So the demand for good and world class infrastructure in India is very high. However the remarkable achievement has been made in the last four years in terms of growth of transport and communication and energy sector. The total national highways length increased from 92,851 kms in 2013-2014 to 122,434 kms in 2017- 2018 which has further increased to 145,240 km in 2022-23. Energy deficit in 2021-22 stands at 0.7 per cent, which has declined from 4.2 per cent in 2013-14. India's rank improved to 10 in 2022-23 from 137 in 2014 on World Bank's Ease of doing business. Similarly, number of airports has increased to 487 in 2023 from 102 in 2018.

The infrastructure of an economy plays a critical role in accelerating

its development and laying the groundwork for its potential for future growth. To reach India 2047's goal of a $40 trillion economy and be categorised as a developed economy, infrastructure development is essential. The focus now shifts from physical infrastructure to digital and social infrastructure in the immediate aftermath of COVID-19 and the digitalization of the world.

India's economic growth is anticipated to be boosted by the significant expenditures made in current infrastructure projects. Industrial growth is accelerated by rising demands for labour, goods, and capital investments in infrastructure. According to research from the Reserve Bank of India and the National Institute of Public Finance and Policy, the GDP increases by 2.5 to 3.5 rupees for every rupee spent on infrastructure. Trade gains from improved logistics and connectivity, and the general public benefits from improved vital infrastructure and an overall rise in per capita income. Thus, India can actually achieve its goal of being a developed country by 2047.

The recent Union Budget 2023-24 presents vision for Amrit kaal-blue print for an empowered and inclusive economy. Three pronged focus driven by four transformative opportunities constitute foundation of Amrit kaal.

- Capital investment outlay increased by 33 percent to Rs. 10 lakh crore
- Effective capital expenditure at 4.5 percent of GDP.
- Atmanirbhar clean plant program with outlay of Rs. 2200 crore to be launched to boost availability of quality planting material for high value horticultural crops.
- 157 new nursing colleges to be established.
- Outlay for PM Awas Yojana enhanced by 66 percent to over Rs. 79,000 crore.
- Highest ever capital outlay of Rs. 2.40 lakh crore provided for railways.
- Urban infrastructure development fund (UIDF) to be established through use of priority sector lending shortfall.
- 500 new 'waste to wealth' plants under Gobardhan scheme to be established at total investment of Rs 10,000 crore.
- 10,000 bio-input resource centres to be set-up, creating national-level distributed micro-fertilizer and pesticide manufacturing network.



LET US KNOW

What is Infrastructure?

Infrastructure refers to the basic physical systems that provide support to the structure of the economy. Infrastructure includes transportation facilities, telecommunications networks, and water supplies. Large scale infrastructure is generally provided by the government or publicly regulated monopolies. Private firms or through local collective action often smaller infrastructure can be generated.

3.3 ENERGY AND POWER INFRASTRUCTURE

Energy infrastructure deals with production consumption and import of energy including electricity. Energy and power infrastructure include production and distribution of Coal, Oil and Natural Gas, LPG, Biomass and Charcoal, Biogas etc including solar energy and electricity. The energy policy of India is largely defined by the country's expanding energy deficit and thereby aimed on developing alternative source of energy, particularly solar energy, tidal, wind and nuclear energy. India ranks 81 in overall energy self-sufficiency in 2014 and energy sufficiency in India are 66 per cent. India ranks second after China in renewables production with 208.7 Million Tons in 2016.In India,during 2018, the total investmentin energy sector was 4.1 percent of total global investment (US$ 75 billion of US$ 1.85 trillion global investment). The primary energy consumption like consumption of coal, oil etc. in India grew by 7.9 percent in 2018 and is the third biggest after China and USA with 5.8 percent global share. So to meet the huge demand India has to import different types of primary energy. In 2018, India's net imports are nearly 205.3 million tons of crude oil and its products, 26.3 million tons of LNG (Liquefied Natural Gas) and 141.7 Million Tons of coal, which is equal to the 373.3 Million tons of primary energy or 46.13 percent of total primary energy consumption. It is seen that India is largely dependent on fossil fuel imports to meet its energy demands. It is expected that by 2030, India's energy imports is expected to exceed 53 percent of the country's total energy consumption.

Table 3.1 shows the primary energy consumption in India in the calendar year 2018. From the table it is seen that the highest consumption is of Coal followed by crude oil. The lowest consumption is of nuclear energy.

Table 3.1 : Primary energy consumption in India in recent years

Year	Coal #	Lignite	Crude Oil** MMT	Natural Gas (Billion Cubic Metres)	Electricity (GWh)
	(Million Tones)				
1	2	3	4	5	6
2012-13	713.39	46.31	219.21	57.37	8,24,300.99
2013-14	739.34	43.90	222.50	52.37	8,74,208.57
2014-15	822.13	46.95	223.24	51.30	9,48,521.67
2015-16	836.73	42.21	232.86	52.52	10,01,190.68
2016-17	837.22	43.16	245.36	55.70	10,61,182.64
2017-18	898.49	46.32	251.93	59.17	11,23,426.86
2018-19	968.36	45.81	257.20	60.80	12,09,971.63
2019-20	955.92	42.27	254.39	64.14	10,48,085.82
2020-21	906.33	38.49	221.77	60.82	12,30,207.98
2021-22 (P)	1,028.12	49.07	241.70	63.91	12,96,300.00
Growth rate of 2021-22 over 2020-21 (%)	13.44	27.49	8.99	5.08	5.37
CAGR 2012-13 to 2021-22 (P) (%)	4.14	0.65	1.09	1.21	5.16

(P): Provisional
GWh = Giga Watt hour = 10^6 × Kilo Watt hour
** Crude Oil in terms of refinery crude throughput.
# Does not include Lignite
Source: *1. Office of Coal Controller, Ministry of Coal*
2. Ministry of Petroleum & Natural Gas.
3. Central Electricity Authority.

Source: Energy Statistics India, 2023

As per the latest energy statistics, the energy consumption per person in India is 24,453 Mega Joules. Due to rapid development projects the demand for energy in India has increased manifolds. Therefore the energy market is growing very rapidly in recent years. By 2035 Indian market is expected to become the second-largest in global energy demand and will consume 18 percent of the rise in global energy consumption. Now India's growing energy demands and limited stock of nonrenewable energy like domestic oil and gas reserves compels the country to harness the nontraditional or alternative sources of renewable energy whose supplies are unlimited. So importance of renewable energy like nuclear energy, solar energy, wind energy or tidal energy has increased.

The various sources of energy are discussed as follows:

3.3.1 Coal

India is the fifth largest coal producer in 2022-23 with 361409 million tonnes (10 percent of global share). Out of total energy genrated in India, approximately 73 percent comes from coal (2022-23). According to Greenpeace, an International NGO, the largest coal belt in India is at Jharia of Jharkhand having 19.4 billion tons of cooing coal. Before coal mining Jharia had forests inhabited by tribes. In 1971 the coal mines were nationalized and Bharat Cooking Coal Limited (BCCL) took over Jharia coal mines.India accounts for the world's greatest concentration of coal seam fires. So areas surrounding coal fields usually suffers from pollution of air, water and land.In India coal are mainly found in Eastern and South central India. Jharkhand has the highest deposit of coal.

Table 3.2 shows the coal reserve in different states of India.

Table 3.2: Coal reserve in India by states (2022-23)

States	Coal Reseves (In million tonnes)	States	Coal Reserves (In million tonnes)
Jharkhand	86660	Uttar Pradesh	1062
Odisha	88105	Arunachal Pradesh	90
Chhattisgarh	74192	Meghalaya	576
West Bengal	33871	Assam	522
Telangana	23034	Nagaland	478
Andhra Pradesh	4142	Sikkim	101
Bihar	4437	All India	361409

Source: Energy Statistics India, 2023.

In fact, India continues to rely significantly on coal as its main energy source. About 72.92 percent of all energy produced in FY:2021-22(P) was produced using coal, followed by electricity (from Hydro, Nuclear and other Renewable energy sources) (8.24 percent) and natural gas (8.16 percent).

3.3.2 Oil and Natural Gas

India's estimated crude oil reserves as of April 2022 were 651.77 million tonnes. According to the geographic distribution of crude oil, the Western Offshore has the largest reserves (33 percent) followed

by Assam (23 percent).

Natural gas reserves were expected to be 1138.67 billion cubic metres as of April 1, 2022. Western offshore has the largest natural gas reserves (29.6 percent), followed by eastern offshore (23.6 percent). According to the the Report *'Energy Statistics India, 2023'*, Crude oil and natural gas is the second and third largest producer of electricity in India just after coal. They contributed 10.34 per cent and 8.7 per cent of total electricity generated in India respectively. As on 31 March 2018, India had estimated crude oil reserves of 594.49 million tons (MT) and natural gas reserves of 1339.57 billion cubic meters (BCM). In 2017 , India was the third top crude oil consumer globally. About 4.8 percent of global consumption was done in India which is equivalent to 221 Mt. In the same year the net crude oil (including crude oil products) importswas188 Mt which puts India in third rank among Oil importer countries. India has a huge demand for oil and imports 82 percent of its oil needs. But by 2022 India aims to reduce her oil import by 67 per cent and for this focus would be on local exploration, extensive use of renewable and alternative source of energy. Oil and natural gas are mostly found in Assam, Gujarat and East and Western offshore of the country. Assam has a reserve of 159.96 MT of crude oil and 158.57 BCM of natural gas which is the highest among the states in India. However the largest reserve of oil and natural gas is found in Western offshore

Liquefied petroleum gas:Nearly 10.52 million tons liquefied petroleum gas (LPG) was consumed during April to September 2018 (six months) in domestic sector mainly for cooking. The number of domestic connections are 247 million (one connection for five people) with a circulation of more than 368 million LPG cylinders. India is second largest consumer of LPG globally.Most of the LPG requirement is imported. Piped city gas supply in India is not yet developed on major scale.

3.3.3 Biomass and Charcoal

Biomass is a renewable energy source and its use for energy generation in carbon neutral fuel. It is carbon neutral because it would also release greenhouse gases like methane and carbon dioxide when it is left to degenerate without using as energy source. India produces about 450-500 million tonnes of biomass per year. 32 percent of all primary energy used in the country is from biomass. Plants like Jatropha curcas, Neem, Mahua and other wild plants are identified as the potential sources for biodiesel production in India. Presently, only 20 percent of households in India use biomass and charcoal for cooking purpose. In addition biomass is also used marginally in commercial cooking, electricity generation, process industries, etc. The total biomass use in India is nearly 177 Million tons in the year 2013. Nearly 750 million tons of nonedible (by cattle) biomass is available annually in India which can be put to use for higher value addition.

3.3.4 Wind, Nuclear and Solar Energy

India's position in world's wind power market is fourth largest. The Government is about to add 100,000 MW of solar power capacity by 2020.

India has also planned to increase the contribution of nuclear power from 4.2 percent to 9 percent to overall electricity generation capacity within 25 years. The country has five nuclear reactors under construction (third highest in the world) and plans to construct 18 additional nuclear reactors (second highest in the world) by 2025.

Solar energy is also a renewable source of energy which can be harnessed very effectively. The energy of sun is limitless and can be converted to electricity using appropriate technology. The cost of solar energy in India is lower than any other type of power generation in India. Also the cost of solar thermal power project plan in India is cheaper than fossil fuel plants. Very shortly, solar

electricity price is going to become the benchmark price for deciding the other fuel prices based on their ultimate use and advantages.

3.3.5 Electricity

About 80 percent of the Indian population had access to electricity. By 2013, India became the world's third largest producer of electricity with 4.8 percent global share, surpassing Japan and Russia.India ranks 7th globally in hydropower generation during the year 2015.

India has 111 gigawatts (GW) (32 percent) installed capacity of renewable energy and set a target of 175 GW by 2022. This would include 100 GW capacity from solar energy sources, 60 GW from wind power, 10 GW from bio power, and 5 GW from small hydropower. India is one of the world leaders in renewable energy investments and installations. In 2018 the central government set up a US$350-million fund to finance solar projects.

3.4 TRANSPORT SYSTEM

We know that the transport system in India includes Rail transport, Road transport, Air transport, water transport and portal connectivity. India has one of the largest road networks in the world, largest railway system in Asia and second largest in the world.

3.4.1 Rail Transport

Indian Railway is the national railway network which is operated by Ministry of Railway. The first rail railway line in India was operated for public in 1853, between Bombay (Now Mumbai) to Thane over distance of 34 km and it was nationalized in 1950.Indian Railway is the 3rd largest rail network in the world after US and China. It is a multi-gauge, multi-traction system covering Broad Gauge (1676 mm), Meter Gauge (1000 mm), Narrow Gauge (762/610 mm) with. route length of 67,368-kilometre (41,861 mi) and total track length of 121,407-kilometre (75,439 mi) as of March 2017.Indian Railway runs

more than 20,000 passenger trains daily, on both long-distance and suburban routes, from 7,349 stations across India. The fastest trains in Indian railways are Rajdhani Expresss, Shatabdi Express and Gatiman Express. Indian railways has also introducedthe semi-high speedVande Bharat Express (also called asTrain-18), between Delhi-Varanasi and Lucknow-Delhi with a maximum track speed of 180 km/h. Train 18 is so far the fastest train in India. The Vivek Express - from Dibrugarh to Kanyakumari - travels 4,273 km, making it the longest-run in terms of total time & distance. The Konkan Railways passes through 3 states of India - Goa, Maharashtra and Karnataka. It runs along the Indian west coast parallel to Arabian Sea and Western Ghats. It is an extremely beautiful and scenic route running from Maharashtra till Karnataka (112mph). The railways recognised by UNESCO are Darjeeling, Himalayan Railways, Nilgiri Mountain Railways, Chhatrapati Shivaji Terminus, and Kalka-Shimla Railways. Indian Railway runs more than 9,200 freight trains daily. Indian Railway has 17 zones. The production units are Chitranjan Locomotive works at Chitranjan, Diesel Locomotive works at Varanasi, Diesel Loco modernization works at Patiala, Integral coach Factory at Chennai, Rail coach Factory at Kapurthala, Rail wheel factory at Bengaluru. Indian Railway becomes the world's eighth-largest employer, it had 1.308 million employees as of March 2017. In 2018, IR carried 8.26 billion passengers and transported 1.16 billion tons of freight. In the fiscal year 2017-18, IR is projected to have revenue of ?1.874 trillion (US$27 billion), consisting of ?1.175 trillion (US$17 billion) in freight revenue and ?501.25 billion (US$7.3 billion) in passenger revenue.



LET US KNOW

The Dedicated Freight Corridor Corporation of India Limited (DFCCIL) is a corporation run by the Ministry of Railways (India) to undertake planning & development, mobilization of financial resources and construction, maintenance and operation of the different dedicated freight corridors.

It is both enabler and beneficiary of other key Government of India schemes, such as Industrial corridor, Make in India, Start-up India, Stand-up India, Sagarmala, Bharatmala, UDAN-RCS, Digital India, BharatNet and UMANG.

Recently NITI Aayog has been planning to make a holistic development in 150 trains and 50 railway station which a strong potential to draw private investment. The cost of development of railway stations in metro cities in India is pegged at about Rs 10,000 crores, while that in tier-2 cities could be between Rs 3,000 crores and Rs 4,000 crores.

3.4.2 Road Transport

Roads help in connecting far-fetch villages, interior countryside and hill areas which are not connected with railways. It is complimentary to railways. It acts as arteries for goods and passenger arriving at the railway station and often provides last mile connectivity. India has the one of largest road network across the world. India's road network is the third largest in the world spanning over a total of 5.5 million km. This road network transports 64.5 per cent of all goods in the country and 90 per cent of India's total passenger traffic uses road network. Nagpur plan of 1943 classified the roads into four categories- National Highway, Highway, State Highway, District roads and Village roads. National Highways comes under jurisdiction of National Highway Authority of India (NHAI). NH 44 covers the North-South Corridor of NHDP and it is officially listed as running over 3,745 km (2,327 miles) from Srinagar to Kanyakumari is considered as the longest highway.National Highway 47A has length of 6 km that links the Junction with NH 47 at Kundanoor to the Town of Willington Island in Cochin isconsidered as the shortest highway.



LET US KNOW

- Best Expressway in India: The Ahmedabad Vadodara Expressway is known as one of the best Expressway in India and also referred as the National Expressway1.
- Longest Elevated Freeway: Chennai Port Maduravoyal Elevated Expressway will be the longest Elevated Expressway in India
- Golden Quadrilateral (GQ) stretch which connects the four metro cities of India (Delhi, Mumbai, Kolkata and Chennai)
- National Highways are specified by Yellow and White colour milestones. State Highways are specified by Green and White colour milestones. City roads are specified by black and white colour milestones.

3.4.3 Air Transport

The Air transport is the fastest and the costlier mode of transport. It was started in 1911 in India between Allahabad and NainitalIn 1995, International Airport Authority of India and National Airports Authority were merged to form Airports Authority of India. The authority manages the Civil Aviation Training College at Allahabad and National Institute of Aviation Management and Research at Delhi. Aviation in India, broadly divided into military and civil aviation, is the fastest-growing aviation market in the world. Prior to 2016, India had 75 operational airports, built over a century. In the year-and-a-half since, that number has increased to 100. The credit for boosting in connectivity goes to UDAN, a government scheme launched in October 2016, that has linked 25 smaller cities and towns by air. Pawan Hans Helicopter Limited has providing helicopter support services to the petroleum sector like ONGC, ODL etc. and also provides services to certain state Governments, PSU and in the North-Eastern States.

3.4.4 Water Transport

Water transport in India is one of the cheapest modes of transportation. Cost of water transportation per kilometer is 50 paise only as compared to Rs 1 in railway and Rs 1.5 in roadways. India has an extensive network of inland waterways in the form of rivers, canals, backwaters and creeks. The total navigable length is 14,500 km (9,000 mi), out of which about 5,200 km (3,200 mi) of river and 4,000 km (2,500 mi) of canal can be used by mechanized crafts. About 44 million tonnes (49,000,000 short tons) of cargo are moved annually through these waterways using mechanized vessels and country boats. Freight transport by waterways is highly under-utilized in India compared to other large countries and geographic areas such as the United States, China and the European Union. The total cargo moved (in tonne kilometres) by inland waterways was 0.1 percent of the total inland traffic in India, compared to the 21 percent figure for the United States. There are six national water ways set-up by Inland water ways Authority of India in 1986. There are 13 major ports and 187 minor ports in India.



LET US KNOW

Six National Water Ways:

NW1- Allahabad along Ganga River,

NW2- Sadiya-Dhubri along Brahmaputra River,

NW3- Kottapuram-Kollam,

NW4- Bhadrachalam to Rajahmundri and Wazirabad to Vijaywada along Godavri and Krishna River,

NW5- Mangalgarhi to Paradeep and Talcher to Dharmara along Mahanadi and Brahmnai River,

NW6- Lakhipur to Bhanga along the Barak River.



CHECK YOUR PROGRESS

Q 1: Name the four metro cities that are connected by the Golden Quadrilateral.

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Q 2: Which national waterway covers the Dhubri- Sadiya stretch of the Brahmaputra?

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Q 3: Which train in India cloaks the highest speed?

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3.5 COMMUNICATION SYSTEM

We all know that the communication system of any country includes postal and telegraph services, telecommunication systems, television and broadcasting, and also information services, etc. The following are the different types of communication system in India.

3.5.1 Postal Service

India has the largest postal network in the world. The postal system in India was started in 1854. At that time Department of Posts has been created with on an around 700 post offices. Currently, there are more than 1.5 lakh post offices across the country. In recent years, the Government has given more importance on the tribal, hilly, and rural areas and thereby accelerating the reach of country's postal network. Now India's postal network has the few advanced features like saving banks, satellite money order, a hybrid mail service with electronic devices and metro channel service in metro cities etc.

3.5.2 Telecommunication

In 1851, telecommunication services were introduced in India and the first telegraph message was sent between Kolkata (erstwhile Calcutta) and Diamond Harbor. However telegraph service has been closed permanently in 2013. In 1881-82, telephone services were launched and in due course, telecommunications services have

undergone phenomenal growth and change. In the post liberalization period the telephone service has shown a robust growth. The National Telecommunications Policy of 1994, divided the country into 20 circles for basic telephones and 18 circles for mobile-related services. The Mahanagar Telephone Nigam Limited (MTNL) and the Bharat Sanchar Nigam Limited (BSNL) are the two public sector telecom company in India.

3.5.3 Radio and Television

Radio services in India started in twentieth century only. Radio broadcasting started in 1927 and commercial broadcasting started in 1967. Television, on the other hand, started regularly from 1965. In 1976, it was separated from the All India Radio (AIR) and Doordarshan was formed. Currently, the television industry is a huge industry providing revenue and creating employment opportunities.

3.5.4 Internet

Internet has created a revolutionary change in the communication sector of the country. The first publicly available internet service in India was provided by Videsh Sanchar Nigam Limited (VSNL) on 15 August 1995.In 2018, India had a population of 130 crore people (1.3 billion) out of which internet user is 56 crore which accounts 41 percent of countries total population. With internet and smart phones the countries total e commerce business has shown a growth of 51 per cent.

3.6 URBAN INFRASTRUCTURE IN INDIA

India's urban area has been growing rapidly. Nearly 31 percent of India's current population lives in urban areas which contribute to 63 percent of India's GDP (Census 2011). India's urban growth is largely concentrated in large cities with a population of 10,00,000 or more, the number of cities with a population exceeding 1 million has increased from 35 in 2001 to 53 in 2011, accounting for 43 percent of India's urban population, and is expected

to be 87 by 2030. With increasing urbanization, urban areas are expected to incorporate 40 percent of India's population and contribute to 75 percent of India's GDP by 2030.

Government of India has launched various urban development schemes in the recent years with an aim to improve quality of life and attract investment in urban areas and thereby promoting and boosting growth. One of these scheme is smart city mission which is discussed below.

Various incentives have also been offered for building up and invest in urban infrastructure. Promoting affordable housing through different rebate and discount and National Investment and Infrastructural Funds are important among them.

3.7 SMART CITIES MISSION

Government of India announced smart cities mission with an aim to develop 100 cities by providing core infrastructure and give a decent quality of life to its citizens, a clean and sustainable environment and application of 'smart' solutions. Actually it is an urban renewal mission. The focus is on sustainable and inclusive development and the idea is to look at compact areas, create a replicable model which will be an example for other aspiring cities. The major aspects of smart city mission are manifolds. A smart city must have adequate water supply, assured electricity supply, proper sanitation, including solid waste management ,efficient urban mobility and public transport affordable housing, especially for the poor, robust IT connectivity and digitalization, good governance, especially e-Governance and citizen participation, sustainable environment safety and security of citizens, particularly women, children and the elderly, and Health and education. The central Government proposes to give financial support to the Mission to the extent of USD 7.77 billion in the next five years (FY2015-16 to FY2019-20). In the first year, Government proposes to give USD 30.77 million to each selected Smart City to create a higher initial corpus, followed by USD 15.38 million every year for the next three years. The smart city mission comprises of city improvement, city renewal and city expansion.Smart Cities will feature

urban development and expansion of housing opportunities under different schemes like Atal Mission for Rejuvenation and Urban Transformation (AMRUT), Pradhan Mantri Awas Yojana and Swachh Bharat Mission.



ACTIVITY 3.1

Collect and study the main objectives of Atal Amrut, Pradhan Mantri Awas Yojna and Swachh Bharat Mission.

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3.8 INDUSTRIAL CORRIDOR

An industrial corridor is a package of infrastructure provided to a specific area with an aim to stimulate industrialization. We know that investors will like to invest in an area which is well equipped with electricity, water supply, transport communication etc. An industrial corridor will provide all those basic infrastructural facilities to the investors and thereby attracting them towards the region to invest more. In this way the industrialization has boosted up and so economic development. An industrial corridor aims to create an area with a cluster of manufacturing or other industry. Such corridors are often created in areas that have existing infrastructure, such as ports, highways and railroads beforehand. These modalities are arranged such that an arterial modality, such as a highway or railroad, receives "feeder" roads or railways. Before creating these corridors a proper assessment of demand and viability should be made. Moreover transport option for goods and workers, land values and economic incentives for companies should be taken care of.

Economic Corridors of India or Industrial Corridors of India include: Delhi-Mumbai Industrial Corridor Project, Shendra-Bidkin Industrial Park, Chennai-Bangalore Industrial Corridor, Mumbai-Bangalore economic corridor, Amritsar-Delhi-Kolkata Industrial Corridor, Udhana- Palsana

Industrial Corridor, East Coast Economic Corridor, Kochi-Bangalore Industrial corridor.



LET US KNOW

India and Japan have joined hands for infrastructure development in India's north-eastern states and are also setting up an India-Japan Coordination Forum for Development of North East to undertake strategic infrastructure projects in the northeast.



CHECK YOUR PROGRESS

Q 4: Briefly discuss the recent trend of urbanization in India. (Answer in about 60 words).....

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Q 5: Mention the major focus laid down by the Smart Cities Mission in India. (Answer in about 30 words)

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Q 6: Name the economic corridors in India.

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3.9 LET US SUM UP

- The infrastructural development is very crucial for rapid economic development.
- Infrastructure includes energy and power, transport and communication etc.
- In India the recent focus in the field of energy infrastructure is towards alternative source of energy like solar, wind and nuclear energy.
- In India we have used four types of transportation like rail, road, air and water.
- Water is the cheapest mode of transportation but operating in under capacity. In the field of communication the internet users have increased substantially.
- India's urban infrastructure has developed in the recent years and expected to expand more in the coming years.
- Projects like smart cities attract investment and boost up urban infrastructural development. Industrial corridors are built up to boost industrialization and thereby economic development.



3.10 FURTHER READING

1) Datt, G and Mahajan, A. (2016). *Datt & Sundharam's Indian Economy.* New Delhi: S. Chand & Co.
2) Dhar, P.K. (2015). *Indian Economy - Its Growing Dimension.* New Delhi: Kalyani Publishers.
3) Dash, L.N. (2008). *Infrastructure Development and Indian Economy.* New Delhi: Regal Publications.



3.11 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: The four metro cities of India connected by the Golden Quadrilateral (GQ) stretch are Delhi, Mumbai, Kolkata and Chennai.

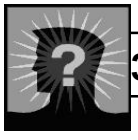
Ans to Q No 2: National Waterway 2.

Ans to Q No 3: The Bande Bharat Expressway.

Ans to Q No 4: India's urban area has been growing rapidly. Nearly 31 percent of India's current population lives in urban areas which contribute to 63 percent of India's GDP (Census 2011). The number of cities with a population exceeding 1 million has increased from 35 in 2001 to 53 in 2011, accounting for 43 percent of India's urban population, and is expected to be 87 by 2030.

Ans to Q No 5: The major focus of the Smart Cities Mission is on sustainable and inclusive development and the idea is to look at compact areas, create a replicable model which will be an example for other aspiring cities.

Ans to Q No 6: Economic Corridors of India or Industrial Corridors of India include: Delhi-Mumbai Industrial Corridor Project, Shendra-Bidkin Industrial Park, Chennai-Bangalore Industrial Corridor, Mumbai-Bangalore economic corridor, Amritsar-Delhi-Kolkata Industrial Corridor, Udhana- Palsana Industrial Corridor, East Coast Economic Corridor, Kochi-Bangalore Industrial corridor.



3.12 MODEL QUESTIONS

Short questions (Answer each question in about 150 words)

Q 1: Briefly describe the communication infrastructure in India.

Q 2: Briefly discuss Smart Cities Mission launched in India.

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

Q 1: Explain the energy infrastructure in India

Q 2: Explain the transport and Communication system in India

Q 3: Discuss the status alternative energy sources in India

Q 4: Explain smart city mission as a part of urban infrastructure in India.

Q 5: What do you mean by Industrial corridor? Do you think industrial corridor helps to boost up industrial growth?

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UNIT 4 : INDIAN AGRICULTURE & GREEN REVOLUTION

UNIT STRUCTURE

4.1 Learning Objectives

4.2 Introduction

4.3 Role of Agriculture in Indian Economy

4.4 Trends in Agricultural Production and Productivity

- 4.4.1 Growth of Agriculture since 1951
- 4.4.2 Present Status of Productivity of Indian Agriculture

4.5 Factors Influencing Agricultural Productivity

4.6 Green Revolution in India

4.7 Impact of Green Revolution

- 4.7.1 Achievements of the New Agricultural Strategy
- 4.7.2 Weaknesses of the New Agricultural Strategy

4.8 Let Us Sum Up

4.9 Further Reading

4.10 Answers to Check Your Progress

4.11 Model Questions

4.1 LEARNING OBJECTIVES

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

- become familiar with the place of agriculture in the Indian economy,
- be acquainted with the nature of India's agriculture,
- be able to draw the major objectives of agriculture in the context of Indian Planning,
- describe the present status of agriculture in the Indian economy, and point out the factors that affect agricultural production and productivity, and
- discuss the new agricultural strategy, viz., Green Revolution and its impact on the agricultural sector of the country.

4.2 INTRODUCTION

Agriculture in India has a long history dating back to ten thousand years. Today, India ranks high in the world in terms of farm output. Agriculture and allied sectors like forestry and logging accounted for 16.6 percent of the GDP in 2007 employing 60 percent of the total workforce and despite a steady decline of its share in the GDP, it is still the largest economic sector that plays a significant role in the overall socio-economic development of India. Contribution of agriculture to GDP in some recent years has been shown in Unit 8 (section 8.4).

Agricultural growth has a direct impact on poverty eradication and is also an important factor in containing inflation, raising agricultural wages and for employment generation.

India is the largest producer of milk, cashew nuts, coconuts, tea, ginger, turmeric and black pepper in the world. It also has the world's largest cattle population (281 million). It is the second largest producer of wheat, rice, sugar, groundnut and inland fish. It is the third largest producer of tobacco. India accounts for 10 percent of the world's fruit production with first rank in the production of banana and sapota.

Thus, it is clear that agriculture is the backbone of the Indian economy particularly in the rural areas. The rural areas are the biggest markets for low priced and middle priced consumer durables. Besides, rural domestic savings are a ready and important source of resource mobilisation. This unit will be helpful to you in getting an overall idea about Indian agriculture and various issues of this sector.

4.3 ROLE OF AGRICULTURE IN INDIAN ECONOMY

The significance of agriculture in the Indian economy can be discussed under the following major heads:

- Share of agriculture in national income,
- Role of agriculture in employment generation,
- Impact of the agricultural sector on industrial development,
- Role of agriculture in the earning of foreign revenue, and

- Its role in the overall economic growth of the country.
- Other important roles of the agricultural sector
- Share of agriculture in national income: Since independence, the share of agriculture in national income has declined continuously. This can be viewed from the following table 4.1.

Table 4.1: Share of Agriculture in National Income (GDP)

Period	Share of agriculture in GDP
1950-51	55
1970-71	44
1990-91	31
2000-2001	26
2005-06	20
2022-23	17

Source: Economic –Survey 2006-07, Table 1.3, RBI Annual Report, 2006-07; www.statista.com

From Table 4.1, it can be seen that in 1950-51, the share of agriculture in the GDP was around 55 percent. As the process of industrialization and economic growth gathered momentum under the five year plans with manufacturing and service sectors growing rapidly, the percentage share of agriculture in the GDP declined and reached a level of only 20 percent in 2005-06 and 18 percent in 2006-07. In 2007-08, the share of agriculture in the GDP was 17.8 percent, which again came down to less than 17 percent in 2023.

Please refer to Unit 8 (section 8.4, Figure 8.1) for knowing the contribution of agriculture to GDP in some recent years.

- **Role of agriculture in employment generation:** Though the share of agriculture in national income has considerably declined, yet a very high proportion of the working population in India is still engaged in this sector. Data provided by the Census of India reveal that in absolute terms, agriculture provided employment to 98 million persons in 1951. The number of people working on land (cultivators and agricultural labourers) increased to 235 million in 2001. In terms of percentage, however, people working

on land came down from 70 percent to 59 percent during the five decades between 1951 and 2001. Contribution of agriculture in total employemt in the economy has gradually come down from 63 percent in 1991 to 43.9 in 2018. (Please refer to section 8.4, Figure 8.2 for a comparative scenario.)

Also please note that the Tenth five year plan (2002-2007) report estimated that the agricultural sector still provides employment to 57 percent of India's workforce and is the single largest private-sector occupation. It is disturbing that the proportion of agricultural labourers has increased from 20 per cent to 27 per cent between 1951 and 2001 but that of cultivators registered a decline from 50 percent to 32 percent. This shows clearly the growing pauperisation (pauperisation means making poorer than before) of the rural peasantry.

- **Impact of the agricultural sector on industrial development:** Indian agriculture has been the source of supply of raw materials to its leading industries. Cotton and jute textile industries, forest-based industries, sugar, flour mills, edible oils etc depend on agriculture directly. Other small-scale and cottage industries like handloom weaving, oil crushing, rice husking etc depend upon agriculture for their raw materials. Together they account for 50 percent of income generated in the manufacturing sector in India.

  However, in recent years, the significance of agriculture to industries is going down as many new industries have come up which are not dependent on agriculture. But the importance of food processing industries in recent years is being recognized both for generation of income and employment.

- **Role of agriculture in the earning of foreign revenue:** Agricultural products like tea, sugar, oilseeds, tobacco, spices etc constitute the main items of exports of India. Broadly speaking, the proportion of agricultural goods which are exported is about 50 percent of our exports. Again, certain manufactured products which use raw materials of this sector viz., jute, clothes and sugar contribute to another 20 percent to the aggregate export volume of the country. Thus, the agricultural sector contributes to 70 percent of India's export in terms of volume. The Tenth

plan estimated that agriculture contributed about 15 percent of the total export earnings in terms of revenue. This has a great significance for economic development. Increased export helps the country to pay for the increased import of machinery and raw materials.

- **Role of agriculture in the overall economic growth of the country:** Agriculture in India is one of the major factors for the growth of the Indian economy which is still primarily agrarian. Agriculture is the most important sector in India. As the Indian economy is mainly based on agriculture, the annual output of products from the agricultural sector is an important factor in the growth of the economy. Agriculture also has a crucial role to play in Indian exports, where it has a significant contribution. Many of the industries in India are dependent on agriculture for raw materials. So, without agriculture and agriculture-based products, the Indian economy cannot sustain or accelerate its growth rate.
- **Other important roles of the agricultural sector:** Apart from the above, the agricultural sector also plays the following roles:
  - India's transport system secures bulk of their business from the movement of agricultural goods. The internal trade of the country is mostly in agricultural products.
  - Prosperity of the farmers leads to prosperity of industries. Prosperous farmers have greater demand for manufactures. Likewise, bad crops lead to a depression in business. Generally, a failure in the agricultural sector leads to failure of economic planning.
  - The 11th plan emphasises that the agricultural sector should act as a bulwark (bulwark means protecting something against some evils) in maintaining food security and in the process, national security as well.
  - Allied sectors like horticulture, animal husbandry, dairy and fisheries have an important role in improving the overall economic condition and health and nutrition of the rural masses.
  - To maintain the ecological balance, there is a need for sustainable and balanced development for both agriculture and allied sectors. The 11th plan recognizes this fact and gives importance to the development of the agricultural sector.



CHECK YOUR PROGRESS

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

(a) In 1950-51, the share of agriculture in the GDP was around 55 percent. (T/F)

(b) The share of agriculture in GDP declined to 17.8 percent in 2007-08. (T/F)

Q 2: Do you agree that the condition of the rural cultivators in India has turned worse over the years? Justify your position. (Answer in about 50 words).

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4.4 TRENDS IN AGRICULTURAL PRODUCTION AND PRODUCTIVITY

4.4.1 Growth of Agriculture since 1951

A comparative picture of the growth rate of the agricultural and allied sectors and the GDP growth rate at the same period has been shown in the following table 4.2.

It can be seen from the table that the growth rate of agriculture has lagged behind that of GDP all the decades of planning shown here. Thus, during 1951-1961, the annual rate of growth in agriculture was 3.3 percent, while the rate of growth of GDP was 3.8 percent. During the subsequent decades of planning as well, the growth rate of agriculture was below the growth rate of GDP. Despite spectacular progress achieved under the new agricultural strategy based on IADP (Integrated Area Development Project) and HYVP, the overall progress in agriculture was very poor. During 2001-2007, the annual

average rate of growth of agriculture declined to 2.2 percent, mainly because of poor monsoon conditions, although the GDP growth rae rose to 7.2 percent.

Table 4.2: Growth of the Agricultural Sector since 1950-51

Period	Compound Annual Growth Rate of agriculture and allied sector	Growth rate of GDP
1951-1961	3.3	3.8
1961-1971	2.2	3.7
1971-1981	1.7	3.3
1981-1991	3.9	5.7
1991-2001	2.8	6.7
2002-2007	2.1	7.5
2007-2012	3.6	8.1

Source : Center for Monitoring Indian Economy; Basic statistics of the Indian Economy, Vol 1,August 1992, August 1994; Economic survey 2006-2007.

But it is gratifying to note that with the green revolution, India not only became self-sufficient in food grains but also accumulated a huge food surplus – about 58 million tonnes in January 2002. As a result of adoption of improved inputs and management practices, the total food grain production increased from a mere 50.8 million tonnes in 1950-51, to 212 million tonnes in 2006-07. Thereafter, the condition of agriculture improved during the fourth decade of planning (1981-1991). The growth rate in the 1980s rose to 3.9 percent. But again, the compound growth rate of agriculture for the period 1991-2001 declined to 2.8 percent. Since then, especially during 2002-2003, agricultural production continued to decline. Although there was some improvement in the agricultural growth; yet it was much lower than the targeted growth rate of four per cent per annum. During the 11th plan, the annual growth rate in agriculture was 3.6 percent while the annual growth rate of GDP was 8.1 percent.

According to a study conducted by CII (Confederation fo Indian Industry) and Bain & Company, two-thirds of India's population participated in the rural economy in 2019–20, with about 60 percent

concentrated in six states. Uttar Pradesh has the highest rural population (~18 crore), followed by Bihar (~11 crore). Maharashtra, West Bengal, Madhya Pradesh and Rajasthan also comprise a large share of the rural economy. Since 2017, the rural workforce has been increasing at a rate of 8 percent to 12 percent per annum in states like Rajasthan, Uttar Pradesh, and Bihar. Within the rural economy, agriculture holds the highest share of output (37 percent).Agriculture is among the fastest growing sectors in the rural economy, with a compound annual growth rate (CAGR) of 11 percent over the last five years. (Source: Business Line, March 4, 2022)

4.4.2 Present Status of Productivity of Indian Agriculture

Since the 1960s, India's agricultural development, more commonly called the green revolution, has been applauded the world over and many developing countries have started considering India as their role model. Initially, India remained a food deficit country for almost 2 decades since independence. But with the green revolution, India not only became self-sufficient in food grains but accumulated a huge food surplus – about 58 million tonnes in January 2002. As a result of adoption of improved inputs and management practices, the total food grain production increased from a mere 50.8 million tonnes in 1950-51, to 212 million tonnes in 2006-07 and productivity increased from 522 kg/ha to more than 1707 kg/ha. The productivity of wheat, rice and oilseeds increased to a greater extent than other crops. The increase in production of food grain was possible as a result of adoption of quality seeds, higher dose of fertilizer and plant protection chemicals, coupled with assured irrigation. As a result, not only has the country achieved self sufficiency in foods but also has adequate agro-produce for export.

Our agriculture is now at the crossroads. The use of certified/ quality seeds by the farmers has increased to 700,000 tonnes. The fertilizer consumption has increased to 21.65 million tonnes (more than 112.69 kg/ha) in 2006-07 from 0.29 million tonnes in 1960-61.

The use of technical grade plant protection chemicals has increased to 56.11 thousand tonnes (0.4 kg/ha) from a meagre 8.62 thousand tonnes in 1960-61 during the peirod. According to a recent report, the current use of agrochemicals in the Indian market is low, with only 0.27 kg per hectare, which is far less than in developed countries. (The Times of India, April 27, 2023)

Crop and site specific agricultural mechanization and agro-based small and medium enterprises in rural sector using a proper blend of conventional and renewable energy sources will facilitate in enhancing agricultural productivity and profitability resulting in higher income for farmers and better quality of life.

The major factors for such success of agriculture were: increase in the net areas sown, expansion of irrigation facilities, land reforms, specially consolidation of land holdings.

However, in spite of the spectacular achievements, various constraints and disturbing trends have continued to hamper the required growth of the agricultural sector. These are mainly because of the following factors:

- Agriculture in India continues to be a gamble in the monsoons.
- There is limited use of new agricultural technology. The new technologies succeeded only in wheat and to a small extent in rice. Other food crops and non-food crops did not show any perceptible improvement in production.
- Decline in investment in agriculture.
- Limited success of the land reform measures and growing exploitation of tenants.
- Failure to control growth of rural population.
- Unbalanced regional agricultural development.



CHECK YOUR PROGRESS

Q 3: Which factors in India have contributed to the success of its agricultural sector? (Answer in about 30 words) .....

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Q 4: State whether True (T) or False (F).

(a) Green revolution in India was a total failure. (T/F)

(b) Over the years in India, investments in the agricultural have recorded tremendous growth. (T/F)

4.5 FACTORS INFLUENCING AGRICULTURAL PRODUCTIVITY

India is striving to find ways and means to keep its burgeoning population adequately fed. On the one hand it is facing the problem of declining productivity and on the other, the challenges posed by liberalization. Due to the small size of farm holdings (average farm holding size 1.6 ha) and socio-economic disparities, Indian agriculture continues to be dependent upon human (agricultural workers population 234.10 million in 2000- 01) and the animal power (27 million pairs). However, agricultural workers population is showing an overall declining trend. The agriculture sector of India saw nearly 148 million employees in financial year 2023. Considering the recent period of 2017-2023, the number of employees in the agriculture sector was the highest in fiscal year 2022 at over 158 million (Source: www.statista.com). Hand tools and animal drawn implements are still extensively used which involve a great amount of drudgery.

The factors that affect agricultural productivity include inputs such as utilizing human, animal and mechanical power, use of fertilizers, irrigation, crop technology, power, Agricultural Research and infrastructure. These have been discussed in some detail as follows :

- **Fertilizers :** After independence the use of fertilizers in India in the last 50 years has grown nearly 170 times. In 1950 the use of fertilizer per hectare in India was 0.55 Kg but by 2001-02 this figure has increased to around 90.12 Kg per hectare which further increased to 125.4 kg in 2013-14. Fertiliser consumption in 2023 was 193 kg per hectare of arable land, whihc is slightly lower than the all-time high of 210.7 kg in 2020. (Source: World Bank). The Green revolution during 1960s and

subsequent increased intensification of agriculture were the major causes behind this growth.

Fertilizers and pesticides have become a major cost of production in India along with the cost of other inputs like seeds and labor cost.

- **Irrigation :** Water is an essential natural resource for the survival of life, a key input for plant growth and is instrumental in the upkeep of the environment. Although water is a renewable source, it is quite dynamic and scarce. The source of all water is affected by a number of factors. As a result, rainfall in India is highly variable, irregular and undependable in terms of distribution and amount. The highest and lowest annual average rainfall in India is 10,000 mm (Khasi-Jaintia Hill, Meghalaya) and 100 mm in Rajasthan, respectively. The distribution of water is highly skewed and to make the distribution more equitable it better the technical feasibility of inter basin transfer of water by linking the Himalayan and Peninsular rivers has been examined and the proposal is under consideration of the Government of India.
- **Farm mechanisation :** Farm mechanisation in the agricultural sector results in:
  - Timely field operations. This increases productivity, reduces crop losses and improves the quality of agro produce,
  - Increased land utilization and ensuring efficient use of the inputs, and
  - Increased labour productivity by the use of labour saving devices, which are also cost effective and eco-friendly.

    So far, the use of tractors has been on the increase. The sale of tractors during 2005-06 touched 2,92,000 units. In 2023, it has further increased to more than 9,45,300 units. It was a increase over 12.2 percent from the previous year (Source:www.statista.com). Thus, mechanisation indicator is one of the measures of modernisation of agriculture of a country.
- **Farm Power Availability :** India has made remarkable progress in agricultural mechanisation technology. The country has evolved a selective mechanisation model using a power mix based on animate

(i.e., use of animal power) and inanimate (use of machine power) power sources. The mix of power sources includes human beings, animals, power tillers, tractors, engines and electric motors. The increasing use of tractors and irrigation pumps operated by electric motors and diesel engines are the indicators of the fact that the use of mechanical power in India has increased many fold during the last two decades.

- **Agricultural Drainage :** Drainage has become a part of integrated water management. This involves removing or conserving water as required and also being much concerned about water quality and environmental values. Land drainage and irrigation are complementary to each other for maintaining sustainable agricultural productivity. Large areas have been degraded in the country due to the problem of water-logging and salinity, especially in the irrigated alluvial tracts in north-west India (Haryana, Punjab, Gujarat etc.).
- **Women Friendly Improved Tools and Equipment for Agriculture :** Women play a major role in rural India through their active participation in agriculture. At present, the women engaged as work force in agriculture and an allied sector are estimated at about 61 million which amounts to about 30 per cent of the total rural workers in the country. Studies have shown that the Indian women work for about 14-16 hours a day to carry out various activities on farm and at home. There are more than 50 improved hand tools and equipment developed by various research organizations in the country. Out of these, 30 hand tools/ equipment have been identified which can be made suitable for women workers.
- **Agricultural Research and Development :** The apex body for education, research and extension education in the field of agriculture is the Indian Council of Agricultural Research (ICAR), established in 1929. India's transformation from a food deficit to a food surplus country is largely due to ICAR's smooth and rapid transfer of farm technology from the laboratory to the land.

  The results of agricultural research include higher yielding crop varieties, better livestock breeding practices, more effective fertilizers and pesticides, and better farm management practices. Agricultural

research is required not only to increase agricultural productivity, but also to keep productivity from falling.

- **Agriculture Infrastructure:** There is a positive relationship between infrastructure and agricultural productivity. The most obvious example of how public investment in infrastructure might affect agricultural productivity is through investment in public transportation. An improved highway system can reduce the farmers' cost of acquiring production inputs and of transporting outputs to market.

  Agriculture Infrastructure like seeds, fertilizers, irrigation sources should be organized to achieve the maximum momentum of growth. Factors like high soil productivity, supply of balanced crop nutrients, efficient water management, improved crops, better plant protection, post-production management for value-addition and marketing, are responsible for higher yield in the Indian agriculture. To achieve this, the government has taken definite steps to improve agriculture infrastructure in India. In the present day agriculture, application of modern biotechnologies like DNA finger printing, tissue culture, terminator gene technology and genetic cloning will play a vital role in raising the productivity.

- **Impact of Climate and Weather on Agriculture:** Industrialization, deforestation, encroachment of wetlands, grasslands etc. have affected the annual rainfall and the availability of water. These are bound to affect the land use system as well. Redistribution of rainfall and surface water will also adversely affect the biodiversity, productivity of both the terrestrial and aquatic eco-systems. In order to minimize the impact or to manage climate changes, large scale investments into proactive or anticipatory research is necessary to meet the emerging challenges of livelihood gathering by the agrarian economies like of India.

- **Government Programs:** The role of the government in the agricultural sector is pervasive. Government programs affect productivity through the allocation of resources and outputs. Government farm programmes are the most common examples of government involvement in agriculture. But other examples are numerous: Tax policies are

implemented to encourage private firms to undertake agricultural extension programmes. Most of the state governments are encouraging NGOs to take up extension activities.



CHECK YOUR PROGRESS

Q 5: How have the changes in climate affected the agricultural sector? (Answer in about 40 words) .....

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Q 6: Which organisation is called the apex body of education and research of agricultural studies in India? What has been its role? (Answer in about 50 words) .....

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Q 7: State whether True (T) or False (F).

(a) Men and women in India can handle all the tools used in agriculture with equal efficiency. (T/F)

(b) There is a positive relationship between infrastructure and agricultural productivity. (T/F)

4.6 GREEN REVOLUTION IN INDIA

Between 1947 and 1967, efforts at achieving food self-sufficiency were not entirely successful. Efforts until 1967 were largely concentrated on expanding the farming areas. But starvation deaths were still being reported in the newspapers. In a perfect case of Malthusian economics, population in India was growing at a much faster rate than food production. In 1961 India was on the brink of mass famine. The government realized the need for a dramatic improvement in food grain production. This called for a

drastic action to increase yield. The action came in the form of the Green Revolution.

The term "Green Revolution" is a general one that is applied to successful agricultural experiments in many developing countries. It is to be noted that this concept is not specific to India. But it was most successful in India. The Green Revolution in India is referred to the period between 1967 to 1978. Punjab was selected by the Indian government to be the first site to try the new crops because of its reliable water supply and a history of agricultural success.

Strategies of Green Revolution in India : There were three basic elements in the method of the Green Revolution:

- Continued expansion of farming areas;
- Double-cropping in existing farmland; and
- Using seeds with improved genetics.

Let us now discuss a few points on each of these strategies.

- **Continued expansion of farming areas:** As mentioned above, the area of land under cultivation was being increased right from 1947. But this was not enough in meeting the rising demand. Other methods were also required. Yet, the expansion of cultivable land also had to continue. So, the Green Revolution continued with this quantitative expansion of the farmlands.
- **Double-cropping in existing farmland:** Double-cropping was a primary feature of the Green Revolution. Instead of one crop season per year, the decision was made to have two crop seasons per year. The one-season-per-year practice was based on the fact that there is only one natural monsoon per year. The artificial monsoon came in the form of huge irrigation facilities. Dams were built to arrest large volumes of natural monsoon water which were earlier being wasted. Simple irrigation techniques were also adopted.
- **Using seeds with superior genetics:** This was the scientific aspect of the Green Revolution. The Indian Council for Agricultural Research (which was established by the British in 1929) was reorganized in 1965 and then again in 1973. It developed new strains of high yield variety

(HYV) seeds, mainly wheat and rice and also millet and corn.

As we have already mentioned, the introduction of high-yielding varieties of seeds after 1965 and the increased use of fertilizers and irrigation are known collectively as the Green Revolution. This has helped India to become self-sufficient producer of food grain production, and thus to improve the agricultural scenario of the country. Famine in India, once accepted as inevitable, has not returned since the introduction of Green Revolution in the country.

During the 1980's in spite of three years of scanty rainfall and a drought during the middle of the decade, India managed without large scale food imports, because of the increase in food grain production and the existence of a large buffer stock insulating against any agricultural crisis. By the 1990's India had attained self sufficiency in food grain production, because the rate of increase in food grain production has kept pace with the increase in population. This is the direct result of Green Revolution, improved seeds and fertilizers, better irrigation and increased awareness among the farmers.

Thus, we have discussed in the above that the growth in food-grain production is a result of concentrated efforts to increase all the Green Revolution inputs needed for higher yields: better seed, more fertilizer, improved irrigation, and education of farmers. Although increased irrigation has helped to lessen the year-to-year fluctuations in farm production resulting from the uncertainities of the monsoons, it has not eliminated those fluctuations. In the following section we shall make a critical analysis on the impact of green revolution in the country.



CHECK YOUR PROGRESS

Q 8: Mention the three basic elements of green revolution in India. (Answer in about 30 words)

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Q 9: State whether True (T) or False (F).

(a) The concept of green revolution is confined to India only.(T/F)

(b) In spite of the introduction of the green revolution, India has not been able to attain self sufficiency in food production.(T/F)

4.7 IMPACT OF GREEN REVOLUTION

4.7.1 Achievements of the Green Revolution

The following achievements are important.

- **Boost to the production of cereals:** The major achievement of the new strategy is the increase in the production of major cereals like wheat and rice.
- **Increase in the production of commercial crops:** The green revolution was mainly directed to increase the production of foodgrains. It did not affect the production of commercial crops or cash crops such as sugarcane, cotton, Jute, oil seeds and potatoes. However, significant improvement in the output of sugarcane took place after 1973-74. Likewise, there was considerable improvement in the production of other cash crops such as oil seeds, potatoes etc.
- **Significant changes in the crop pattern:** As a result of the green revolution, the crop pattern in India has undergone significant changes. The output of cereals has risen at the rate of 3 percent to 4 percent per annum but the output of pulses has remained stagnant or even declined .This has resulted in a decline in the importance of pulses as foodgrains and its output has fallen from 16 percent in 1960-61 to 6 percent 2006-07.
- **Boost to agricultural production and employment:** The successful adoption of the new agricultural technology has led to a continuous expansion in the area under crops, increase in total production and rising agricultural productivity. Impressive results have been achieved in wheat, rice, maize, potatoes etc.

The adoption of new technology has given a boost to agricultural employment because of diverse job opportunities created by multiple cropping.

- **Forward and backward linkages strengthened:** The new technology and modernisation of agriculture has strengthened the linkages between industry and agriculture. Various agro food processing units have been set up in many areas of the country.

4.7.2 Limitations of the Green Revolution

- Even today, India's agricultural output sometimes falls short of the demand. The Green Revolution, howsoever impressive, has thus not succeeded in making India totally and permanently self-sufficient in food. In 1979 and 1987, India faced severe drought conditions due to poor monsoon; this raised questions whether the Green Revolution was really a long-term achievement. In 1998, India had to import onions. Again, in recent years, it had to import sugar as well.
- Nothing like the ***Bengal Famine*** can happen in India again. But it is disturbing to note that even today, there are places like Kalahandi (in India's eastern state of Orissa) where famine-like conditions have been existing for many years and where some starvation deaths have also been reported.
- Farmers with 20 acres or more land have made the greatest gains partly by mechanising farm operations and partly by diversifying their cropping pattern. Again, the impact of mechanisation of farming has led to the problem of displacement of Labour.
- About 75 percent to 90 percent of the farmers in the rice belt have experienced a relative decline in their economic position.
- The term 'high yielding varieties' is a wrong name or word, because it implies that the new seeds are high yielding of themselves but actually they are highly responsive to certain key

inputs such as fertilizers and water. The new seeds performed worse than the indigenous varieties. Increasing the nitrogen uptake of plants by using artifical fertilizers upsets their carbon/ nitrogen balance causing matabolic problems to which the plant reacts by taking up extra water.

- Because of their narrow genetic base, HYVs are inherently vulnerable to major pests and disease. The Central Rice Research Institute of Cuttack has found out that the 'high yielding varieties' are susceptible to major pests with a crop loss of 30 percent to 100 percent. The Green Revolution in India cannot therefore be considered to be a 100 percent success story.



CHECK YOUR PROGRESS

Q 10: Do you think that high yielding varieties are very suitable for India? Justify your point. (Answer in about 50 words)

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Q 11: State whether True (T) or False (F).

(a) Green revolution in India is a case of 100 percent success. (T/F)

(b) In spite of the introduction of the green revolution, India has not been able to attain self sufficiency in food production. (T/F)



4.8 LET US SUM UP

- Agriculture is the backbone of the Indian economy. Agriculture in India has a long history dating back to ten thousand years. Today, India ranks second in the world in farm output.

- Agriculture and allied sectors like forestry and logging accounted for 16.6 percent of the GDP in 2007 in India.
- Agriculture employed 60 percent of the total workforce in 2007.
- India is the largest producer in the world of milk, cashew nuts, coconuts, tea, ginger, turmeric and black pepper.
- The importance of food processing industries is being recognized for the generation of income and employment.
- Agriculture Planning in India is a very important tool to enhance and maximize the total agriculture based produce.
- Growth in the Indian Agriculture is based on resources being used efficiently and conservation of natural resources.
- From the third plan onwards, the greatest emphasis was laid on irrigation, fertilisers and seed technology which led to the green revolution.
- The planning commission has fixed the target of 4 percent rate of growth to be achieved in agriculture during the eleventh plan.
- Since 1966, the use of modern agricultural inputs has increased at a compound rate of 10 percent per annum.
- The new technology and modernisation of agriculture has strengthened the linkages between industry and agriculture. The new agricultural technology has made the farmer market oriented.
- The term "Green Revolution" is a general one that is applied to successful agricultural experiments in many Third World countries.
- In today's globalised economic scenario, 100 percent self-sufficiency is not considered as vital a target as it was when the world political climate was more dangerous due to the Cold War.



4.9 FURTHER READING

1) Agrawal, A. N. (2019). *Indian Economy: Developmental Problems and Policies.* New Delhi: New Age International Publishers.
2) Datt, G and Mahajan, A. (2016). *Datt & Sundharam's Indian Economy.* New Delhi: S. Chand & Co.

3) Kapila, U. (2003). *Indian Economy since Independence.* New Delhi: Academic Foundation.

4) Misra, S.K. & Puri, V.K. (2018). *Indian Economy.* New Delhi: Himalya Publishing House.

4.10 ANSWERS TO CHECK YOUR PROGRESS

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

Ans to Q No 2: It is true that the condition of the rural cultivators in India has turned worse over the years. This is evident from the fact that the proportion of agricultural labourers has increased from 20 per cent to 27 per cent between 1951 and 2001 but that of cultivators registered a decline from 50 percent to 32 percent. This shows clearly the growing pauperisation of the rural peasantry of the country.

Ans to Q No 3: The major factors for such success of agriculture were: increase in the net areas sown, expansion of irrigation facilities, land reforms specially consolidation of land holdings.

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

Ans to Q No 5: Industrialization, deforestation, encroachment of wetlands, grasslands have affected the annual rainfall and availability of water. These are bound to affect the land use system as well. Redistribution of rainfall and surface water will also adversely affect the biodiversity, productivity of both the terrestrial and aquatic eco-systems.

Ans to Q No 6: The apex body for education, research and extension education in the field of agriculture is the Indian Council of Agricultural Research (ICAR. India's transformation from a food deficit to a food surplus country is largely due to ICAR's smooth and rapid transfer of farm technology from the laboratory to the land.

Ans to Q No 7: (a) False (b) True

Ans to Q No 8: The three basic elements in the method of the green revolution in India are:

- Continued expansion of farming areas;

- Double-cropping in existing farmland; and
- Using seeds with improved genetics.

Ans to Q No 9: (a) False (b) False

Ans to Q No 10: Because of their narrow genetic base, HYVs are inherently vulnerable to major pests and disease. The Central Rice Research Institute of Cuttack has found out that the 'high yielding varieties' are susceptible to major pests with a crop loss of 30 percent to 100 percent.

Ans to Q No 11: (a) False (b) False



4.11 MODEL QUESTIONS

Short Questions (Answer each question in about 150 words)

Q 1: Write a short note on the growth of agriculture in India since independence.

Q 2: Discuss briefly the present status of productivity of Indian agriculture.

Q 3: Trace the major achievements of the new agricultural strategy in India.

Q 4: Enumerate the weaknesses of the new strategy of agriculture in India.

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

Q 1: Discuss the role of Agriculture in Indian Economy.

Q 2: Write an essay on the trends of agricultural production and productivity.

Q 3: Explain the major impediments to Indian agriculture.

Q 4: What is meant by the new agricultural strategy in the context of India? Discuss the new agricultural strategies and their impact on Indian agriculture.

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UNIT 5: AGRICULTURAL FINANCE, RURAL CREDIT AND AGRICULTURAL MARKETING

UNIT STRUCTURE

5.1 Learning Objectives

5.2 Introduction

5.3 Need for Agricultural Finance

5.4 Sources of Agricultural Finance

5.4.1 Role of Co-operatives and Commercial Banks

5.4.2 Role of Regional Rural Banks (RRBs) and NABARD

5.5 Agricultural Marketing: Concept and Limitations

5.6 Role of Government in promoting Agricultural Marketing

5.7 Let Us Sum Up

5.8 Further Reading

5.9 Answers to Check Your Progress

5.10 Model Questions

5.1 LEARNING OBJECTIVES

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

- derive the meaning of agricultural finance
- describe the need for agricultural finance
- trace the source of agricultural finance
- explain the role of co-operative, commercial banks and RRBs including NABARD
- put forward the meaning of agricultural marketing
- discuss the concept and basic requirement of agricultural marketing
- point out the limitations of agricultural marketing
- deliberate on the role of the Government in facilitating agricultural marketing.

5.2 INTRODUCTION

Agriculture is in the unorganized sector and its success and failure

depend to a large extent on climatic factors. The modernization of this sector (such that farmers have to depend less on climatic factors) needs financial support. The returns of investment from this sector are less compared to the returns from the industrial sector. Again, there is the difficulty in distinguishing between productive and unproductive loans of the farmers. Hence, the banks or the financial institutions did not have interest earlier in advancing loans to agriculture and allied activities for a long time. Therefore the farmers were forced to depend on money lenders and mahajans. This leads the farmers towards a debt trap, and they could not come out easily from such debt traps. Ultimately, they have to lose their lands to the money lenders. To save the farmers from such situation, it is urgently required to finance the farmers through different institutional sources, such as credit societies, commercial banks and rural banks. Governments have taken a number of steps to make institutional funds available to this sector. For example, a number of Regional Rural Banks (RRBs) were established for this purpose. Similarly, the Reserve Bank of India set up National Bank for Agriculture and Rural Development (NABARD) to help the agricultural and development activities in the rural areas of the country.

Apart from non-availability of funds, marketing of the agricultural produce at the right market price is another problem. Rural farmers often have to sell out their produce to brokers or middle men at a much less price than the actual market price. Thus, provision of the linkage between the farmers and the market is also another important issue to be tackled. This unit deliberates on the issues of agricultural finance and agricultural marketing. The need for agricultural finance, various sources of agricultural finance, role played by the co-operatives, commercial banks and regional rural banks, especially, the roles played by NABARD has been discussed in the unit. Apart from this, the meaning of agricultural marketing, its basic requirement, major limitations of agricultural marketing and the role played by the government in promoting agricultural marketing have been explained in this unit. Let's begin with the need for agricultural finance.The tenure system of the country identifies the ownership of the land and the relation of

the owner of the land with the cultivator and the government. It is concerned with the cultivator and the government. It is concerned with the rules and regulations, the terms and conditions under which the cultivator cultivates the land.

5.3 NEED FOR AGRICULTURAL FINANCE

Agricultural finance can be discussed under two major categories.

- On the basis of time, agricultural finance can be short, medium and long term.
  - Short term loans are required for the purchase of seeds, fertilizers, pesticides, feeds and fodder of live stock, marketing of agricultural produce, payment of wages of hired labor and a variety of consumption and unproductive purposes The period of such loans are less then 15 months.
  - Medium term loans are generally needed for the purchase of cattle, small agricultural implements, repair and construction of wells etc. The period of such loan or credit extends from 15 months to 5 years.
  - Long term loans are required for permanent improvements on land, digging tube wells, purchase of larger agricultural implements and machinery like tractors, harvestors etc. and repayment of old debts. The period of such loans extends beyond 5 years.
- On the basis of purpose, the needs for agricultural finance can be classified as productive, consumption needs and unproductive.
  - **Productive needs:** Under productive needs are included all credit requirements which directly affect agricultural productivity. To increase agricultural productivity farmers need loans to purchase seeds, fertilizers manures agricultural implements, livestock, digging and repair of wells and tube wells, payment of wages permanent improvements on land, marketing of agricultural produce etc.
  - **Consumption needs:** often farmers need loans for consumption purposes also. This happens in the period between marketing of agricultural produce and the harvesting of next crops, in which there

is a long interval of time and most of the farmers do not have sufficient income to sustain them through this period. Again, if natural calamities e,g. drought, flood etc. occur, the crop is damaged and the farmers have to take loans for consumption purposes.

- **Unproductive purposes:** Farmers also require loans for some unproductive purposes, such as litigation, performance of marriages, social ceremonies or the birth or death of a family member, religious functions, festivals etc. Since institutional agencies do not grant credit for such unproductive purposes, farmers have to seek assistance from money lenders and mahajans.



CHECK YOUR PROGRESS

Q 1: Mr. R Majumdar, a farmer from Lakhimpur has taken a loan of Rs. 50,000 from NABARD to purchase some minor agricultural implements. He has to pay back the loan with interest within a period of 4 years. Will you consider this loan as long-term? Justify your answer. (Answer in about 60 words)

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Q 2: When and why are the loans raised for consumption purposes? (Answer in about 50 words)

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5.4 SOURCES OF AGRICULTURAL FINANCE

Sources of agricultural finance can be divided into two categories: non-institutional and institutional sources.

- **Non-institutional Sources :** The non-institutional sources are: a) moneylenders, b) relatives c) traders d) Commission agents and e) Landlords.

  At the time of independence, the most important source of agricultural credit was the money lenders. In 1951 money lenders accounted for as much as 71.6 percent of rural credit. The reason was that there was no other source and the farmers were forced to borrow for them. This total dependence of the farmers on the money lenders enabled the money lenders to dictate terms and exploit the farmers in a number of ways. Therefore, the government has undertaken various steps to regulate the activities of the money lenders. For this purpose various legislations were enacted. The basic objectives of these legislations were:

  - To bring about an improvement in the terms on which private credit was made available to the farmers and place legal restrictions on the unreasonable exploitations of the moneylenders
  - To enable the civil courts to do greater justice to both the lenders and the borrowers than was possible under the ordinary code of civil procedure, two sets of provisions were made in this regard. The first set of provisions included: a) licensing or registration of the money lenders b) fixation of maximum rates of interest and c) maintenance of accounts by money lenders etc. The second set of provisions included the empowerment of the court by execution of decrees or to direct the payment in installment basis.

- **Institutional Sources of Agricultural Finance:** The major institutional sources of agricultural finance in our country include: the co-operatives, commercial banks, regional rural banks and the NABARD. We shall discuss the role played by the Regional Rural Banks (RRBs) and NABARD in the next section. In this section we shall discuss the role

played by the co-operatives and the commercial banks.

5.4.1 Role of Co-operatives and Commercial Banks

Role of the co-operatives: The first institutions established and promoted to offer agricultural credit were the institutions of co-operative credit societies. Although the co-operative movement in the country was started as early as 1904, its development was very slow. In 1951 co-operatives provided only 3.1 percent of the total rural credit. Hence, the dominance of money lenders in agricultural credit continued. However, there has been massive expansion of its operations afterwards. The co-operatives provided 15.5 percent of the total credit in 1961-62 and 22.7 percent in 1970-71. In 1992-93, the rural credit provided by the co-operatives was 53.4 percent. However, thereafter, though the amount of rural credit provided by the co-operative increased, their percentage of share in total institutional credit declined. In 2017, co-operative provided only 15 per cent of the total institutional credit to agriculture in that year.

Thus, in the post-independence period, there has been an extensive expansion both in terms of coverage and volume of operations of these co-operatives. The performance of these co-operatives in the advancement of loans is also commendable. Even when the entry of commercial banks into the rural credit system was recommended, it was stated clearly that this should be done to supplement and not supplant the co-operative credit structure. However, large accumulated losses, persistent non-performing assets, low recovery levels and various other types of organizational weaknesses caused serious problems to these co-operatives. In fact, many co-operative institutions have continued to make losses over the years.

Role of Commercial Banks : Earlier, the share of commercial banks in rural credit was very small. It was only 0.9 percent in 1951-52 and 0.7 percent in 1961-62. The reason was that subsistence nature of agriculture and its unorganized individualistic

functioning. As against the organized industrial sector, this sector is uncertain in the sense that it is dependent on natural factors. Consequently, to offer credit, commercial banks rated more on the industrial sector than the agricultural sector.

However, after the nationalisation of 20 commercial banks in 1969, there has been much improvement in the state of affairs. The banks have increased their branches in rural areas and have increased their advances in these areas considerably. In 1969, out of total branches of the commercial banks, only 22.2 percent was in rural areas. This has increased to 79 percent in 2017. This shows that total number of branches of commercial banks has been increasing considerably. Similarly, the advances from the public sector banks to the agriculture have also grown. In 1969, the advances to agriculture aggregated to Rs. 164 crore only but in 2009 this had risen to Rs. 3,09,500 crore, which further increased to Rs.17,03,315 cr. in 2022.

Thus, we can say that after nationalization, the commercial banks have played an important role in providing rural credit. This has enabled farmers to purchase agricultural inputs and adopt new agricultural technology on an increasing scale. This has also resulted in the expansion of activities in the non-farm sector in rural areas, and thus also accelerating the pace of private agricultural investment. It therefore follows that expansion of banking facilites has played a pivotal role in India's agricultural growth and modernisation of the sector. In addition, large number of rural people has been able to become free from the clutches of the money lenders.

Weaknesses : Despite the achievements of the commercial banks in the field of rural credit their performance and operations have a lot of limitations. These are:

- Rapid expansion of the bank branches compromises the quality of scheme preparation, particularly the anti-poverty programmes.
- Shortage of staff has led to the deterioration in the quality of landing due to heavy workload on them. The staffs in rural

branches in commercial banks lack sufficient motivation to work in rural areas for various reasons. Supervision of rural advances has come to be neglected.

- Opening of a large number of branches in rural areas which do not have adequate business potential, results in the rise of establishment expenses, and increase in non-performing advances. This has affected the profitability of the banks adversely.
- The recovery position of the commercial banks is very bad.
- The credit-deposit ratio is an important indicator of the degree of involvement of banks in lending. However the rural credit ratio has declined as for example; from 1.58 percent in 1991 to 0.73 percent in 2001 which shows that deposits mobilized from rural India are being utilized elsewhere. In other words, the rural India is financing the other sectors of the economy.
- The commercial banks have failed to fill the geographical gap in the availability of credit not covered by the co-operatives.
- There is lack of co-ordination between one commercial bank and another, and also between commercial banks and the co-operative credit structure on the one hand, and the government department on the other. Even the lead Bank scheme for each district is not able to cover the entire system.



CHECK YOUR PROGRESS

Q 3: What are the main sources of agricultural finance? (Answer in about 50 words)

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Q 4: State the role of co-operatives in providing agricultural credit. (Answer in about 50 words)

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Q 5: The rural India is financing the other sectors of the economy. Do you agree with this statement? Justify your view. (Answer in about 60 words)

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5.4.2 Role of Regional Rural Banks (RRBs) and NABARD

Role of the Regional Rural Banks (RRBs) : The regional rural banks came into existence since 1975 as per the recommendation of the Working Group on Rural Banks (1975) to supplement the efforts of the commercial banks and the co-operatives. Initially in 1975, 5 RRBs were formed. These banks were formed as joint ventures of the Central Government, the State Government in which the bank operated and the concerned commercial bank which sponsored the RRB. The Central Government provided 50 percent of the total capital; the concerned State Government provided 15 percent, while the remaining share of 35 percent was provided by the sponsoring bank.

The objectives of establishment of RRBs are :

- To extend credit to weaker sections of the rural community, small and marginal farmers, landless labours, artisans and other

residents of small means.

- To be an institutional device in consonance with the cooperatives and commercial banks with modern outlook and to reach out the rural poor more extensively.
- To act as low cost, low profile credit institution which the rural poor could walk in.
- The staff of the RRBs was to be recruited from the neighboring areas, such that they have better understanding of the needs of the area and its people.

Growth of RRBs : From the initial number of 5 in 1975, 196 RRBs were set up by 1990 across India. In 2005-06, RRBs provided Rs.15,223 crore as agricultural credit. This was 8.5 percent of the total institutional credit to the sector in that year. Keeping in view the limited success, Government of India in September 2005 initiated the process of amalgamation of the RRBs. The main argument put forward was that such amalgamation would help in consolidation and strengthening of the RRBs. Till August 2006, such amalgamation have reduced the number of RRBs from 196 in 2005 to 104. As on 31st March 2023, there were 43 RRBs in India sponsored by 12 commercial banks. The total number of branches stood at 21,995 with operations extending to 30.53 crore deposit accounts and 2.90 crore loan accounts in 26 States and 3 Union Territories (Puducherry, Jammu & Kashmir and Ladakh). (Source: NABARD).

Weaknesses : In spite of the growth, the RRBs failed to record impressive results. The main problems faced by the RRBs are:

- There is a multi agency control of RRBs. This contributed to a lack of uniformity in their functioning. It has resulted in lack of support from state governments and lack of proper monitoring by sponsoring banks.
- Recovery position of RRBs is very bad; thus, its overdues are very high. The high incidence of overdues is attributable to a number of internal as well as external factors like defective loan policies, weak monitoring and supervision, failure to link lending

with development and to ensure proper end use of the loan are some of the internal factors. External factors included political interference, willful default, bad effects of draughts and floods on agriculture, lack of legal and administrative support from the state government in the matter of loan recovery etc.

- The RRBs are so structured as to confine their lending to weaker sections, where the interest earned as loans is the lowest in the banking system. Low margins coupled with high cost of servicing in a large number of small accounts added to the losses. Again, opening of RRB branches year after year added to increased overhead costs, without proportionate increase in income. All these factors led to mounting losses, ultimately leading to non-viability in operation.
- Since the RRBs are district level small institution, the sponsoring banks have been deputing only middle management staff to run them. Such staff finds it difficult to take independent decisions in a new environment.

Role of National Bank for Agriculture and Rural Development (NABARD) : The most important development in the field of rural agricultural credit has been the setting up of the National Bank for Agriculture and Rural Development (NABARD) in July 1982. It took over from Reserve Bank of India all the functions that it performed in the field of rural and agricultural credit.

NABARD was set up with an authorized capital of Rs.500 crore and paid up capital of Rs.100 crore. The share of the Government of India and the RBI is equal, i.e., 50:50. In 1999-2000, the paid up capital was raised to Rs.2000 crore. NABARD also receives funds from the World Bank and the International Development Agency (IDA).

Functions of NABARD : NABARD was established as a development bank to perform the following functions:

- To serve as an apex financing agency for the institutions providing investment and production credit for promoting various

developmental activities in rural areas.

- To co-ordinate the rural financing activities of all institutions engaged in developmental works at the field level and liaison with the government of India, the State Governments, the Reserve Bank of India and other national level institutions concerned with policy formulation.
- To undertake monitoring and evaluation of projects refinanced by it.
- To take measures towards institution building for improving absorptive capacity of credit delivery system including monitoring, restricting of credit institutions and training of personnel.

NABARD'S role in the agriculture sector: The roles played by the NABARD in the agricultural sector are as follows:

- NABARD provides short term credit facilities to state co-operative bank for financing seasonal agricultural operations marketing of crops pisciculture activities, production, procurement and marketing activities of the co-operative weaver's societies purchase and sale of yarn by apex regional societies, purchase and distribution of fertilizers and allied activities and marketing activities.
- Medium term facilities are provided to state co-operative banks and Regional Rural Banks for converting short term loans for financing seasonal agricultural operations to medium term loans and for approved agricultural purposes.
- Long term loans are provided to state government for contributing to share capital of co-operative credit institutions.
- NABARD refinances to state co-operative agriculture and rural development banks, state co-operative bank, regional rural banks, commercial banks and other financial institutions approved by the Reserve bank while ultimate beneficiaries of investment credit can be individuals' partnership concerns, companies, state owned corporation or co-operative societies. Production credit is generally provided to the individuals.

- NABARD has played a key role in the development and promotion of Self Help Groups (SHGs) and other micro finance institutions and in providing refinance at special rates. SHG-bank linkage programme has emerged as a major micro-finance initiative to reach out the doorsteps of millions of very poor household.
- The Kissan Credit Cards (KCC) scheme was introduced in 1998-99 to facilitate short term credit to farmer, commercial bank, co-operative banks and RRBs are implementing this scheme. Each farmer is provided with a Kissan credit card and a pass book for providing revolving cash credit facilities. NABARD has accelerated the pace of some of KCCS.
- NABARD has issued operational instructions to RRBs and co-operative banks with regard to implementation of Swarnajayanti Gram Swarozgar Yojna (SGSY) on similar line as was issued by the Reserve Bank for commercial banks. Policy guidelines for refinance support to SGSY were also issued to all financing banks.
- NABARD set up the co-operative Development Fund (CDF) in 1993 with the objective of strengthening the co-operative credit institutions in the area of organizational structure, human resource development, resource mobilization, recovery position etc. The assistance is provided to state co-operative banks, state co-operative agriculture and rural development banks, by way of a grant of a soft loan or both.
- NABARD is the supervisory authority for state co-operative Banks, and certain other state level co-operative institutions. Accordingly, NABARD undertakes periodic on-site and off site inspection of these organizations.
- The three main functions of NABARD are refinancing, institutional development and inspection of client banks.



CHECK YOUR PROGRESS

Q 6: When and how were the RRBs formed? (Answer in about 50 words)

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Q 7: NABARD was set up by the SBI and Govt. of India. (True / False)

Q 8: Why and to whom are the long term loans offered by NABARD. (Answer in about 30 words)

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5.5 AGRICULTURAL MARKETING : CONCEPTS AND LIMITATIONS

The Concept of Agricultural Marketing : The marketing of agricultural produce involves several activities such as collecting and storage of agricultural produce, their gradation, settlement of bargains of prices and quantities etc. In facilitating the sale and purchase of agricultural products, an effective agricultural marketing system provides a number of valuable services to an economy. These include:

- A proper marketing system is essential for healthy functioning of an economy. The existence of a good marketing system is an assurance to the farmer that his produce will be taken off the field. Such a system will indicate to the farmers the type of goods for which demand exists and the quantities in which these goods are needed. This will help in an optimum use of land.
- A well designed marketing set-up will help the farmers immensely in the sense that they will get the highest possible price for their produce. They will be induced to produce those goods and in that quantities, which

bring to them the maximum revenue.

- A good marketing system properly aligns the agricultural prices with those of non agricultural prices which is the major contributor of GDP of the Indian economy as a proper marketing arrangement can organize surpluses from this sector and these are required to be used in the non-agricultural sector, e.g., to feed the industrial labor and urban population. This can provide raw materials for industries and goods for exports.
- Agricultural marketing can be designed in such a way that it helps in maximising the rate of growth of the agricultural sector. In this framework, it can offer attractive and profitable opportunities to produce a variety of products.

Limitations of Agricultural Marketing : Although there are many advantages and need for agricultural marketing, limitations are also manifold. Important ones are:

- Inadequacy of warehousing facilities and possibility of products being damaged, the farmer's capacity to store the produce for a longer period is reduced. In the worst possible case, the farmers are keen on disposing it and they do not get fair price and make the best of the market opportunity. The country suffers because of the reduction in supply.
- Poor transport facilities such as poor road, rail and water transport cause farmers a lot of difficulties in carrying the produce from fields to their homes and from villages to markets. Apart from inadequate transport, the country also suffers from the shortage of fast moving vehicles. This hinders the quick movement of a large quantum of produce and perishable goods to the market. As a consequence, the cost of carriage of goods increases and a part of the produce is spoilt on the way. Farmers also fail to get a good market price for their produce.
- An inadequate facility of credit, especially to fulfil the need of credit between the harvesting period and the time it is sold out is another limitation of agricultural marketing and finance. This adversely affects the holding capacity of the farmers; more particularly, the small farmers. The farmers are forced to sell the crop immediately after harvesting. All the farmers bring their supplies together. This causes inundated supply

in the market; and consequently, the farmers do not get fair prices for their produce.

- Another defect of the present marketing system is that agricultural produce of different varieties is not graded properly. Arrangements for the grading and standardization of products are not adequate. As a result, the produce that comes to the market consists of a variety of qualities and grades. This makes difficult to assign prices to these goods as per their qualities. Hence prices, production and quality of the produce bear no relation to one another. As such, farmers find it difficult to secure higher prices for their superior quality products. Thus, the producers do not get incentive for their quality production; on the other hand, the consumers as well do not get satisfaction from such transactions.
- Very often farmers are not supplied with correct information about market price, demand, international trends, Government policies etc. As a result, farmers visit markets occasionally and base their decisions on the information supplied by money lenders, traders, other functionaries and intermediaries. Such information is generally wrong and biased in favor of purchasers and against the interest of the farmer.
- Another weakness of agricultural marketing is that arrangements for institutional marketing are grossly inadequate. The farmers sell their produce separately on individual basis. Against the powerful intermediaries, these farmers possess only very weak bargaining capacity. Consequently, they do not get fair price for their produce. Due to having small number of co-operative marketing societies and inadequate government arrangements to buy agricultural produce, only a few regulated markets are found functioning properly. As a consequence of such deficiencies, farmers are being exploited.



CHECK YOUR PROGRESS

Q 9: What is agricultural marketing? (Answer in about 50 words) .....

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Q 10: How do the transport facilities affect the marketing of agricultural produce? (Answer in about 40 words)

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Q 11: What happens when all the farmers bring their produce for sale in the market just after harvesting? (Answer in about 50 words)

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5.6 ROLE OF GOVERNMENT IN PROMOTING AGRICULTURAL MARKETING

After independence, the Government of India adopted a number of measures to improve the system of agricultural marketing. These are: establishment of regulated markets, construction of warehouses, provision for grading and standardisation of agricultural produce, standardization of weights and measures, daily broadcasting of market prices of agricultural crops on all India Radio, improvement of transport facilities etc. Now, we shall discuss them in brief.

- Regulated markets have been organized with a view to protect the farmers from the malpractices of sellers and brokers. The management of such markets is done by a marketing committee, consisting of nominees from the state government, local bodies, brokers and farmers. The functions performed by the committee are: a) fixation of charges for weighing, brokerage etc., b) prevention of unauthorized deductions

by intermediaries, c) enforcing the standardized weight, d) providing up-to-date and reliable market information to the farmers and e) settlement of disputes among the parties arising out of market operations.

- For the improvement of agricultural marketing, gradation and standardization are essential. To address these issues, government passed the Agricultural Produce (Grading and Marketing) Act. This provision presently covers 182 agricultural commodities. Again, the government has also set up a central quality control laboratory at Nagpur and a number of regional subsidiary quality control laboratories. On the basis of samples, agricultural commodities are collected and chemical properties are tested at laboratories. Thereafter, grades are drawn up and authorized AGMARK (Agricultural marketing) packets are issued for these commodities.
- The Union Government adopted the Metric system of measures in 1958, by passing an act to this effect in the Parliament. This system replaced the age old system of weights and measures and has introduced a uniform system of measurement in the country.
- It is necessary to provide a network of godown facilities all over the country, so that farmers are not compelled to sell their produce immediately after the harvesting of crops. This will enhance the bargaining power of the farmers and save them from distress sale. To meet this objective, the Rural Credit Survey Committee constituted in 1954 recommended a three tier system of warehousing, viz., a) The national level b) state and district level and c) village and rural level. In accordance with the recommendations, Central Warehousing Corporation was set up in 1957 and this was followed by establishment of state warehousing corporations in a number of states. At the national level, Food Corporation of India (FCI) was set up for the storage of food products. To prevent distress sales, a centrally sponsored scheme for rural godowns was initiated at the village and rural level; so that the small and marginal farmers need not to do so just after the harvesting of the produce at the prevailing low price. After 2001, the government is implementing a central sector scheme for the construction of rural godowns.

- The government announces minimum support prices and procurement prices for various agricultural commodities from time to time in a bid to ensure fair returns to the farmers. These prices are fixed in accordance with the recommendation of the commission for Agricultural costs and prices. Government agencies like the Food Corporation of India purchase agricultural commodities from the farmers at the remunerative prices. These purchases in turn are sold of by the government at reasonable prices through the Public Distribution System (PDS) to the ultimate consumers, especially the below poverty line (BPL) families.
- The government has initiated a number of measures to inform the farmers about the prices prevailing in different markets, e.g., through all India Radio, Doordarshan, news papers etc. Market intelligence reports regarding stocks, current market prices etc are also published periodically. Under a central scheme, a market research and information network has been constituted for speedy collection and dissemination of prices and market related information to farmers.
- The National Institute of Agricultural Marketing was established in 1988. The main aims and objectives of the Institute are: a) to design and conduct training courses to meet the specific needs of the personnel and enterprises, b) to undertake research studies to demonstrate better management techniques in the field of agricultural marketing, c) to offer educational programmer in agricultural marketing for supplementing the existing facilities, d) to provide consultancy services for formulating investment projects and for problem solving advise, and e) to augment the agricultural marketing infrastructure of the country through programmes of teaching, research and consultancy services.
- The Directorate of Marketing and Inspections has been set up by the Govt. of India to co-ordinate the agricultural marketing activities of various agencies and to advise the central and state governments on the problems of agricultural marketing. The activities to be performed by the directorate are: a) promotion of grading and standardization of agricultural and allied commodities, b) statutory regulation of markets

and market practices, c) training of personnel, d) market extension, and e) market research, survey and planning.



CHECK YOUR PROGRESS

Q 12: Which of the following recommended a three tier system of warehousing?

a) Agricultural Produce (Grading and Marketing) Act

b) Food Corporation of India

c) The Rural Credit Survey Committee

d) Directorate of Marketing and Inspections

Q 13: Why was the Directorate of Marketing and Inspections set up by the Govt. of India? Mention any of its two functions. (Answer in about 60 words) .....

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Q 14: Expand the following terms.

a) AGMARK:.....

b) PDS:.....

c) FCI:.....

d) BPL:.....



5.7 LET US SUM UP

- To help the farmers and to increase agricultural productivity in the country, institutional credit is provided by co-operatives, commercial banks, RRBs, NABARD etc. and is treated as agricultural finance.
- The need for agricultural finance is manifold. For example, agricultural finance is needed for production, consumption and even for unproductive purposes.

- Sources of agricultural finance are of two types: a) institutional and b) non-institutional. Sources of Non-institutional are money lenders, relatives, traders, commission agents and landlords. The institutional sources are co-operatives, commercial banks, regional rural banks and NABARD. Out of these, NABARD is the apex institution.
- The role of co-operatives, commercial banks and Regional Rural Banks in providing rural agricultural credit is tremendous, though each of them has some limitations.
- As the apex institution, NABARD plays the supervisory role in the developmental refinancing functional operations in rural and agricultural credit.
- Agricultural marketing is the marketing of agricultural produce which involves collecting and storage of agricultural goods, their gradation, settlement of bargaining etc.
- The requirement of agricultural marketing is manifold. It covers prices, optimum use of land, demand for goods in the market, aligning prices of agriculture to non-agricultural commodities, market set up, growth of agricultural sector etc.
- There are many limitations or weakness in agricultural marketing. These include: inadequate transport, storage facilities, non gradation of agricultural goods, lack of credit facilities, non- availability of market information, non-existent of institutional market, malpractices in the marketing of agricultural goods etc.
- The government has taken a number of measures to improve agricultural marketing in the country. For example, establishment of regulated market, construction of warehouses, provision of grading and standardization of agricultural produce, standardization of weights and measure, dissemination of market information through print and electronic media etc.



5.8 FURTHER READING

1) Agrawal, A. N. (2019). Indian Economy: Developmental Problems

and Policies. New Delhi: New Age International Publishers.

2) Datt, G and Mahajan, A. (2016). Datt & Sundharam's Indian Economy. New Delhi: S. Chand & Co.

3) Misra, S.K. & Puri, V.K. (2018). Indian Economy. New Delhi: Himalya Publishing House.



5.9 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: Majumdar's loan for the purchase of minor agricultural implements can not be termed as long term loans. This is because, long term loans are offered for a period of 5 years or more. Again, such loans are offered to for permanent improvement on land, digging tube wells, purchase of larger agricultural implements and machinery like tractors, harvestors etc. and repayment of old debts, etc.

Ans to Q No 2: Loans for consumption purposes are raised to meet the need for credit during the period between marketing of agricultural produce and the harvesting of next crops. Again, if natural calamities e,g. drought, flood etc. occur, the crop is damaged and the farmers have to take loans for consumption purposes.

Ans to Q No 3: Sources of agricultural finance can be divided into two categories: non-institutional and institutional sources. The non-institutional sources are: a) moneylenders, b) relatives c) traders d) Commission agents and e) Landlords. On the other hand, institutional Sources of Agricultural Finance include: the co-operatives, commercial banks, regional rural banks and the NABARD.

Ans to Q No 4: After independence, the first institutions established and promoted to offer agricultural credit were the institutions of co-operative credit societies. In 1951 co-operatives provided only 3.1 percent of the total rural credit. In 1992-93, the rural credit provided by the co-operatives was 53.4 percent. However, thereafter, though the amount of rural credit provided by the co-operative increased, their percentage of share in total institutional credit declined.

Ans to Q No 5: It is rightly said that the rural India is financing the other sectors of the economy. This can be substantiated from that the fact the rural credit-deposit ratio has declined over the years. The ratio which was 1.58 percent in 1991 has declined to 0.73 percent in 2001. This clearly shows that deposits mobilized from rural India are being utilized else were.

Ans to Q No 6: The regional rural banks were formed in 1975. These banks were formed as joint ventures of the Central Government, the State Government in which the bank operated and the concerned commercial bank which sponsored the RRB. The Central Government provided 50 percent of the total capital; the concerned State Government provided 15 percent, while the remaining share of 35 percent was provided by the sponsoring bank.

Ans to Q No 7: False.

Ans to Q No 8: NABARD offers long term loans to the state governments. The basic purpose of such loans is to enable the state governments to contribute to the share capital of co-operative credit institutions of the state.

Ans to Q No 9: Agricultural marketing involves several activities such as collecting and storage of agricultural produce, their gradation, settlement of bargains of prices and quantities etc. In facilitating the sale and purchase of agricultural products, an effective agricultural marketing system provides a number of valuable services to an economy.

Ans to Q No 10: Poor transport facilities such as poor road, rail and water transport cause farmers a lot of difficulties in carrying the produce from fields to their homes and from villages to markets. As a consequence, the cost of carriage of goods increases and a part of the produce is spoilt on the way. Farmers also fail to get a good market price for their produce.

Ans to Q No 11: Owing to lack of storage facilities, the farmers are forced to sell the crop immediately after harvesting. All the farmers bring their supplies together. This causes inundated supply in the market; and consequently, the farmers do not get fair prices for their produce.

Ans to Q No 12: c) The Rural Credit Survey Committee

Ans to Q No 13: The Directorate of Marketing and Inspections was set up by the Govt. of India to co-ordinate the agricultural marketing activities of various agencies and to advise the central and state governments on the problems of agricultural marketing. Two important functions performed by the directorate are: a) promotion of grading and standardization of agricultural and allied commodities, and b) market research, survey and planning.

Ans to Q No 14: a) AGMARK : Agricultural Marketing.
b) PDS: Public Distribution System.
c) FCI: Food Corporation of India.
d) BPL: Below Poverty Line.



5.10 MODEL QUESTIONS

Short Questions (Answer each question in about 150 words)

Q 1: State the role of NABARD in providing rural agricultural credit.

Q 2: Discuss the main functions of NABARD.

Q 3: Write a short note on the role Regional Rural Banks in providing rural agricultural credit.

Q 4: Briefly discuss agricultural marketing. What are the problems cropped up in the agricultural marketing?

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

Q 1: Discuss the sources of agricultural finance. Enumerate the role of NABARD in providing rural agricultural credit.

Q 2: Write an essay on the roles of Regional Rural Banks and NABARD in providing rural agricultural credit.

Q 3: What is agricultural marketing? What are its major problems? Explain the measures adopted by the government to solve the problems of agricultural marketing.

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UNIT 6: FOOD SECURITY AND PUBLIC DISTRIBUTION SYSTEM IN INDIA

UNIT STRUCTURE

6.1 Learning Objectives

6.2 Introduction

6.3 Concept of Food Security

6.3.1 Prevalance of Malnutrition and Hunger

6.3.2 Dimensions of Food Security

6.4 Public Distribution System (PDS)

6.5 Food Security Act, 2013

6.6 Impact of PDS on Poverty

6.6.1 Food Subsidy under PDS

6.6.2 Incentive to the Farmers through Minimum Suport Price

6.7 Limitations of PDS

6.8 Suggestive Measures

6.9 Let Us Sum Up

6.10 Further Reading

6.11 Answers to Check Your Progress

6.12 Model Questions

6.1 LEARNING OBJECTIVES

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

- derive the meaning and concept of food security
- analyse the status and severity of food insecurity, malnutrition and hunger in India
- discuss the working of the largest food safety net.i.e. Public Distribution System (PDS).
- comprehend on the drawbacks and failure of PDS and to find out dynamic strategies for wider coverage and implementation of PDS and
- discuss the recently announced largest PDS reform- NFSA, 2013

and its features that aims to reduce poverty and hunger and to ensure basic right of food for all people for a decent life.

6.2 INTRODUCTION

Indian economy is characterized as a developing economy. Poverty among the people is a basic characteristic of the economy. Eradication of extreme poverty and hunger is a major challenge facing by the Indian economy as well as the global economy. As per estimate of Global Food Security Index, 2016(GFSI,2016) globally 800 million people -just over one in nine people -remain hungry . One third of world's hungry live in India and every year Indians have to die of hunger. The poor and vulnerable groups are unable to consume required meal for nutrious diet and productive life which is a basic need for survival. These group of people remain food insecure and unable to lead an active life . In this unit we will discuss the multidimensional and complex problem of food security and the system (i.e. Public Distribution System) that Government follows to ensure food security to the people.

6.3 CONCEPT OF FOOD SECURITY

Consumption of enough healthy food is a basic human right. When an individual or group of individuals are unable to consume basic foods for energy and nutrients to maintain a healthy and productive life then they are termed as food insecure. The most acceptable definition of food security was given by World Food Summit of Food and Agricultural Organization (FAO) held in 1996. FAO states "Food Security exist when all people, at all times have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preference for a healthy and active life " . The group of people who are mainly food insecure belongs to people employed in ill-paid occupations, casual labourers, landless people, petty self-employed, workers and destitute including beggars, the people affected by natural disasters and most importantly the Women and Children.

6.3.1 Prevalence of Malnutrition and Hunger

Hunger and food insecurity affects the living condition of the people by destroying their physical and mental health. Food security cannot be achieved without nutrition security. In general the most widely used indicator of nutrition is dietary energy orintake of calorie per person per day. The National Sample Survey (NSS) use 2700 kcal as standard norm of calorie intake per person per day to be food secure. During 66th round NSS, average dietary energy intake per person per day was 2147 kcal for rural India and 2123 Kcal for urban India, indicates the existence of rural and urban food insecurity in the country.

Food Insecurity results undernourishment and malnutrition among the people. The number of undernourished people is highest in India.

According to FAO estimates in "The State of Food Insecurity in the world ,2015" report 15.2 percent of Indian population is undernourished and 194.6 million people go hungry every day. The problem is more severe among women and children. 48 percent of women between 15 to 49 years of age are anemic whose Body Mass Index(BMI) is less than 18.5. The low health status of women have detrimental effect on child health status. It results low birth weight(<2.5kg) to the child. Low birth weight hampers the proper physical and mental growth of the children and thereby their overall cognitive development.

India is ranked 111th out of 125 countries in Global Hunger Index score of 2023. India experiences a severe level of hunger, scoring 28.7 on the 2023 Global Hunger Index. This represents a significant improvement over its 2008 and 2000 GHI ratings of 35.5 and 38.4, respectively, all of which were deemed concerning, and a minor improvement over its 2015 GHI score of 29.2, which was also deemed problematic. Additionally, India had the most child wasting rate in the report (18.7 percent), along with the highest rates of child

stunting (35.5 percent), undernourishment (16.6 percent), and under-five mortality (3.1 percent) from the study.

LET US KNOW



Chronic Hunger: Inadequate diet for longer time

Seasonal Hunger: When a person unable to get food entire year .

If such calamity happens in a very wide spread area or is stretched over a longer time period, it may cause a situation of starvation.

A massive starvation might take a turn of famine. For example the Bengal famine of 1943-44 was a major famine in the Bengal province in British India during world war II, claiming the lives of at least three and half million people.

6.3.2 Dimensions of Food Security

The prevailing situation of malnutrition and hunger indicates that India is in serious condition of food security. With increasing demand for growing population the problem will become more serious in near future. It is, therefore, necessary to analyse properly the different dimensions of food security so that effective policy can be adopted. Broadly speaking there are four dimensions of food security.

- **Food Availability:** The availability of enough quality food is the key component of food security. It may be through domestic agricultural production or through import. In 1960s, India adopted Green Revolution as an initiative to increase agricultural production and to become self sufficient. Use of High Yielding Variety (HYV) seeds, irrigation, fertiliser and modern technology has increased production of agricultural output, specially wheat and rice. However green revolution results increase agricultural productivity of the states like Punjab, Haryana, Western Uttar Pradesh, Tamil Nadu and Andhra Pradesh. Some states like Bihar, Orissa and North Eastern states were not able to enjoy the

benefits of green revolution. According to UN statistics, with a projected population of 1.43 billion as in April, 2023, India is expected to surpass China as world's most populous country. There is need of more comprehensive strategy and agricultural research to increase quality and quantity of diversified agricultural food so that growing demand can be fulfilled.

- **Food Access:** Another most important dimension of food security is accessibility of food i.e. the purchasing power of the individuals for nutritious food. The income of the individual or the household must be enough to purchase adequate amount of nutritious food. Employment and income generation increases the purchasing power of the individuals. Social and economic empowerment of women is also important for their nutrition and health status as well as of other family members. Economic empowerment of women leads to income generation and thereby increases purchasing power and helps to reduce malnutrition of the children and the family.
- **Utilisation:** Along with adequate quantity and quality of food items, some non-food components like clean drinking water, proper sanitation and health care practices are essential to reach a secured food and nutrition level. Proper utilisation of clean drinking water and sanitation reduces health risk of common diseases like diarrhea, cholera, malaria, fluorosis, arsenicosis , trachoma, intestinal worms, typhoid etc. Better health care practices like exclusive breastfeeding up to six month, timely introduction of complementary foods, minimum dietary diversity, consumption of iron rich complementary foods, Vitamin A supplementation, full vaccination and safe disposal of stool of the child etc. are essential for better utilisation of nutrition intervention.
- **Stability:** All time availability and accessibility of adequate nutritious food is another most important dimension food security. It requires stable food supply and accessibility by the individual

and households. There should not be seasonal food insecurity due to natural calamities like flood, drought, earthquake and economic and cyclical fluctuations like price rise. Stable supply and accessibility of nutritious food controls seasonal hunger and malnutrition. The problem of food security has quantitative as well as qualitative aspects. Availability and accessibility of adequate amount of nutritious food is essential to maintain a desired food security level. To tackle both qualitative and quantitative aspects, the Government of India has relied on the following three food based safety nets:

a. Public Distribution System (PDS)

b. Integrated Child Development Services (ICDS) and

c. Mid -Day Meals(MDM) Programme

PDS is the largest network initiated by the government and have remarkable impact on poverty although lot of debates going on over the years. Moreover, the employment generation programmes has been initiated by the Government of India to increase the purchasing power of the individuals.



CHECK YOUR PROGRESS

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

i) Food Security is a basic human right. (T/F)

ii) Food security can be achieved without nutrition security. (T/F)

iii) Green Revolution is an initiative to increase agricultural production.(T/F)

Q 2: Who are mainly Food Insecure? (Answer in about 40 words).

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Q 3: Differentiate Seasonal hunger and Chronic Hunger. (Answer in about 50 words)

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6.4 PUBLIC DISTRIBUTION SYSTEM

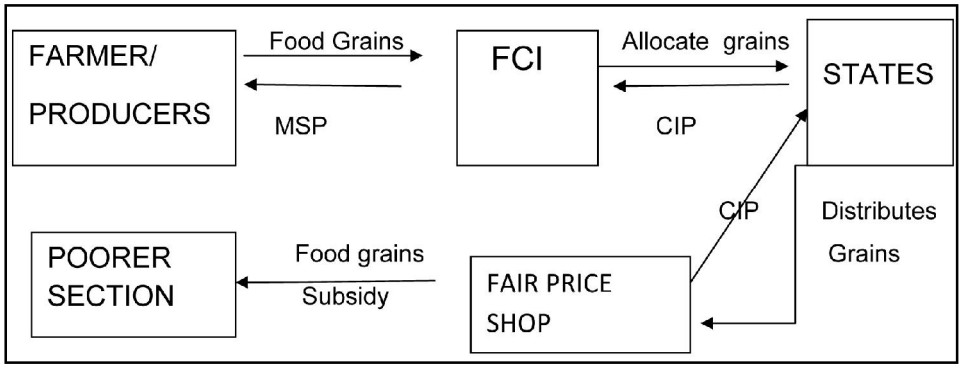
As stated earlier PDS is the largest food based safety net introduced by the Government of India. The basic objective of PDS in India is to provide essential consumer goods to the consumers at cheaper and subsidized prices so that they are able to maintain the minimum standard of food security and nutrition status. The major items distributed under the network of PDS in India have been rice, wheat or Atta, sugar and kerosene. The Food Corporation of India (FCI), established in 1965, is the major agency to run the network of PDS. FCI procures foodgrains from the farmers or producers at Minimum Support Price (MSP).

MSP is fixed by the Govt. of India(before crop sowing) to protect the producers or farmers against excessive fall in price during bumper production years. It is a support to the farmers and producers that their product would be definitely sold out without loss. FCI maintains the ***buffer stock*** of the procured foodgrains at their warehouses. It is the central Issue Price(CPI) at which FCI allocate these food grains to the state governments. State governments hold the responsibility for distributing the same to the consumers through the established network of regulated ration shops or Fair Price Shops (FPSs). State governments are also responsible for operational responsibilities including allocation and identification of families below poverty line, issue of ration cards, supervision and monitoring the functioning of FPSs.

The PDS was a general entitlement scheme till 1992. In June 1992, the Revamped Public Distribution System (RPDS) was launched to strengthen the PDS by emphasizing poorer section of the society living in hilly, remote and inaccessible areas. Special focus was given to the poorer

section of the society with coordination of state governments. Area specific programmes were initiated like Drought Prone Area Programme (DPAP), Integrated Tribal Development Projects (ITDP), Desert Development Programme (DDP) and Programme for certain Designated Hill Areas (DHA).

Figure 6.1: Working of PDS



After five years of RPDS, in June 1997, the Government of India introduced the Targeted Public Distribution System (TPDS) with a view to identify the poor people and to distribute food items in a transparent and accountable manner at the fair price shop level. The beneficiaries categorised as: (a) Below Poverty Line (BPL), and (b) Above Poverty Line (APL).

It is the responsibility of the state government to identify the poor beneficiaries (people falling in BPL category) with the help of Gram Panchayats and Gram Sabha in rural areas and Nagar Palikas in urban areas.

The reforming of PDS was not able to remove the problem of poverty and hunger in the country as the poorest of the poor section of the society sleeps without two square meals a day. In order to make TPDS more focused and targeted towards this section of the society, the Antyodaya Anna Yojana (AAY) was launched in December 2000. The identified Antyodaya families are entitled to 35 kg of rice of food grain per family per month from 1st April 2002.



CHECK YOUR PROGRESS

Q 4: Why was FCI established? When it was established? (Answer in about 30 words).

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Q 5: Define MSP and CIP. (Answer in about 40 words)

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Q 6: What are the different types of ration cards issued under PDS? (Answer in about 30 words)

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6.5 FOOD SECURITY ACT, 2013

As a reform measure of the PDS and to ensure fundamental right of food and nutrition security ,the National Advisory Council (NAC) submitted its proposals on Draft National Food Security Bill in January-February 2011 and it was signed in to a law on September 12,2013. The National Food Security Act (NFSA),2013 aims to "To provide for food and nutritional security in human life cycle approach, by ensuring access to adequate quantity of quality food at affordable prices to people to live a life with dignity". The salient features of NFSA,2013 are as follows -

- **Coverage and Entitlement:** The Act aims to cover up to 70 percent of the rural population and 50 percent of the urban population. Under TPDS, the household will be entitled with 5kg of rice, wheat and coarse grain at Rs. 3,Rs.2 and Rs. 1 respectively per person per month. However, the entitlement of existing AAY households will be protected at 35 kg per household per month. The beneficiaries will be identified by States/UTs based on the criterion set by the central government.
- **Revision of Subsidised Prices:** The price of food grains Under TPDS will remain same for the initial three years of commencement of the Act. Thereafter, the central government will change these prices in relation to Minimum Support Price(MSP).
- **Nutritional Support to Women and Children:** The NFSA,2013 aims

to support health and Nutritional status of women and children through the enhancement of Integrated Child Development Scheme (ICDS) and Mid Day Meal(MDM) Scheme. The local Anganwadi will take the responsibility to provide free meal to the children in the age group of 6 months to 6 years. The students up to class VIII are entitling to free mid -day meal in the government schools. Pregnant and lactating mothers are entitling to free meal at the local Anganwadi during pregnancy and up to 6 months after child birth. They will also be entitled to receive maternity benefit of not less than Rs. 6000.

- **Women Empowerment:** To serve the purpose of women empowerment the Act decides to issue ration card to the eldest woman of the household of age 18 years or above considering her as the head of the household.
- **Grievance Redress Mechanism:** Any grievances regarding the implementation and corruption or manipulation of the Act can be put at the Grievance Redress Mechanism at the District and State levels. States will have the flexibility to use the existing machinery or set up separate mechanism.
- **Transportation cost assistance to States:** Central Government will provide assistance to States in meeting the expenditure incurred by them on transportation of foodgrains within the State, its handling and FPS dealers' margin as per norms to be devised for this purpose.
- **Food Security Allowance:** The concerned state government has to made provision for food security allowance to entitled beneficiaries in case of non-supply of entitled foodgrains or meals.
- **Provision of State Food Commission:** The State Food Commission will monitor and evaluate the implementation of the Act, give advice to the state governments and their agencies and enquire in to violation of entitlements.
- **Penalty:** The State Food Commission will impose penalty on public servant or authority in case of failure to comply with the relief recommended by the District Grievance Redress Officer.

The NFSA,2013 is an important step towards the right to food and to bring it within the framework of legally mandated entitlements.

6.6 IMPACT OF PDS ON POVERTY

6.6.1 Food Subsidy under PDS

The main objective of PDS is to provide essential consumer goods such as rice, wheat, sugar, edible oil and Kerosene at subsidized prices and thereby to maintain a secured food security level. It is an instrument of price stabilization and acts as a force against the exploitation of traders or retailers to acquire more profit through artificial food shortage.

There has been a continuous increase in public expenditure of the government on PDS. Food subsidy as proportion of total government's expenditure, on an average during the period of 2000-01 to 2019-20 was 4.0 percent. The food subsidy component of central government rose from Rs. 650 crores in 1980-81 (at current prices) to Rs. 242834 crore in 2021-22 (Table 6.1).

Table 6.1: Central Government Expenditure on Food Subsidy

Year	Expenditure (In Rs Crores) (At current prices)	Year	Expenditure (In Rs Crores) (At current prices)
1980-81	650	2016-17	134834
1990-91	2450	2017-18	145338
2000-01	12010	2018-19	101327
2005-06	23071	2019-20	108688
2010-11	63844	2020-21*	115570
2015-16	124119	2021-22*	242834

*Budgeted. Source: Datt, G. & Mahajan, A. (2016). *Datt and Sundharam's Indian Economy; PRS Legislative Research, 2021. Union Budget 2021-22 Analysis*

Further, available data also indicate that during the period 2001 to 2020, on an average, annual procurement of food grains was 57.11 million tons, while of this, 40.03 million tons were distributed under the PDS. Thus, food grain distributed under PDS accounted for 19.07 percent of net availability of foodgrains. Data indicates that net availability and procurement have increased

continuously. Distribution of food grain shows that there is more need to focus on the proper distribution so that wastage of the food grain can be avoided and needy people get timely and right quantity of food grains.

6.6.2 Incentive to the Farmers through Minimum Support Price

The poor farmers productions are protected by the government at the beginning of the sowing season by providing minimum support price (MSP) to their produce on the basis of the recommendations of the commission for Agricultural Costs and Prices (CACP). It supports the farmers from distress sales and induce them to make capital investment for the improvement of their farm. MSPs are currently announced for 24 commodities including seven cereals (paddy, wheat, barley, jowar, bajra, maize and ragi); five pulses (gram, arhar/tur, moong, urad and lentil); eight oil seeds, copra, raw jute, raw cotton and Virginia Flu Cured (VFC) tobacco. However the farmers are aware about MSP on wheat and paddy only which is a factor of changing cropping pattern towards these crops only. There is need of more awareness among the farmers about the prevailing MSP for different foodgrains to encourage a more diversified cropping pattern and to maintain nutrition security of the poor. The MSPs for wheat and paddy fixed by the department of Agriculture and Cooperation on the recommendation of the CACP in the recent times since 2013-14 has been shown in Table 6.2.

Table 6.2: MSPs for Wheat and Paddy

Year	MSP on Wheat	MSP for Paddy	
		Common	Grade A
2013-14	1350	1310	1345
2014-15	1400	1360	1400
2015-16	1450	1410	1450
2016-17	1525	1470	1510
2017-18	1625	1550	1590
2018-19	1735	1750	1770
2019-20	1840	1815	1835
2020-21	1925	1868	1888
2021-22	1975	1940	1960
2022-23	2015	2040	2060

Source: Website of Department of Food and Public Distribution; Ministry of Consumer Affairs, Govt. of India

6.7 LIMITATIONS OF PDS

The PDS as a largest food safety net has not been able to attain its objective of eradicating poverty and hunger in the country. The problem of hunger still exist in many areas of India.

- **Unscientific Storage and Wastage:** There are three storage agencies-FCI, Central Warehousing Corporation and State warehousing Corporations. The storage capacity could be either owned by these agencies or be hired from private owners. The grain is stored either in covered godowns, or silos or in uncovered godowns called covered and plinth (CAP). The storage capacity here is the grand total storage capacity of all the three agencies-hired/owned and covered/CAP. Storage capacity with FCI is largest and it is increasing reasonably. But capacity under covered and plinth is increasing faster than covered ones. CAP is unscientific and results quality deterioration, pilferage and theft at substantially higher rate.
- **Insufficient Storage:** The storage capacity of PDS foodgrains is

insufficient also. There is a wide gap between the required and existing storage capacity. The 11th five year plan has identified a gap of 16mt of storage capacity of foodgrains that needed to be created.

- **Excess Buffer Stock:** Under 'open ended procurement' government can't decide quantity it wants to buy. How much ever grains are offered by farmers to government, has to purchase. It results excess stocks than buffer norms which is always undesirable and wasteful. The storage of massive food stock has been responsible for high carrying costs, in addition to wastage and deterioration in grain quality. It also creates shortage of foodgrains in open market and food inflation.
- **Burden of Food Subsidy:** Ever increasing subsidy in PDS foodgrains has put a severe fiscal burden on the government. From Rs.650 crore in 1980-81 ,food subsidy rose to Rs.134834 crore in 2016-17 and further to Rs. 242834 crore in 2021-22. Food subsidy is the difference between the issue price and economic cost. The government has been reducing issue price to supply cheapest food grains to the poor. On the other hand, increasing MSP and storage cost results higher economic cost. The result is the hike in food subsidy and severe fiscal burden on the government.
- **MSP and Cropping Pattern:** Increasing MSP, on the one hand, leads to a burden on the government and on the other hand distorts the cropping pattern of the country. The farmers are more inclined to cultivate rice and wheat due to its increasing MSP. However, the consumption pattern has been changing towards non cereal foods, but no such corresponding growth in production. As a result there is demand supply mismatch and increased market price and higher cost of living of the people.
- **Problem of Identification:** The identification of BPL and APL families are based on income level of the households which is quite difficult to estimate in actual rate due to irregularity of income of the people working in informal and unorganized sectors. The deserving households most of the time excluded and it creates high exclusion errors. Moreover it becomes difficult to distinguish between BPL and AAY families and arise systematic inclusion error. Inclusion of non-poor with PDS ration card

creates high inclusion error.

The process of identification of APL and BPL families are carried out by Gram Panchayats and Gram Sabha. Political pressure and corruption of Gram Panchayats and Gram Sabha aggravates the problem of exclusion and inclusion error. Thus given the problem of conceptual as well as at operational level vulnerable population are unable to grab the benefits of PDS.

- **Malpractices by PDS Dealer:** The malpractices on the part of PDS dealers like diverting the grains to open market to get better margin, selling poor quality grains at ration shops, irregular opening of the shops etc. deteriorating the effective implementation of PDS and thereby unable to solve the problem of food and nutrition security in the country.
- **Lower Incentive to purchase to from PDS Shops:** The price differential between issue prices for APL families and the open market prices had considerably narrowed down. The low income families just above APL have to pay almost equal to open market rates. It lowers their incentives to buy from fair price shops. The average consumption of PDS grain at the all India level is very low. It also declines the profit of the fair price shop owner and creates a question of viability of fair price shops.

6.8 SUGGESTIVE MEASURES

There are lots of structural and implementation problem of PDS, but still it remains the best form of food security for the poor. To make the system more vibrant and effective and for full realization of its potentials, the PDS need reform. Some important reform measures are as follows.

- Identification of beneficiaries should be taken considering "exclusion approach". Instead of identifying the poor, it would be effective to identify the rich who are kept out and the rest are covered. It will increase coverage under rural areas.
- The error of inclusion of non-poor in PDS can be minimized by providing entitlements through employment generation programmes like

Jawahauar Rozgar Yojana (JRY) or Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA).

- The state government should issue food stamps or coupons to the Panchayati Raj Institutions (PRIs) so that they can distribute then to the poor. This would reduce the problem of diversion and leakages.
- Proper estimation of buffer stock requirements and storage capacity of the warehouses is essential to minimize and control the wastage of foodgrains that are to be allocated under PDS.
- Efficient management and regular monitoring can improve the functioning of the fair price shops removing inefficiency and corruption.



6.9 LET US SUM UP

- The government of India has been different measures to ensure the basic right of food security to the people.
- The PDS having lots of drawbacks are unable to ensure food security to the poor.
- The NFSA,2013 is an important step towards the right to food and to bring it within the framework of legally mandated entitlements.
- Different studies have shown that the risk of leakages and identification of beneficiaries problem still exist in NFSA, 2013.
- To ensure food security to the poor with wide coverage of PDS, it would be more appropriate to emphasize strategies, which reduce poverty and generate employment opportunities.



6.10 FURTHER READING

1) Datt, G and Mahajan, A. (2016). *Datt & Sundharam's Indian Economy.* New Delhi: S. Chand & Co.
2) Misra, S.K. & Puri, V.K. (2018). *Indian Economy.* New Delhi: Himalya Publishing House.
3) Sen, A. K. (1983). *Poverty and Famines: An Essay on Entitlement and Deprivation.* New Delhi: Oxford University Press.

6.11 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: (i) True (ii) False (iii) True

Ans to Q No 2: The group of people who are mainly food insecure belongs to people employed in ill-paid occupations, casual labourers, landless people, petty self-employed, workers and destitute including beggars, the people affected by natural disasters and most importantly the Women and Children.

Ans to Q No 3: Hunger and poverty is persistent in a food insecure economy. According to FAO estimates in "The State of Food Insecurity in the world, 2015" report 15.2 percent of Indian population is undernourished and 194.6 million people go hungry every day". Huger may be of two types- Seasonal Hunger and Chronic Hunger.

Seasonal Hunger is related to the cycles of food security and insecurity. Seasonal hunger is a type of hunger when a person doesn't get proper food neither in terms of quantity nor in terms of quality for some time during the year. On the other hand, Chronic Hunger is a consequence of diets persistently inadequate in terms of quantity and/ or quality. Poorer sections of the society suffer from chronic hunger because of their very low income and in turn inability to buy food even for their survival .

Ans to Q No 4. The Food Corporation of India(FCI) is the major agency to run the network of PDS . FCI procures foodgrains, specially wheat and rice from the farmers immediately after the harvesting of these crops. The stocks of these grains are released through the Fair Price Shop to distribute among the poorer section of the society. FCI was established in the year 1965.

Ans to Q No 5. Minimum Support Price is the price fixed by the Govt. of India (before crop sowing) to protect the producer-farmers against excessive fall in price during bumper production years. The issue price is the one at which goods are released from FCI. The difference between MSP and CIP is known as Subsidy.

Ans to Q No 6: Ration cards issued under PDS are of three types-

(i) Below Poverty Line (BPL)

(ii) Above Poverty Line (APL)

(iii) Antyodaya Anna Yojana (AAY)

6.12 MODEL QUESTIONS

Short Questions (Answer each question in about 150 words)

Q 1: Discuss the problem of food security in India.

Q 2: Write a short note on the working of PDS in India.

Q 3: Explain the salient features of NFSA,2013

Q 4: Write short notes

a) Minimum Support Price

b) TPDS

c) Hunger and Malnutrition

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

Q 1: What is Food Security? Discuss different dimensions of food security.

Q 2: Illustrate the working of PDS. Discuss its limitations and suggest some important strategies for its improvement.

Q 3: "PDS is the largest food based safety net introduced by the Government of India"

Evaluate this statement considering the impact of PDS on poverty in India.

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UNIT 7 : INDIAN INDUSTRY: DEVELOPMENTAL EXPERIENCES

UNIT STRUCTURE

7.1 Learning Objectives

7.2 Introduction

7.3 Strategy of Industrial Development in India

7.4 Industrial Development and the Trend of Industrial Production since Independence

7.4.1 Industrial Development since Independence

7.4 2 Trend of Industrial Production since Independence

7.5 Problems of Industrialisation in India

7.6 Industrial Policy Resolution, 1956

7.7 Industrial Licensing Policy prior to 1991

7.8 New Industrial Policy, 1991

7.9 Let Us Sum Up

7.10 Further Reading

7.11 Answers to Check Your Progress

7.12 Model Questions

7.1 LEARNING OBJECTIVES

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

- discuss the strategies of the industrial development in India
- state the status of industrial development and the trend of industrial production
- point out the problems Indian industries are having to tackle, explain the major features of IPR, 1956
- describe the licensing policies relating to industry
- explain the New Industrial Policy of 1991

7.2 INTRODUCTION

India has made considerable economic progress since its Independence. Most noticeable are the expansion and diversification of production both in

industry and agriculture. New technologies were introduced in many industries. Industrial investment took place in a large variety of new industries. Modern management techniques were introduced. Over the years, the Government has built the infrastructure required by the industry and has made massive investments to provide the much-needed facilities of power, communications, roads etc. However, with the changing time, the economy has been transformed from public sector controlled economy into a liberal economy, where the private sector has to play the major role in the changing circumstances of the global economy. This unit will introduce you to the industrial sector of India, and the major changes it has witnessed over the years, in terms of policies and practices.

7.3 STRATEGY OF INDUSTRIAL DEVELOPMENT IN INDIA

The British left the industrial sector of India in a very distressed situation. On one hand, it destroyed the traditional handloom and handicraft industries of India and on the other, transformed the economy to be the consumer of machine made products imported from England. The centre piece of India's development strategy thus, was the modernization of the economy through industrialization. The development strategy adopted by the Indian planners consisted of the following:

- **Establishment the Industrial Infrastructure with Pubic Efforts:** Private industrial effort was viewed inadequate for the task of developing India's infrastructure. Underlying this view, public sector was involved in the task of establishing the industrial infrastructure of the country. Even non-infrastructure sectors such as steel, chemicals or machine tools may be subject to coordination or linkage issues that require a *'big push'* further supporting public interest. Thus, India's leaders embarked on a programme of government occupation of the 'commanding heights' of the economy.
- **Expansion and Modernisation of Industries:** The rapid pace of industrial growth and the development of productive capacity required the expansion and modernization of coal mining, as coal is India's primary

source of fuel for the industries. In fact, public sector enterprises were created to take leading roles in all industries and sectors viewed as central to the industrialization programme, including steel, chemicals, and engineering, as well as trade and finance.

- **Establishment of Heavy Industries:** From the very inception of economic planning in India, the engineering industry including machine building industry represented the core of India's development process. A broad-based industrial structure could not be sustained except on the basis of a strong, vibrant growth- oriented engineering sector. At the same time, the engineering industry was encouraged to develop indigenous skills and know-how and reduce dependence on imported technology. It was realized that technological skills and expertise alone could lead to high productivity levels and consequently to high levels of incomes. The engineering industry was therefore being promoted to act as a catalytic agent for overall economic development.
- **Import substitution:** Another aspect of the industrial strategy was the policy of import substitution. From the very beginning, a shortage of foreign exchange was anticipated as a major constraint to developmental efforts. It was therefore rightly decided to reduce the demand of imports and to promote generation of foreign exchange earnings. Substantial measures were taken for import substitution, and thus, preserving foreign exchange for development.
- **Emphasis on Science and Technology:** Significant progress has been made in science and technology. Indian scientists and technologists have made advances in the development of nuclear power, and the use of space technology for communications and resource development. The country has been able to train a cadre of technical manpower which can handle cement factories, chemical fertilizer units, oil refineries, power houses, steel plants, locomotive factories, engineering industries etc. However, small and cottage industries and other rural activities have not received the research and development support that they required.
- **Emphasis on Agricultural and service sectors:** A large infra-structure

consisting of a network of irrigation, storage works and canals, hydro and thermal power generation, regional power grids, a largely electrified and diesel run railway system, national and state highways on which a rapidly growing road transport fleet can operate and telecommunications system covering most urban centres and linking India with the rest of the world has been built up. Additionally an efficient complex of refineries, pipelines, storage and distribution system has been built up. The development of modern industry as well as of agriculture has stimulated the growth of banking, insurance and commerce and required expansion and modernization of ports, shipping and internal and external air services.



CHECK YOUR PROGRESS

Q 1 : State whether the following statements are True or False :

(a) The British took steps to promote the indigenous industries of India. (T/F).

(b) Establishment of heavy industries with the help of the private sector was the strategy of the government. (T/F)

Q 2 : How did the strategy of import substitution help India? (Answer in about 50 words).

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7.4 INDUSTRIAL DEVELOPMENT AND THE TREND OF INDUSTRIAL PRODUCTION SINCE INDEPENDENCE

In the following sections, we shall discuss industrial development and the trend of industrial production of Indian industries since independence.

7.4.1 Industrial Development since Independence

You have already studied that in the post-independence period, India started to develop different types of industries with the help of economic planning. The index of industrial production (Base 1980-81=100) increased from 18.3 in 1950-51 to 65.3 in 1970-71. During this twenty years period of planning, some basic and heavy industries were developed in the country. Due to the expansion of the industrial base, the index of industrial production had again increased from 100 in 1980-81 to 196.4 in 1989-90, then to 154.9 in 1999-2000 and then to 221.5 in 2005-06. (**Source:** *Economic Survey*, 1992-93, 1997-98 and 2006-07). In the recent years (Base 2011-12=100) the IIP has increased to 1.4.6 in 2016-17, 104.4 in 2017-18 and the declined to 103.8 in 2018-19. Further, IIP increased to 129 in 2019-20, but declined to 118.1 in 2020-21. In 2021-22, IIP further rose to 131.6 (**Source:** CSO, MOSPI)

The process of industrialisation, launched as a conscious and deliberate policy under the framework of Industrial Policy Resolution of 1956 involved heavy investments in building up capacity over a wide spectrum of industries. As a result, industrial production has gone up by more than five times during the last 60 years, making India the tenth most industrial country in the world.

The industrial structure is widely diversified covering broadly the entire range of consumer, intermediate and capital goods. With the expansion of public sector enterprises, joint sector enterprises and private sector enterprises in the later period, various types of industries have developed in the country. The public sector industries produce goods like coal, steel, light and heavy engineering goods, power, petroleum, minerals and metals, fertilizers, chemicals and pharmaceuticals, textiles, transportation equipments, construction materials, electricity, gas etc.

The private sector corporates are engaged in manufacturing textiles, metal products, chemicals, construction materials,

electronics, leather and leather goods, manufacture of foodstuffs and its processing, agriculture and agro-based industries.

The progress India has made in the field of industrialization is clearly reflected in the commodity composition of India's foreign trade in which the share of imports of manufactured goods has steadily declined. On the other hand, industrial products particularly engineering goods have become a growing component of India's exports. Finally, the rapid stride in industrialization has been accompanied by a corresponding growth in technological and managerial skills for efficient operation of the most sophisticated industries and also for planning, designing and construction of such industries.

7.4 2 Trend of Industrial Production since Independence

Industrial growth has not been uniform since 1951. After a steady growth of 8 percent during the first fourteen years (1951 to 1965), the growth began to fluctuate. Industrial growth was almost stagnant during 1967-68. It was 9.5 percent during 1976-77 but 1.4 percent in 1979-80. During 1980-85, the growth rate of industrial production was 5.5 percent per annum. During the seventh plan, (1985-90), the growth rate had picked up to an average of over 8 percent per annum and in the eight plan (1992-1997) it had declined to 7.3 percent per annum. During the ninth plan (1997-2002) industrial growth fell to 4.6 percent per annum but during the tenth plan (2002-2007), it again went up to about 9.1 percent per annum.

Let us consider Table 7.1 depicting the growth of industrial production in a wide variety of industries over the years, since 1950-51 to 2013-14.

From Table 7.1, it can be easily inferred that there has been huge increase in the volume of production in a wide variety of industries. From just a meager 9 million tonnes of fertilizers in 1950-51, the country has produced 16,902 million tonnes in 2013-14. Impressive increase in production has also been recorded in electricity, cloth, aluminimum, commercial vehicles, finished steels

as well as cement and paper & paper board.

Table 7.1 : Growth of Industrial Production of Selected Commodities over the Years

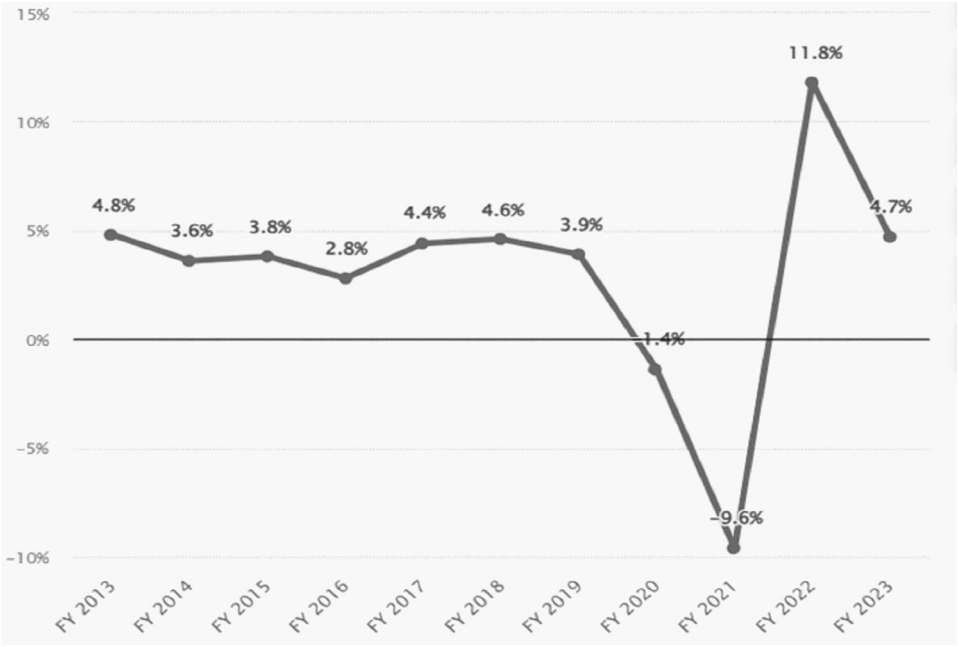
Sl	Commodity and units	1950-50	1970-71	2005-06	2013-14
1	Cloth (in million meters)	4,215	7,602	23,873	63,500
2	Fertilisers (in '000 tonnes)	9	830	11,402	16,092
3	Cement (in million tonnes)	2.7	14.3	147.8	255.00
4	Finished steels (in million tonnes)	1.0	4.6	44.5	87.7
5	Electricity (in billion kwh)	5.1	55.8	617.0	967.2
6	Aluminium (in '000 tonnes)	4.0	168.8	560.5	3958
7	Paper, paper board (in '000 tonnes)	116	755	3,913	4389*
8	Commercial vehicle (in '000 units)	8.6	41.2	391.0	910.2*

Source: *Datt & Sundharam's Indiain Economy, 2016.*

**Figures are for the year 2014-15.*

Annual growth rate of production in the manufacturing industry in India from financial year 2013 to 2023 has been shown with the help of Figure 7.1.

Figue 7.1: Annual growth rate of production in the manufacturing industry in India from financial year 2013 to 2023

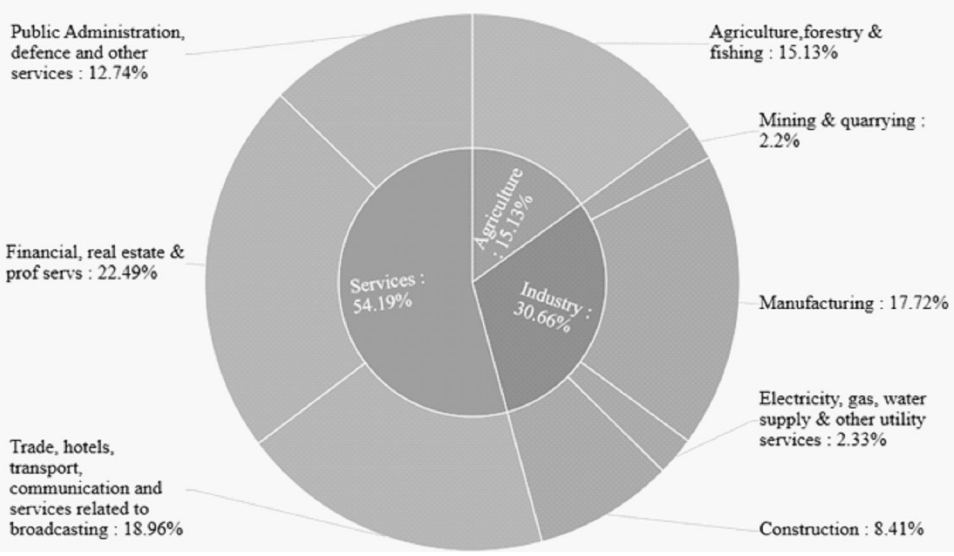


Source: https://www.statista.com/statistics/661391/manufacturing-industry-production-growth-rate-india/

From Figure 7.1, it has been seen that the manufacturing sector in India has grown approximately 4 percent on an average, other than the years 2020 and 2021. Covid-19 had a severe affect on this sector, not only in India but also in almost all the countries of the world. In 2022, the sector recorded the highest growth of 11.8 percent, basically because in the immediate post-pandemic year, these was huge activities in the sector. In the following year, i.e., in 2023, the sector recorded a 4.7 percent growth rate.

Contribution of the industrial sector to GDP: The contribution of the industrial sector to the GDP of the country was 15 percent in 1950-51. It gradually increased to 22.3 percent in 1970-71, and then to 26.8 percent in 2007-08 (Economic Survey 2007-08). According to the Economic Survey of India (2022-23), the industrial sector accounts for 31 percent of India's GDP and employs over 12.1 crore people. The contribution of the three sectors of the economy and the major sub-sectors in 2022-23 has been shown in Figure 7.2. It can been seen that among the different industrial sub-sectors, manufacturing contributes the most. In fact, contribution of manufacturng (18 percent) is more than the entire agriculture sector (15 percent).

Figure 7.2 : Sector-wise GDP in India (2022-23) (At 2011-12 prices)



Source : https://statisticstimes.com/economy/country/india-gdp-sectorwise.php



CHECK YOUR PROGRESS

Q 3 : State whether the following statements are True or False.

(a) During the first twenty years of planning, India established a series of micro industries in the public sector for the production of consumer products. (T/F)

(b) The industrial structure in India is widely diversified. (T/F).

Q 4 : State the plan-wise rate of growth of industrial production after the 1980s and till the recent years. (Answer in about 60 words)

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7.5 PROBLEMS OF INDUSTRIALISATION IN INDIA

It is true that industrialisation in India since independence has significanty contributed towards the growth in national income, increasing employment opportunities and thereby making positive impact on reduction of poverty and improvement in health and education of the people of India. However, the industrial sector of India is facing some crucial problems, which is retarding its pace of growth. Some of India's current problems regarding industrialisation are mentioned below:-

Infrastructure : Even when the country set up a heavy industrial base of basic industries, it lacks the industrial base that propels rapid economic growth of the globalised economies today. Thus, poor infrastructure is acting as a drag on the Indian economy, and the Indian government is now attracting private domestic and foreign investment to build the backbone of a modern economy. This includes massive improvements in telecommunications, power, energy, and transport.

India has recognised the vital role telecommunications play in the growth of the economy. The Indian telecom sector was wholly under government ownership and control until recently and was characterised by

under-investment and outdated equipment. Advanced communication services through the use of latest information technologies becoming increasingly common. Foreign collaboration is also being encouraged in mobile phones and other communication technologies. The power problems are severe in India with irregular power supply and damaging voltage fluctuations that require companies to generate their own power. Investment in energy is a sound way of increasing manufacturing activity.

As part of India's liberalisation efforts, the transportation sector has been opened to private investment. Some of the recent schemes launched for the rapid development of the infrastructural facilities in India include the following:

- PM Gati Shakti.
- Smart Cities Mission Portal by Ministry of Urban Development.
- Atal Mission for Rejuvenation and Urban Transformation (AMRUT).
- Lumpsum Provision for the Benefit of North Eastern Region including Sikkim.
- National Urban Information System Scheme.

Inefficient Public sector : We have already seen that in an attempt to build up the industrial base of the economy, the country had created a huge public sector. But India's public sector is notoriously bloated and inefficient. Instances are there when the World Bank turned down applications for power loans for projects in some states because of mismanagement in their governance. Many electricity boards have become insolvent as a result of providing electricity at extremely subsidised rates and ignoring large-scale thefts of electricity. State governments have been unable or unwilling to take the politically unpalatable decisions needed to make their electricity boards viable.

The most telling evidence of the cost of delaying reform is the sheer effort companies have to expend to cope with the country's labyrinthine bureaucracy. For example, foreign investors continue to seek permission from the Foreign Investment Promotion Board, even though their plans are covered by the automatic approvals system.

Tax Problems : India's tax system is highly defective and should be transformed with high differential tax rates falling on a narrow base, into one with tax rates at moderate levels falling on a broad base. The 1995 fiscal budget reduced taxes on corporate income, and a major reform of excise taxes was implemented to make it resemble a value-added tax more closely. To make collection of direct taxes more efficient, Government has introduced GST (Goods and Service Tax) system in the country.

But the government's income is also constrained by an inefficient taxation system. Rural areas are not taxed, because in most of the states of India, agricultural income tax has not been implemented. Income tax is skilfully dodged. This leaves the government with excise and customs duties, which represent two thirds of all taxes.

Inefficient Labour market : India needs greater labour market flexibility to make its companies more competitive and its economy more productive. Politically powerful labour unions have stifled most efforts of serious reform or privatisation of India's largest public sector enterprises. Thus, public sector banks, insurance companies, and many major industries are being run inefficiently. Thus, it has been criticized that India's labour laws hinder efficiency and growth.

Financial sector : India's financial sector still cannot effectively mobilise and mediate capital to respond to economic changes. The resulting high cost of capital makes Indian industry and exports less competitive. In spite of recent improvements, India's equity markets are still too thin and volatile to inspire great confidence on the part of domestic or foreign investors. India's banking system remains flawed, with the dominant state-owned banks still carrying bad loans amounting to 15 to 25 percent of their total.

Environmental Pollution : The environmental problems in India are growing rapidly. The increasing economic development and a rapidly growing population that has taken the country from 300 million people in 1947 to more than 1.3 people today is putting a strain on the environment, infrastructure, and the country's natural resources. Industrial pollution, soil erosion, deforestation, rapid industrialization, urbanization, and land degradation are all worsening problems. Overexploitation of the country's

resources has resulted in environmental degradation of resources. Environmental pollution is one of the most serious problems facing humanity and other life forms on our planet today.



CHECK YOUR PROGRESS

Q 5 : State whether the following statements are True or False:

(a) The tax system of India is highly efficient. (T/F)

(b) Indian exports are less competitive. (T/F).

Q 6 : Outline the prospects of the of the telecommunication sector in India. (Answer in about 60 words).

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7.6 INDUSTRIAL POLICY RESOLUTION, 1956

Immediately after Independence, the Government of India introduced the Industrial Policy Resolution, 1948. This policy resolution outlined the approach to industrial growth and development. It emphasized the importance to the economy of securing a continuous increase in production and ensuring its equitable distribution. After the adoption of the Constitution and the socio-economic goals, the Industrial Policy was comprehensively revised and adopted in 1956. To meet new challenges, from time to time, it was modified through statements in 1973, 1977, 1980 and 1991.

Industrial Policy Resolution, 1956 : The Industrial Policy Resolution of 1956 (IPR, 1956) had the objective of accelerating of the rate of economic growth and the speeding up of industrialisation as a means of achieving a socialist pattern of society. This industrial policy is said to have drawn the road map of Indian industries. Major provisions of IPR, 1956 include:

- **New classification of industries :** The IPR 1956 categorised different industries of the country into three major categories and listed them in three schedules as follows:
  - ***Schedule A:*** This list contained a total of 17 industries that were open only to the public sector. These industries were: arms and ammunition; atomic energy; iron and steel; heavy castings and forgings of iron and steel; heavy machinery required for iron and steel production, for mining and for machine tools manufacturing; heavy electrical industries; coal; mineral oils, mining; iron ore and other important minerals like copper, lead and zinc; aircraft; air transport, railway transport, shipbuilding; telephone, telegraph and wireless equipment; generation and distribution of electricity.
  - ***Schedule B:*** This list included the 12 industries in which the public sector is expected to play the lead role. The private sector is expected to play supplementary efforts in these industries. These industries were: other mining not included in schedule A; aluminimum and other non-ferrous metals not included in Schedule A; machine tools; ferro alloys and tool steels; the chemical industry; antibiotics and other essential drugs; fertilizers; synthetic rubber; carbonization of coal; chemical pulp; road transport; sea transport.
  - ***Schedule C:*** This list included all other remaining industries and their future development would, in general be left to the private sector.
- **Fair and non-discriminatory treatment to private sector:** To facilitate and promote enterprising activities of the private sector, the state was to undertake the facilitating role by providing infrastructural facilities, like transport, power and other services and by taking appropriate fiscal and other measures. In case of existence of private sector and public sector enterprises in the same industry, the duty of the government was to practise non-discriminatory treatment to both of them.
- **Promotion of village and small-scale enterprises:** For the promotion off village and small-scale enterprises, the State was to limit its volume of production in its similar big industries. Again, provision of differential tax treatment and direct subsidies were also allowed.

- **Removal of regional disparities:** IPR, 1956 also had emphasized on the removal of regional disparities among the different regions of the country. According to it, proper attention to agricultural sector across all regions of the country should also be paid, such that the standard of living of all the people across the country is improved.

Apart from the IPR, 1956, India has adopted the Industrial Policy Statement of 1977 which laid emphasis on decentralisation and on the role of small-scale, tiny and cottage industries. The Industrial Policy Statement of 1980 focused attention on the need for promoting competition in the domestic market, liberalization of the licensing policy, technological upgradation and modernisation.



CHECK YOUR PROGRESS

Q 7 : State whether the following statements are True or False :

(a) The first industrial policy resolution in India was adopted in 1956. (T/F)

(b) The Industrial Policy Resolution of 1956 classified the industrial sector of Indian into 5 major categories. (T/F).

Q 8 : Which industries were included in Schedule B of the IPR, 1956? (Answer in about 60 words).

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7.7 INDUSTRIAL LICENSING POLICY PRIOR TO 1991

Industrial licensing policy prior to 1991 in India can be discussed under the framework of two major industrial acts/policies: a) Industries (Development & Regulation) Act, 1951 and b) Industrial Policy, 1980.

- **Industries (Development & Regulation) Act, 1951 :** In the post-independence period, the first industrial licensing policy was adopted in line with Industries (Development & Regulation) Act, 1951, which was

framed in accordance with the IPR, 1948. The important provisions of this act were:

- Licensing from the Union Government is compulsory for setting up of new industrial units as well as major expansion of existing units. In case of grant of license to new industrial units, government has the authority to lay conditions regarding location, minimum volume of production, etc.
- If particular undertakings fail to effectively implement the instructions of the government regarding improvement in managerial practices and policies, government has the authority to take control of the management of such undertakings.
- According to this policy, government had the authority to prescribe prices as well as methods, volume of production and the channel of distribution of the finished products.

Later, a number of committees (Dr. R. K Hazari Committee, Subimal Dutt Committee) set up by the Government of India had unearthed a number of loopholes in the process of industrial licensing. The major loopholes were: a) only a few large industrial houses were able to garner most of the benefits. b) No follow up action after the issues of licenses were undertaken. c) Setting up of industries was confined only to 4 states, viz, Maharashtra, West Bengal, Gujarat and Tamil Nadu. These states acquired 62 percent of all the licenses issued by the Centre. This spread regional inequalities in India. d) In practice, industries reserved for the public sector was opened up for private sector.

- **Liberalisation of Industrial Licensing after 1980 :** The Industrial Policy of 1980 made sea changes in terms of liberalizing the licensing in favour of the large business houses. Many provisions of the erstwhile MRTP Act (Monopolies and Restrictive Trade Practices Act) and FERA (Foreign Exchange Regulation Act) were relaxed. Other features of the Industrial Policy of 1980 include:
  - ***Broad band industries*** mean a number of industries in the same product category. For example, in case of fertilizer, there may exist a number of variety of products, viz., NPK, Super Phosphate, Urea,

Copper Aminoate, Bio fertilizers, etc.

The policy of automatic licensing was made applicable for those industries, which wanted to achieve economies of scale, with a minimum of 49 percent rise in the existing volume of production, and aiming to adopt modernization of the industries. In 1986, government delicensed 23 industries from any MRTP and FERA clearance, provided the undertakings were located in the industrially backward areas identified by the Centre.

- Instead of issuing licenses to a particular industry, licenses were issues to ***broad-band industries*** subject to not exceeding the total volume of production as has been made provision for during licensing. This helped the industries to vary their production among a number of variety of goods, based on the market demand.
- The asset limit of the companies as laid down in the MRTP Act, was raised.
- Number of industries requiring compulsory licensing was reduced from 56 to 26.



CHECK YOUR PROGRESS

Q 9 : State whether the following statements are True or False:

(a) The first industrial licensing policy in India was based on the Industrial Policy Resolution of 1948. (T/F)

(b) Industries (Development and Regulation) Act, 1951 had provisions of Government's control on prices, volume of production and also channels of distribution of the finished products. (T/F).

Q 10 : How was the policy of automatic licensing was made applicable in the Industrial Policy of 1980? (Answer in about 40 words).

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7.8 NEW INDUSTRIAL POLICY, 1991

The Government's liberalisation and economic reforms programme is stated in the Industrial Policy Statement of 1991. This policy aims at rapid and substantial economic growth, and integration with the global economy in a harmonised manner. The industrial policy reforms have reduced the industrial licensing requirements, removed restrictions on investment and expansion, and facilitated easy access to foreign technology and foreign direct investment. This policy is also known as Liberalisation, Privatisation and Globalisation (LPG) policy of India.

The main thrusts of the industrial policy of 1991 are the following:

- Number of industries reserved for the public sector as listed in Schedule A of IPR, 1956 has been considerably relduced. Most of the industries have been opened for the private sector.
- Licensing was made mandatory only for 18 industries in 1991. 3 more industries were further relaxed from mandatory licensing in 1993. As of now, only industries need prior licensing from Centre. In most of the cases, the only license today required is the Environmental clearance.
- Entrepreneurs are required to obtain Statutory clearances relating to Pollution Control and Environment for setting up an industrial project. A Notification (SO 60(E) dated 27.1.94) issued under The Environment Protection Act 1986 has listed 29 projects in respect of which environmental clearance needs to be obtained from the Ministry of Environment, Government of India. This list includes industries like petro-chemical complexes, petroleum refineries, cement, thermal power plants, bulk drugs, fertilisers, dyes, paper etc. However if investment is less than Rs. 500 million, such clearance is not necessary, unless it related to pesticides, bulk drugs and pharmaceuticals, asbestos and asbestos products, integrated paint complexes, mining projects, tourism projects of certain parameters, tarred roads in Himalayan areas, distilleries, dyes, foundries and electroplating industries.
- Apart from the liberalization and globalisation of economy, it also aimed at building upon the gains achieved, to correct the distortions, maintain

a sustained growth in productivity and gainful employment and attain international status, dismantling of the regulatory system, development of the capital markets and increasing competitiveness for the benefit of the common man.

- The spread of industrialization to backward areas of the country will be actively promoted through appropriate incentives, institutions and infrastructure investments. While recognizing the role of public sector, the new policy seeks to ensure that the public sector is run on business lines envisaging privatization, disinvestments and public sector restructuring.
- Another major objective of the policy is to integrate the Indian economy with the world economy. There will be emphasis on developing ability to self finance India's imports.
- The policy also aimed at encouraging entrepreneurship, development of indigenous technology, ushering in new technologies by dismantling redundant controls, and developing capital markets. With this end in view, foreign investment will be welcomed. This will bring in new technology, expand the production base and permit increased imports. To achieve these objectives, more dynamic policies in terms of both technology and investment has to be adopted.
- Inflow of Foreign Direct Investment (FDI) was encouraged with an aim to take advantages of technology transfer, marketing expertise, introduction of modern managerial techniques and new possibilities for promotion of exports. This is particularly necessary in the changing global scenario of industrial and economic cooperation marked by mobility of capital. In order to invite foreign investment in high priority industries, requiring large investments and advanced technology, it has been decided to provide approval for direct foreign investment upto 51 percent foreign equity in such industries.
- With a view to injecting the desired level of technological dynamism in Indian industry, Government will provide automatic approval for technology agreement related to high priority industries within specified parameters. Indian companies will be free to negotiate the terms of

technology transfer with their foreign counterparts according to their own commercial judgment.

- To sustain global competition, government has the indigenous industries to invest much more in research and development than they had done in the past. In order to help this process, the hiring of foreign technicians and foreign testing of indigenously developed technologies, will also not require any prior clearance.



CHECK YOUR PROGRESS

Q 11 : State whether the following statements are True or False :

(a) The New Industrial Policy statement of 1991 is also known as Liberalisation, Privatisation and Globalisation (LPG) policy of India. (T/F)

(b) The public sector of India received a major boost with the initiation of the New Industrial Policy of 1991. (T/F)

Q 12 : What provisions were made with respect to foreign investment in the New Industrial Policy statements of 1991? (Answer in about 60 words).

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7.9 LET US SUM UP

- India has made considerable economic progress since its Independence.
- The centre piece of India's development strategy since independence is modernization through industrialization.
- Most of the industries are located in the states of Maharashtra, West Bengal, Tamil Nadu and Gujarat.

- The index of industrial production had gone up from 7.9 in 1950-51 to 154.7 in 1999-2000. In the recent years, with the base of 2011-12, the IIP had increased to 104.4 in 2017-18, but then declined to 103.8 in 2018-19.
- Several capital goods industries such as iron and steel, fertilizers, chemicals, cement, non-ferrous metals etc-have been set up.
- Consumer goods industries have been expanding since the demand for consumer durables have gone up.
- The rapid expansion of large scale industries has resulted in the comparative neglect of the small and medium sector.
- Sufficient attention has not been given to the promotion of small scale industries in the consumer goods sector which can reconcile the twin objectives of higher growth and higher employment.
- India needs greater labour market flexibility to make its companies more competitive and its economy more productive.
- The spread of industrialisation to backward areas of the country is actively promoted through appropriate incentives, institutions and infrastructure
- Entrepreneurs are required to obtain Statutory clearances relating to Pollution Control and Environment for setting up an industrial project.
- Industrialization in India has not been able to solve the problem of unemployment.



7.10 FURTHER READING

1) Agrawal, A. N. (2019). *Indian Economy: Developmental Problems and Policies.* New Delhi: New Age International Publishers.
2) Datt, G and Mahajan, A. (2016). *Datt & Sundharam's Indian Economy.* New Delhi: S. Chand & Co.
3) Kapila, U. (2003). *Indian Economy since Independence.* New Delhi: Academic Foundation.
4) Misra, S.K. & Puri, V.K. (2018). *Indian Economy.* New Delhi: Himalya Publishing House.

7.11 ANSWERS TO CHECK YOUR PROGRESS

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

Ans to Q No 2 : The strategy of import substitution helped in the savings of foreign exchanges. Thus, India could utilise the foreign exchanges in its development efforts. It also promoted the domestic industrial sector of the economy.

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

Ans to Q No 4: During 1980-85, the growth rate of industrial production per annum was 5.5 percent. During the seventh plan (1985-90), it picked up to over 8 percent. In the eighth plan (1992-97), it slightly declined to 7.3 percent. In the ninth plan (1997-2002), it further declined to 4.6 percent per annum. In the last completed tenth plan (2002-2007), the growth rate rose to 9.1 percent per annum.

Ans to Q No 5: (a) False (b) True

Ans to Q No 6: The telecommunication sector of India has been freed from government controls. The prospect of this sector is very high. This is because of the fact that India has one of the lowest telephone densities (1.3 telephones per 100 population), compared to the world average of 10 per 100 persons. The growth of the information technology (IT) sector in India also signals higher potential of growth for the telecommunication sector.

Ans to Q No 7 : (a) False (b) False

Ans to Q No 8 : The schedule B of the IPR, 1956 included 12 industries in which the public sector was expected to play the lead role. The private sector was expected to play supplementary efforts. Important industries included in this schedule were – coal, synthetic rubber, road transport, sea transport, anti-biotics and other essential drugs, etc.

Ans to Q No 9 : (a) False (b) True

Ans to Q No 10 : The Industrial Policy of 1980 made provisions for automatic licensing to those industries which wanted to achieve economies of scale, with a minimum of 49 percent rise in the existing volume of

production, and aiming to adopt modernization of the industries.

Ans to Q No 11 : (a) True (b) False

Ans to Q No 12 : The inflow of Foreign Direct Investment (FDI) was greatly encouraged in the NEP of 1991. It was encouraged with an aim to take advantage of technology transfer, marketing expertise, introduction of modern managerial techniques and new possibilities for promotion of exports. In industries requiring large investments and advanced technology, FDI up to 51 percent has been allowed.



7.12 MODEL QUESTIONS

Short Questions (Answer each question in about 150 words)

Q 1 : Discuss briefly the industrial development in India since independence.

Q 2 : Write a short note on the trend of industrial production in India since independence.

Q 3 : State the role of infrastructure in the industrial development of India.

Q 4 : Prepare a short note on the new classification of industries as was listed in the Industrial Policy Resolution of India, 1956.

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

Q 1 : Discuss the provisions of the industrial licensing policies in India prior to 1991.

Q 2 : Describe the major aims and objectives of the New Industrial Policy, 1991 adopted by India.

Q 3 : Give your views on the pattern and strategy of industrial development in India since independence.

Q 4 : Discuss industrial development in India and its trend since independence.

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UNIT 8 : THE ROLE OF THE TERTIARY SECTOR IN THE INDIAN ECONOMY

UNIT STRUCTURE

8.1 Learning Objectives

8.2 Introduction

8.3 The Service Sector

8.4 Changing Role of the Tertiary Sector in the Indian Economy

8.5 The Recent Growth of the IT and Other Service Sectors

8.6 Major Issues faced by the Service Sector

8.7 Suggestive Policy Measures

8.8 Let Us Sum Up

8.9 Further Reading

8.10 Answers to Check Your Progress

8.11 Model Questions

8.1 LEARNING OBJECTIVES

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

- conceptualise the service sectors and point out its various components
- outline the importance of services sectors in Indian economy and discuss its changing role.
- describe the growing dimensions of various components of services sector.
- discuss the issues and challenges faced by services sector in India.
- put forward certain interventions required to addresses some challenges faced by the services sector in India and strengthen it for furthering its growth.

8.2 INTRODUCTION

If we carefully look at the growth trajectory of Indian economy, it is clear that India's present growth is service sector-led growth. Over the years, the share of services in Gross Domestic Product (GDP) of India has been rising

consistently whereas the share of agriculture is sharply declining and industrial growth rate has remained more or less stagnant. For instance, between 1950-51 and 2013-14 the share of Agriculture in GDP has declined from 53 percent to 13.9 percent whereas the share of services sector has increased from nearly 30 percent in 1950-51 to 59.9 percent in 2013-14. Services sector though started growing since 1980-81, this phenomenon has become more pronounced after 1990-91 i.e. after liberalisation, privatisation and globalisation. In fact, since 2000-01, services sector triggered the growth momentum of Indian economy. Almost all sectors under the umbrella of "Service Sector" viz. trade, hotels, transport & communication, financing, insurance, real estates, community, social and personal services registered considerable growth resulting in high growth performance in Indian economy. In this backdrop it is important to look into the significance and various dimensions of services sector in Indian economy. (Please refer to Figure 7.2 of Unit 7 for a recent scenario.)

8.3 THE SERVICE SECTOR

The service sector is the sector which provides services. In an economic sense, services are any functions or tasks that are performed for which there is a demand and hence a price determined in the relevant market. (Macmillan Dictionary of modern Economics). Services are also known as intangible goods. Services are consumed at the point of production and they are usually non-transferable. In the earlier time to few years back, the service sector was the less contributing sector to GDP of India and also the employment opportunity was low. This may be the reason behind the service sector is also name as tertiary sector (tertiary means in third place). In the traditional economy, there are mainly three sectors: primary sectors, secondary and tertiary sector in the economy. Primary sector includes the activities related to agriculture and allied services, secondary sector includes industrial activities and the tertiary sector includes the services provided by trade, hotels and restaurants; transport storage and communication; financing, insurance, real estate, and business services; community, social

and personal services (As classification provided by National Accounts).



LET US KNOW

- Services are any functions or tasks that are performed for which there is a demand and hence a price determined in the relevant market.
- Services are non-transferable. There is no'arbitrages', i.e. the services cannot be purchased and then resold at different price.
- In most developed countries, the service sector contributes the major portion of GDP and generates three times more employment than manufacturing sector.
- Main reasons behind the growth of services include rapid urbanization, the expansion of the public sector and increased demand for intermediate and final consumer services. Access to efficient services has become crucial for the productivity and competitiveness of the entire economy.



CHECK YOUR PROGRESS

Q 1: What is meant by Services sector?

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Q 2: What is meant by the primary sector in India?

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8.4 CHANGING ROLE OF THE TERTIARY SECTOR IN THE INDIAN ECONOMY

In early years, almost in all the developing countries including India, agriculture contributed major portion of GDP. But in recent few years, the picture has been changing as service sector contributes the major portion of GDP. Thus,the service sector has experienced a rapid shift in generating

both income and employment all over the world. In India, growth has been shifted from agriculture to service sector, not in traditional pattern i.e., from agriculture to industry and then industry to service sector. Thus, current growth of India is service led growth. This type of growth path can be termed as the services sector revolution. Recently, service sector has emerged as leading sector of India as it provides major contribution to India's GDP and second largest employment providing sector after agriculture sector.

The role of service sector has changed from lowest contributor to highest contributor to India's national income. This can be evaluated with the following discussion:

Contribution to GDP: In the early years, the share of service sector to Indian Gross Domestic Product was very negligible. But in recent years the share of services sector to GDP of India has been increasing. The share of tertiary sector to India's GDP has increased from almost one third of total GDP in 1950-51 to 57 percent in 2009-10. The following table shows this changing share of service sector in India's GDP.

Table 8.1: Shares of Services sector to India's GDP (in percent)

Year	1950	1960	1970	1980	1990	2000	2010-11	2013-14	2014-15
Services sector	29.8	32.8	35.9	40.3	45.7	53.7	57.48	59.93	50.1

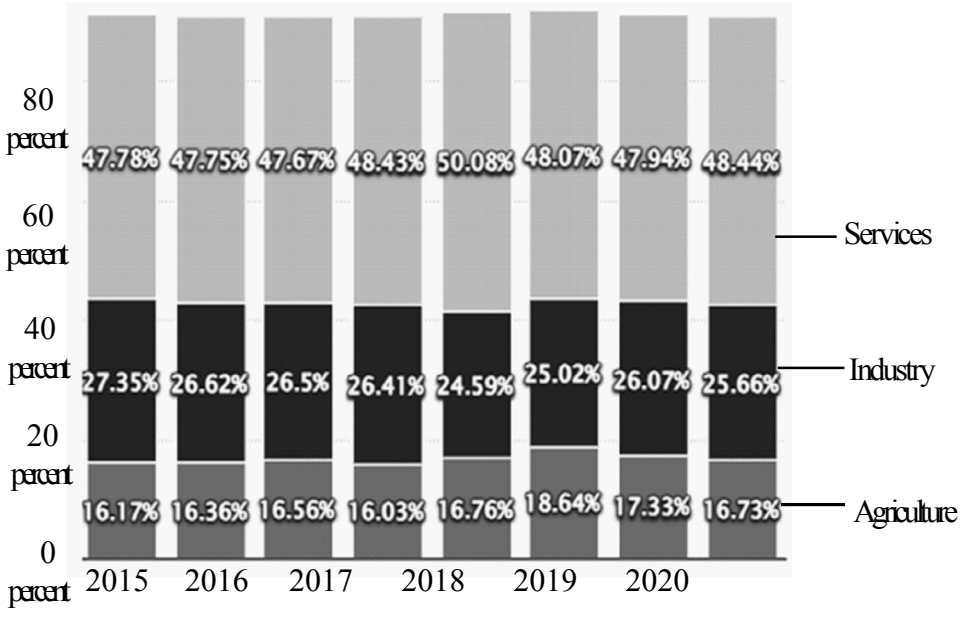
Source:

i) ADB Economics Working Paper Series No. 352: The Services Sector in India; June 2013.

ii) Planning Commission's Indian Economy Related Table 2; December 23, 2014.

Contributions of the three sectors to GDP in recent years. viz., 2015-16 to 2022-23 have been shown in Figure 8.1. The bottom part shows the contribution of the agriculture sector, the middel part shows the contribution of the industry sector and the top part shows that contribution of the service sector. Clearly, the contribution of the service sector has been the highest. The contribution of the industry sector has been higher than the agriculture sector.

Figure 8.1: Distribution of gross domestic product (GDP) across economic sectors from 2015-16 to 2022-23



Source: https://www.statista.com/statistics/271329/distribution-of-gross-domestic-product-gdp-across-economic-sectors-in-india/

Rapid growth of service sector: The higher Compound Annual Growth Rate (CAGR) attained by India in recent years can be taken as the result of expansion of services sector in India.

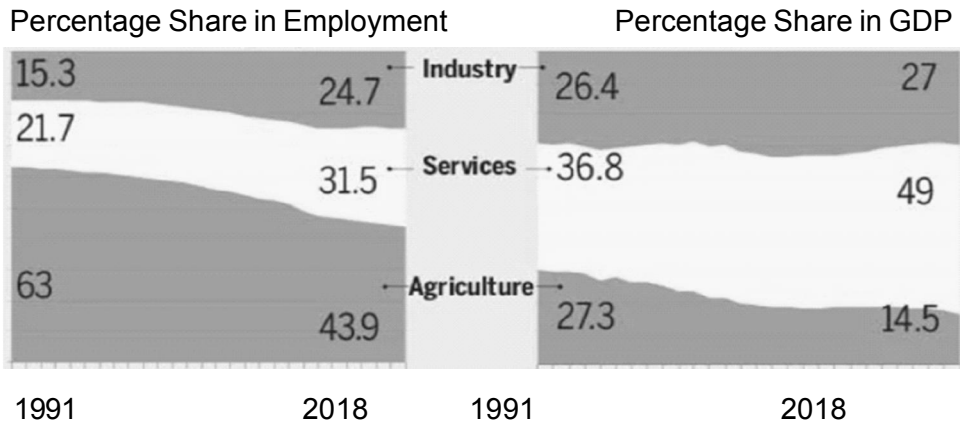
In recent years, the services sector has significantly contributed to Gross State Domestic Product of different states and UTs (Union Territories). Moreover, Tripura, Nagaland, West Bengal, Maharashtra, Bihar, Tamil Nadu, Kerala, Delhi and Chandigarh has recorded a higher share of 55.7 percent to GSDP than other remaining states and UTs. Thus, India has witnessed a horizontally higher share of services sector in GSDP.

Employment generation of services sector: In India, though the primary sector contributes highest employment since ancient time till date, the percentage increase in the employment generation is highest in the service sector. The growth of the employment generation in the primary sector has declined from 64.75 percent in 1993-94 to 53.2 percent in 2009-2010.

According to statistics provided by the NSSO in 2009-10, on the basis of usually working persons in the primary and subsidiary statuses, for

every 1000 people employed in rural areas ,679 are employed in the agriculture sector, 241 are employed in the services sector including construction and only 80 persons employed in industrial sector in India. While in the urban areas of India, among each 1000 people, only 75 people are employed in agriculture sector, 683 employed in the service sector and 242 employed in the industrial sector. Figure 8.2 provides the scenario the different sectors of the economy has contributed towards providing employment and also formation of GDP in two time periods, viz., 1991 and 2018. As we know, in 1991, the Indian economy just adopted the economic reform measures. The changing scenario is quite visible. While the contribution of the industry sector towards formation of GDP has remained the same, but it's shares in employment has increased from 15.3 to 24.7 percentage. You can notice the changes of the other two sectors as well.

Figure 8.2: Share in Employment vs GDP in India (1991 vs 2018)



Source: Percentage Share of Employment vs GDP - 1991 - 2018 : r/IndiaSpeaks (reddit.com)



ACTIVITY 8.1

Based on data presented in Figure 8.2, what changes you notice in the contributions made by the three sectors of the economy towards providing employment and GDP in India in 1991 vis-a-vis 2018? Explain.

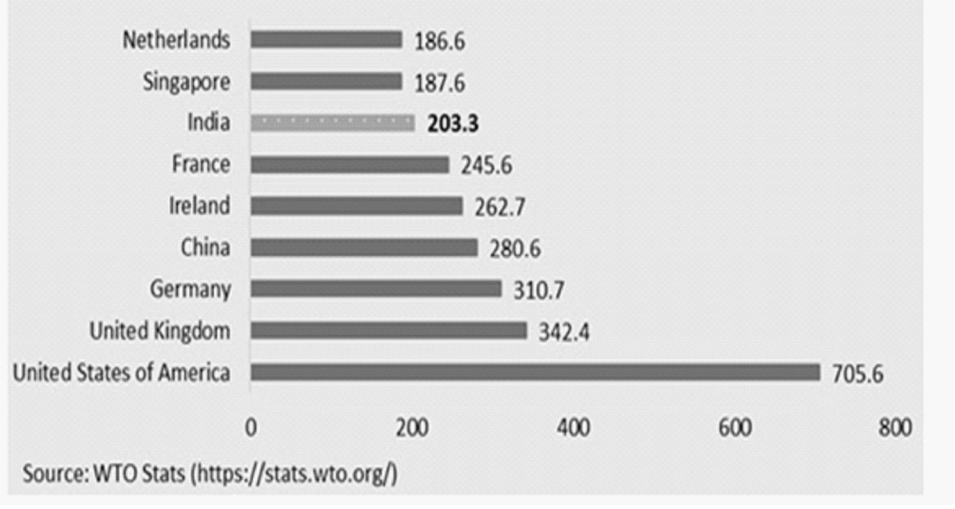
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Contribution of India's service sector towards trade: The service sector plays an important role in India's trade. The share of services exports in the world export has been increasing from 0.6 percent in 1990 to 3.3 percent in 2011. Thus, in recent years, India is moving towards a service led export growth. The merchandised and services export of India has grown from 22.2 percent in 2004-05 to 25.3 percent in 2008-09. Services growth slowed down in 2008-09 as a consequence of global Financial Crisis, but it recovered rapidly in 2010-11. According to the data provided by RBI, the India's services export grew at a CAGR (Cumulative Annual Growth Rate) of 20.6 percent during the period of 2004-05 to 2010-11. India is ranked seventh among the world's major exporters of services, trailing only the United States, the United Kingdom, Germany, China, Ireland, and France (see Figure 8.3).

Figure 8.3: Service exports of Top 10 countries in 2020 (in Billion



It's important to note that, although ranking seventh, India is among the top three nations in terms of average annual growth rate (8.5 percent) between 2005 and 2020, trailing only Singapore (9.7 percent) and Ireland (9.9 percent). In 2020, India accounted for 16.5 percent of Asia's service exports.

Contribution towards human development: Services sector has provided ample scope for human development as it renders many important and valuable services like education facilities, health services, IT and ITeS, tourisms, skill development etc.These services are responsible for the development of the economy through providing empowerment, ensuring high quality of living and formation of human capital. Thus, the services

sector contributes towards human development.

Role in infrastructure development and communication services: The developing countries like India are not infrastructurally compact. Therefore, infrastructural development plays a major role in development of such economies. Transportation, communication facilities are major infrastructural facilities. The contribution of transport, storage and communication services to India's GDP at factor cost is 7.1 percent in 2011-12. Thus, the role of services sector towards infrastructure development via communication services and transportation services in developing countries is very significant.

Role in growth of IT and ITeS: The recent era has witnessed a sharp rise in IT and IT enabled services (ITeS) in India. IT and ITeS sector have introduced India as an image of young and resilient global power.IT and ITeS industry has four major parts as IT services, Business Process Outsourcing (BPO), engineering services and Research and Development (R&D). Among these four components, Indian ITeS and BPO have proved its superiority, sustained cost advantage and fundamentally powered value propositions in the global market. The IT and ITeS industry have established as a full-fledged industry in India. As per the data provided by NASSOCOM, IT and BPO sector (excluding hardware) s' revenue is US $95.2 billion in 2012-13. These sectors have also generated direct employment and indirect employment of nearly 2.8 billion and 8.9 billion respectively in 2012-13.

Role in development of social services: The growth of service sector also generates, expands and develops some social services like sports, cultural services etc. the role of sports in the creation of human capital is very important as it provides physical fitness, uniqueness, bonding (both community and international bonding) etc. Now-a-days, the sports are important for national identity and togetherness. Cultural services includeentertainments, recreational activities, radio and television broadcasting and other cultural services like art, spiritual believes, customs etc. For promoting and preserving all forms of art and culture, the Government of India allocated a total of Rs. 3555 crores in the Eleventh Plan. The cultural services emerged as not only a component of growth and job creation but

also as a vehicle of cultural identity. In 2010, India exported creative services worth of US $ 4 billion at a CAGR of 26 percent. Moreover, the services sector plays an important role in promoting some social services beneficial to the society.

Supports to other sectors: The service sector provide supports to agricultural and industrial sectors through financial services, transport services, software services, communication services, services related to storage facility and distribution etc. Without the interlinkages, cooperation and support among the various sectors, no economy can grow.



CHECK YOUR PROGRESS

Q 3: Which sector of the Indian Economy contributes the most?

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.....

Q 4: What is the difference between the share of service sector to the India's GDP from 1951 to 2014-15?

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8.5 THE RECENT GROWTH OF THE IT AND OTHER SERVICE SECTORS

- **Tourism including Hotels and Restaurants:** Indian tourism is ranked 11th in the Asia Pacific region and 62nd in the world. According to the travel and Tourism Competitiveness report of 2009 by the 'World Economic Forum', India had been ranked 14th for best tourist destination and for its natural resources, 24th for its cultural resources. In India, tourism is the largest industry. Its share to India's GDP is 6.23 percent. It is an employment generating sector as it proves a lot of services like hotelling, tourist transportation cabs, hospitality services etc. It generates nearly 8.78 percent of the total employment opportunities of India. In 2008, the revenue generated through the tourism was about US$275.5

billion. The tourism sector is substantial and vibrant in nature. It is one the most profitable business in India. it is considered as the growth as well as export growth engine in India. This sector witnessed significant growth in recent years.The CAGR of foreign tourist arrivals (FTA) was 7.2 percent in 2006. In the same year, the CAGR of foreign exchange earnings (FEE) was 14.1 percent. The FTAs in 2009 and 2010 were 5.17 million and 5.78 million respectively. The growth of FTAs was 11.8 percentin the year 2010 and it was comparatively much higher than the world's growth of 6.5 percent. The FEEs of Indian tourism were Rs. 64889 and Rs. 54960 inn 2009 and 2010 respectively.

Health tourism is another important sub group under tourism in India. India has the scope of exploring this service in upcoming years. The India is a better destination for health tourism for cost-effective health care services, skilled and experienced health care experts and professionals, better hospitality of paramedical staffs, strong IT sector etc. Now-a-days, India's traditional systems of health care systems such as Ayurveda, Yoga, Siddha, Naturopathy, spirituality are appreciated and adopted by foreigners.

Though India's tourism is an emerging ad fast growing service sector in India, but has faced the ill-impact of slowdown of Indian Economy. The FTAs grew a mere 2.12 percent in the first half of calendar year 2019 which was the lowest for the comparable period in the last four years. The FTAs is 6.08 million during the period January to July, 2019. This is marginally increase as the FTA s during Jan -July, 2018 was nearly 5.96 million. The FEEs also showed a marginal increase to Rs. 1,16,872 during Jan-July, 2019 from Rs. 1,12,481 crores during Jan-July, 2018. In dollar terms, this marginal increase reported a negative growth of 2 percent at $16.75 billion.

- **Services related to Transportation and Communication:** Transportation is one of the major services in India. The share of Transportation (including railway services) in GDP at factor cost was 6.6 percent in 2006-07. In 2011-12, it was 6.2 percent only. As per the Economic Survey, 2021, the logistics industry accounts for 13-14 percent of the country's GDP. The industry’s contribution to the economy is mainly

due to the efficient movement of goods, which helps reduce costs and increase productivity.

With 1.181 billion cellular and wireline subscribers as in September 2023, India's telecom sector is the second largest in the world. India has an overall tele-density of 84.76 percent, of which 58.05 percent is the tele-density of the mainly unexplored rural market and 133.54 percent is the tele-density of the urban market. With 40.62 percent of internet users residing in rural areas, the overall number of internet customers by the end of March 2023 was 881.25 million (narrowband + broadband). (Source: https://www.investindia.gov.in/sector/telecom)

- **Real Estate and Housing Services:** Real estate is one of the major components of services sector in India. Real estate sector deals with housing services. This sector provides many job opportunities and solve the problem of unemployment to some extent. The jobs offered by this sector are construction workers, builders, architects, engineers, interior decorators, plumber, painters, carpenters, property consultant etc. thus, this sector is considered as a employment intensive sector in India. Again, this sector is dealing with the income generating activities as housing can act as asset and it has significant leveraging effect in order to support and supplement other means of income generation.

  Real estate sector includes ownership and dwelling accounted for 7.6 percent share in India's overall GVA (Gross Value Added) in 2015-16. The growth of this sector has been reducing from 7.5 percent in 2013-14 to 4.5 percent in 2015-16. The reason behind may be the ownership and dwelling segment having a share of 6.8 percent in overall GVA decreasing 7.1 percent in 2013-14 to 3.2 percent in 2015-16. The residential sales are also reduced to a five-year low about 2,45,000 units in 2016 across eight cities in India.

  According to a recent report (The Economic Times, 28th Dec, 2023), housing sales in the top 7 cities in India (including New Delhi, Mumbai, Bengaluru, Pune, Hyderabad, Chennai, Kolkata) have created a new peak in 2023, breaching the previous high of 2022 with 4,76,530 units getting sold in 2023 against 3,64,870 units in 2022 rising by 31 percent.

- **IT-BPM Services:** The IT-BPM (Information Technology- Business Process Management) is an important emerging sector in India. In 2016, global IT-BPM market including hardware was US$ 2.2 trillion and excluding hardware US$ 1.2 trillion.The Indian IT-BPM industry is a global powerhouse and its impact on India and world is unprecedented. India pioneered the offshoring model and is today seen as the partner of choice for technology and business solution. This sector recorded a six- fold growth in terms of revenue during the last decade. It is also an employment intensive - sector and it provides more than 3.9 million jobs to the people. It is also an employment supporting sector as it creates employment in other sectors like transportation, hotels, restaurants, infrastructure, security etc. Indian IT-BPM industry comprises over 16000 firms ranging from multibillion-dollar firms to start -ups, many Multi-National Companies (MNCs) including over 4,750 start-ups making India the world's 3rd largest start-up ecosystem. The start-up ecosystem comprises firms catering to mature verticals (e- commerce, aggregators), emerging verticals (fintech, edutech, healthtech etc) and technology specialists around cloud, Internet of Things (IoT), Machine learning, artificial intelligence, robotics, 3D printing etc. US is the major market of India for IT-BPM services followed by UK, Europe (excluding UK) and Asia. As per NASSCOM's estimates, India's total revenue (export and domestic) of the IT-BPM sector including and excluding hardware is expected to touch US$ 154 billion and US$ 140 billion with growths of 7.8 percent and 8.1 percent respectively in 2016-17. The domestic market including hardware and excluding e-commerce is growing at 8.5 percent to reach US$38 billion and excluding hardware and e-commerce is growing at 10.4 percent to reach US$ 24 billion.

  India's software exports were growing robustly at 27 to 38 percent from 2002-03 to 2007-08. But this growth is slowed down in recent years. As per RBI's data, the software exports fell by 0.7 percent to US$ 73.7 billion compared to US 74.2 billion in 2015-16.

- **Construction Services:** The construction service is one of the most important and emerging sectors in India. this sector is gaining importance

over the years as it is considered as an important indicator of growth and development. It creates a lot of investment opportunities and accelerates the production capacity of an economy. The share of it to the India's GDP at factor cost was 6 percent in 2000-01. In 2008-09, it was 8.2 percent and in 2011-12, it was 8.2 percent. The construction service includes construction of bridges, roads, buildings, bridges, dams etc. the growth of it decelerated from 5 percent in 2015-16 to 1.7 percent in 2016-17. This sector was given the industry status in 2000. The government takes many steps to promote this industry. As a result of these steps, more private ownership of Build- Operator -Transfer (BOT), Build- Operate -Own -Transfer (BOOT) and Build-Operate-Lease-Transfer (BOLT) projects have been taken up in this sector.

- **Banking Services:** Within the services sector financing, insurance, real estate and business sectors are most dynamic sector in the economy in recent years. The role of banks especially in developing country is important, crucial as well as critical for overall development of the economy of the country. Indian banking system is very vibrant and has a wide scale of operation. It consists of 27 public sector banks, 21 private sector banks, 49 foreign banks, 56 regional rural banks, 1562 urban cooperatives banks and 94384 rural cooperative banks. Banking sector is one of the fastest growing sectors in the country. This is evident from the fact that total banking sector assets including public and private sector banks have increased at compound annual growth rate (CAGR) of 6 percent to US $2.3 trillion during 2013-14. The surge in credit provided by the banking sector at large has contributed a lot to the high growth of performance of Indian economy during the period 2003-2008. During this period, total credit grew at around 20 percent year to year basis which however plummeted to 15 percent in 2014 basically due to world financial crisis in 2008-1. Since 2014, credit growth has been slow and went down to around 7 percent on an average in 2016-17.

  While discussing the banking sector special mention must be made to the public sector banking in India. PSB was ushered into in India when State Bank of India came into being in 1955. After that, in 1969, 14 major

private banks were nationalised. Again in 1980, other 6 private banks were nationalised. In the beginning there were 8000 branches of banks with total deposits of Rs. 5000 crores, but now, there are 90,000 bank branches with total deposit of Rs. 85,00,000 crores in India, while credit extended by the public sector banks have gone up to Rs. 60,00,000 crores.

8.6 MAJOR ISSUES FACED BY THE SERVICE SECTOR

- Wage inequality is one of the major challenges in services sector. the skilled and efficient workers in the services sector get higher wages as compared to the other sectors of the economy. But low skilled workers have faced disadvantage as low income.
- The different sub sectors of services sectors are impacted differently by the demonetisation. The tourism sector is not much affected by the demonetisation.Bank credit by commercial Banks also increased after demonetisation. There is fall in property registration in post-demonetisation. But there was not much change in property prices. It has positively impacted upon the sub-sectors like IT industry, insurance sectors etc. thus, the impact of demonetisation on services sector is mixed and temporary in nature.
- The Goods and Services Tax (GST) launched on July 1, 2017 in India. It has significant impact on the growth of services sector in India. The reason is that it affects the valuation of the service categories, their operations in each state through multiple returns filing, and stringent tax compliance. There are some of the major challenges faced by the services sector under GST like multiple tax slabs (5 percent, 12 percent, 18 percent and 28 percent), multiple registration of place of business, filing multiple return (filing returns three times in a month) etc.GST has helped the services sector in many ways like avoiding confusion as pre-GST, both Central and State Govt. had the right to collect the tax which was leading to confusion in finding out to whom the tax is to be paid for services like software, works contract etc. resulting in disputes between

Central and State Governments. However, the major difficulty is registration of Place of Business as agents will have to register in all states that they operate in and file in each of them in the GST regime. There are also issues of GST network, as, in the GST network, not more than 100 branches of Bank can register. In the case of Healthcare Services, while there are no taxes on health care services, the input tax credits are not available for the very reason that healthcare services are exempt from GST.

- There are also some early results of GST affecting services with 24 states abolishing check posts while others are in the process, resulting in reduction in transportation cost, fuel use and fall in congestion. There has also been better tax compliance with 71 lakh central and state taxpayers having migrated to the Goods and Services Tax (GST) system and 15 lakhs new tax payers having been registered.
- In case of construction of Greenfield Airports, there are many factors that affect the construction such as acquisition of land, availability of mandatory clearances, financial closure etc by the individual operators.
- There are many challenges faced by the tourism sector in India. the FTAs decline in the first half of 2019. The main reason behind this are as follows:
  - Brexit in the US.
  - Recession fears in large parts of Europe and the US.
  - Heightened tensions between India and Pakistan.
  - Shutdown of Pakistan air space for India-bound flights led to an increase in travel time and air fare.
  - High Visa charges.
  - Strong competition from tourist destinations such as Sri Lanka, Thailand, Malaysia, Vietnam etc.
- One of the main issues of the services sector is that the majority of services are operate under unorganised sector. thus, the actual estimation is not easy. Again, as the majority of jobs are confined to the unorganised sector, there is no job security, no uniform salary and wages etc.

- It is costlier for start-ups in the services sector in India as majority of labour force in India are not properly skilled.
- In India, the operating costs of a shipping company are high. Thus, high taxes are to be paid in India than overseas and therefore foreign shipping companies do not prefer to flag their ships in India.
- There is an issue of terms of shipment with a majority of India's bulk imports being done on C&F/CIF basis despite the policy of imports on FoB basis and the Indian companies not even getting the benefit of ROFR in these trades with the result that the share of Indian flag vessels in India's bulk imports is limited.

8.7 SUGGESTIVE POLICY MEASURES

Some of the policy suggestions to improve the performance of the tourism, real estate and banking sectorsinclude the following:

- **Tourism:** There is need to make India Tourism friendly and Tourist safe Country. There is an urgent need to create a special Tourist Protection force besides maintaining cleanliness hygiene and ambience of acceptable standards. Good Tourism Infrastructure including beautifying riversides passing the middle of cities, providing accommodation for tourists by increasing the number of hotel rooms and improving infrastructure in important tourist sites by privatization of some areas of infrastructure. There is also a need for further improvement in E-Visas and Immigration procedures. India is presently emerged as medical hub with lots of sophistication compared to many developing countries. Therefore, there is another area for promoting Medical Tourism by facilitating imports for hospitals providing medical tourism and providing a package of services for medical tourists including state of the art medical facilities, ambulance services at airports, airlifting of medical tourists to hospitals by helicopters and fast track clearance of medical visas, immigration and other formalities.
- **Real Estate Services:** As we all know that Housing and Infrastructure sectors are very important as they have direct impact on social and economic development generating varied employment opportunities

ranging from unskilled, semi-skilled and skilled labourers to professionals and experts. Some of the issues and challenges affecting growth in real estate and housing sector include the delay in approvals of permits; high land registration costs including stamp duty; rising debt levels and NPAs; lack of skilled workforce; need to implement the single -window clearance for construction permits in all states on top priority; higher risk provisioning assigned to real estate sector by the RBI and dwindling profits in the real estate sector; GST Issues, like all components of construction except bricks being charged at the highest slab of 28 percent GST which needs a relook; delay in payment for Government projects; funding problems for land acquisition; and need for new financing instruments including expanding the Secondary Market and considering the feasibility of Covered Bonds. In this context there is an urgent need to revitalise this sector on priority basis so that India can arrest unemployment to a great extent.

- **Banking sector:** As noted above India's banking sector is one of the vibrant sectors in the umbrella of services sector. The major issue with the banking sector today is the growing volume of Non-performing Assets (NPAs) known as bad loans and inefficiency in bank management especially with the PSBs. In order to strengthen the banking sector, a slew a measures have been taken recently of which the prominent one is the merger of the banks. However, there are two sides of opinion about this mega bank merger policy. If you are interested, you can browse through the Net or read leading financial newspapers to learn about the different debates into it.



8.8 LET US SUM UP

- The service sector is the sector which provides services. In an economic sense, services are any functions or tasks that are performed for which there is a demand and hence a price determined in the relevant market. Services are consumed at the point of production and they are usually non-transferable.
- In the traditional economy, there are mainly three sectors: primary

sectors, secondary and tertiary sector in the economy. Primary sector includes the activities related to agriculture and allied services, secondary sector includes industrial activities and the tertiary sector includes the services provided by trade, hotels and restaurants; transport storage and communication; financing, insurance, real estate, and business services; community, social and personal services.

- Over the years, the share of services in Gross Domestic Product (GDP) of India has been rising consistently whereas the share of agriculture is sharply declining and industrial growth rate has remained more or less stagnant. For instance, between 1950-51 and 2013-14 the share of Agriculture in GDP has declined from 53 percent to 13.9 percent whereas the share of services sector has increased from nearly 30 percent in 1950-51 to 59.9 percent in 2013-14.
- Recently, service sector has emerged as leading sector of India as it provides major contribution to India's GDP and second largest employment providing sector after agriculture sector.
- There are many challenges faced by the service sector of India. These are: the majority of services are operating under unorganised sector, wage inequality, high cost for start ups in the service industry, impact of GST and demonetisation, impact of international relations and issues etc.
- Some concerted steps should be taken by the Government of India for upgradation of services sector of India. There are some other services like Super Specialty healthcare, Satellite Mapping, Professional services etc where India has high potential to grow and India has the necessary competence to provide them cost efficiently. The health tourism can be good choice where India has a lot of potentials.



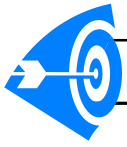
8.9 FURTHER READING

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2) Mukherjee, D. (2019). *Indian Economy Since Independence.* Kolkata: New Central Book Agency (p) Ltd.

3) Kapila, U. (2016). *Indian Economy Since Independence.* New Delhi: Academic Foundation

4) Malayala Manoroma. (2018). *Manorama yearbook 2018.*

5) Pratiyogita Darpan, Extra Issue on General Studies Indian Economy 2019.



8.10 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: The service sector is the sector which provides services.

Ans to Q No 2: Primary sector includes the activities related to agriculture and allied services.

Ans to Q No 3: Recently, service sector has emerged as leading sector of India as it provides major contribution to India's GDP and second largest employment providing sector after agriculture sector.

Ans to Q No 4: The share of tertiary sector to India's GDP has increased from almost one third of total GDP in 1950-51 to 50.1 percent in 2014-15.



8.11 MODEL QUESTIONS

Short Questions (Answer each question in about 150 words)

Q 1: What is service sector? Give examples.

Q 2: What is arbitrage? Is arbitrage possible with services?

Q 3: What is the recent share of service sector to India's GDP?

Q 4: Discuss the recent growth of various sub sectors of service sector in India.

Q 5: What are the major challenges faced by the Indian service sector? Explain.

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

Q 1: Compare the share of three sectors of India from the time of Independence to till date.

Q 2: Discuss the major challenges in the tourism sector in India?

Q 3: Discuss certain measures betterment of tourism sector in India?

Q 4: Do you think that there is any potential for health tourism in India? If yes, explain.

Q 5: Discuss about the IT-BPM industry in India.

Q 6: Are you aware of the changes that have taken place in the Indian service sector due to the GST?

Q 7: What is the impact of demonetisation on service sector in India? Discuss briefly.

Q 8: What do you suggest for the improvement of Indian service sector?

Q 9: Explain the role of banking sector in the growth of services sector in India?

Q 10: State three cases for and against merger of Public Sector Banks in India?

Q 11: Explain the significance of tourism sector in the overall growth of services sector in India? Suggest a few policies for improvement of tourism sector in India.

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UNIT 9 : UNORGANISED SECTOR, LABOUR LAW AND LABOUR POLICY

UNIT STRUCTURE

9.1 Learning Objectives

9.2 Introduction

9.3 Unorganised Sector and India's Informal Economy

- 9.3.1 Size of the Informal/Unorganised Sector
- 9.3.2 Features of the Informal/Unorganised Sector
- 9.3.3 Major Issues of the Informal Sector
- 9.3.4 Suggestive Measures

9.4 Present Status of India's Agricultural Labours

9.5 Major Recommendations of the National Commission of Rural Labours

9.6 Industrial Labours

- 9.6.1 Definition
- 9.6.2 Features of Industrial Labours

9.7 Trade Union Movement in India

- 9.7.1 Growth of Trade Union in India
- 9.7.2 Weaknesses of Trade Union in India

9.8 Industrial Disputes

- 9.8.1 Causes of Industrial Disputes
- 9.8.2 Settlement of Industrial Disputes

9.9 Social Security Measures introduced for the Welfare of Labours

9.10 Problems of Labour Market and Suggestive Measures

- 9.10.1 Definition of Labour Market
- 9.10.2 Problems of Labour Market
- 9.10.3 Suggestive Measures

9.11 Let Us Sum Up

9.12 Further Reading

9.13 Answers to Check Your Progress

9.14 Model Questions

9.1 LEARNING OBJECTIVES

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

- know the outline of the unorganised sector and India's informal economy
- describe the present status of agricultural labours in India.
- discuss the major recommendations of National Commission of Rural Labours
- put forward the concept, characteristics and issues related to industrial labours in India
- discuss the establishment goal, growth and trend of trade union in India
- point out the Reasons of industrial disputes and measures for dispute settlement
- discuss how to enhance welfare of Indian labour with the help of social security measures.

9.2 INTRODUCTION

In this unit, we will discuss issues of India's unorganised sector in the larger context of informal economy of India. As we all know Indian economy is agrarian and rural in nature. Alongside the formal economy, there is preponderance of unorganised as well as non-monetised sectors in the rural economy of India. Though the exact estimate of the contribution of these sectors to India's GDP growth has not been available, this engages a huge number of uneducated-unskilled workers and gives livelihood to many poor households. However, this sector suffers from various types of problems which needs to be addressed on priority basis. There is urgent need to devise strategies for formalisation of this sector with a view to generate employment. In addition to discussion on the nature and various dimensions of informal economy, thisunitalso covers a detailed discussion on nature, challenges and issues related to Indian labour market, trade union movement in India, industrial disputes, settlement of industrial disputes, recommendations of NCRL, social security measures etc.

9.3 UNORGANISED SECTOR AND INDIA'S INFORMAL ECONOMY

In India, the informal sector is commonly referred to as the 'unorganised sector' and the workers working in them referred to as 'unorganised workers'. The term 'informal economy' is used to represent the informal/unorganised sector and informal/unorganised workers. Informal sector workers are characterised by low educational level, poor financial capacity, possessing at best low-end skills, inferior working conditions and low bargaining capacity due to lack of the organisational skills. Workers in the informal sector receives low wages and if they are self- employed, their income is usually very low. The term informality or unorganised does not imply a particular mode or location of labour used. It covers a wide range of workers whether it be in self-employment, in casual wage employment and in regular wage employment, just as it can be in urban as well as in rural areas. Informal labour is a labour whose use is governed neither by state regulations nor by collective agreements between workers and employers. Informal labour has been viewed as labour engaged in urban small-scale enterprise as self-employment as labour engaged in traditional activities, as wholly unskilled labour, and as labour whose use is not subject to any rules or norms. In rural areas, the bulk of the informal sector workers comprise of landless agricultural labourers, small and marginal farmers, sharecroppers, persons engaged in animal husbandry and fishing, forest workers, toddy tappers, workers in agro-processing and food processing units, artisans such as weavers, blacksmiths, carpenters and goldsmiths, etc. On the other hand, the urban informal sector workers comprise of manual labourers in construction, carpentry, trade and transport, small and tiny manufacturing enterprises and persons who work as street vendors and hawkers, head load workers, rag pickers, etc.

Globally, the term informal sector was first mentioned in the report of Kenya Mission in 1997 by the International Labour Organisation (ILO). After that this concept became important. The National Commission for Enterprises in the Unorganised Sector (NCEUS) has defined the informal/

unorganised sector as all unincorporated private enterprises owned by individuals or households engaged in the sale and production of goods and services operated on a proprietary or partnership basis and with less than ten workers. The NCEUS has also defined the informal workers as "Unorganized workers consist of those working in the unorganized sector or households, excluding regular workers with social security benefits, and the workers in the formal sector without any employment and social security benefits provided by the employers".In the informal sector workers are not administered with social security benefits and employment concession like the employers provide to their workers in the formal sector. These definitions clearly indicate that the sector consists of all those works which do not fall under the jurisdiction of the government of the state and were the employment interaction ensures no legal way of conduct. In this sector there is no such like fitting procedure of recruitment, selection, promotion, and social safety and development of employee.

9.3.1 Size of the Informal/Unorganised Sector

The economy of India is characterised by presence of unorganised or informal sector. A large portion of Indian labours are engaged in unorganised sector in India. A clear distinction between the organised and unorganised sector is made by the National Commission for Enterprise in Unorganised Sector (NCEUS). According to NCEUS, the unorganised sector is the sector where the enterprises employ less than 10 workers. Again, NCEUS has provided a clear distinction of organised and unorganised workers. the unorganised workers are those who employ in whether organised or unorganised sector are not covered under social security measures.

According to the NCEUS report in 2005, out of total employment of 458 million, 395 million are engaged in unorganised sector which accounted for almost 86 percent of total employment in India. According to the National Sample Survey Organisation (NSSO), in 2009-10, out of 46.5 crore workers, 43.7 crore workers are engaged

in unorganised sector. The composition of employment in the organised vs unorganised sector was in the proportion 13:87 in 2004-05 and 17:83 in 2011-12 indicating an increase in organised sector employment from 13 per cent in 2004-05 to 17 per cent in 2011-12. But this increase in organised sector employment was informal in nature (48 per cent in 2004-05 increased to 55 per cent in 2011-12) while the share of organised formal employment decreased (52 per cent in 2004-05 decreased to 45 per cent in 2011-12). But in the unorganised sector the share of formal employment marginally increased from 0.3 to 0.4 per cent and that of informal employment declined marginally from 99.7 to 99.6 per cent. On the whole, the number of formally employed increased from 33.41 million in 2004-05 to 38.56 million in 2011-12. Estimates of total employment in the organised and unorganised sectors, including formal and informal, in some recent years have been shown in Table 9.1.

Table 9.1: Employment Scenario in the Organised and Unorganised Sectors (Usual Status)

(Figure in Crores)

Type of Employment	Organized	Unorganized	Total
2017-18			
Formal	4.43	0.28	4.70
Informal	4.62	37.79	42.43
Total	**9.05**	**38.07**	**47.13**
2018-19			
Formal	4.91	0.45	5.35
Informal	4.55	38.87	43.43
Total	**9.46**	**39.32**	**48.78**
2019-20			
Formal	5.09	0.80	5.89
Informal	4.46	43.19	47.64
Total	**9.55**	**43.99**	**53.53**

Source: Economic Survey 2021-22 (Estimated using PLFS 2017-18, 2018-19 and 2019-20 Surveys)

From Table 9.1 it can be seen that nearly 90 percent of the additional workers that joined in 2019–20 were in the informal sector, and over 98 percent worked in the unorganised sector. Ninety-one percent of the additional labour force was employed in the unorganised, informal sector.

9.3.2 Features of the Informal/Unorganised Sector

The main features of informal/unorganised sector of India are as follows: -

- **Low level of education:** The lack of proper education and training of workers engaged in the informal sector is the main feature of informal/unorganised sector in India. The skill gained by these workers are from outside the formal education and vocational training. The informal or unorganised sectors are only the job providing avenues for them. They are not capable of finding any job in the formal sector as they are not efficient as well as there is lack of professionalism in them. Thus, there is no alternative choice available for them other than engaged in the unorganised sector.
- **No job security:** There is no job security associated with the jobs in the informal or unorganised sector. the NCEUS has classified the workers as formal and informal on the basis of job security. The workers working in the informal sector are not provided any job security. This is one of the main characteristics of informal sector in India.
- **No regular job:** The jobs provided by the informal sector are not regular in nature. The jobs are available on the basis of the requirement of the workers by the employers. When there is no need of workers then the workers are asked to leave the job without providing any reason. Thus, the jobs are temporary in informal sector and it is in favour of employer only. This is another salient feature of informal/unorganised sector in India.
- **Workers are paid on daily basis:**The socio-economic conditions of workers engaged in informal sector are so deplorable that they required to be paid on daily basis. They are exploited by their employers. They are paid low wages, no any work security, women and child labours are even paid lower than male counterpart etc.

- **Easy entry:** The entry in the informal/unorganised sector in not closed. It is easy in the sense that who want a job in this sector can find some sort of job easily though the wages are low and paid on daily basis. Thus, easy entry is another feature of informal sector.
- **Absence of legal framework:** This sector remains outside the existing labour laws of an economy. This makes their jobs insecure and vulnerable. The fate of these workers remains mostly with the mercy of employers.
- **Low scale of operations:** The scale of operation of the informal sector is very low. The level of investment, technology used and income generated are very much low.
- **Lack of access to institutional finance:** Small and micro enterprises under informal sector do not have access to finance from formal banking and non-banking financial institutions as they are not registered.

9.3.3 Major Issues of the Informal Sector

In India, people engaged in informal sector are mainly poor in terms of education, skill, capital etc. Since alternative source of employment and income in formal sector is limited for these unskilled workers, they end up in informal sector mainly as source of livelihood. Besides, the employment growth in the organized/formal sector has always been less than the total workforce available in the country resulting in a faster growth of employment in the informal sector. The large-scale migration of unskilled people from rural to urban areas has also resulted in burgeoning expansion of informal sector. This sector remains outside existing taxes and labour laws of the economy which stand as stumbling block in availing social security and job security. Since these enterprises are not registered, they do not have access to finance from formal banking and non-banking financial institutions.

9.3.4 Suggestive Measures

Informal sector in India is quiet large in its size and operation. It comprises mainly of a large number of poorly educated labour force, traditional occupations, poor financial inclusion and lack of motivation or aspirational skills. Therefore, any approach undertaken to address issues of informal or unorganised sector must take into account all these aspects. A holistic approach is needed to address the issue. Following suggestions can be made in this regard.

- There is a need to create a congenial environment which will encourage micro and small enterprises to register and realize that any cost of formalization is associated with number of benefits like access to finance, better infrastructure, market information, government incentives, a platform for formal association, providing them legal framework, efforts to overcome uncertainty in financial returns and safety nets for them as well as their workers.
- As corollary to the above, this will inculcate a tradition of regulatory compliance in terms of taxes and labour laws. Once registered, this besides expanding tax base of the country will also help government finance minimum social security cover for workers in unorganised sector.
- Moreover, the process of formalisation will lead to an improvement in skill levels of the workforce that match the requirements of the job market and at the same time improve the bargaining power of the workforce to settle for decent wages, social security and job security.
- Since workers engaged in unorganised sectors are less educated and unskilled, some special training is necessary to impart state of the art skill so that these workers can be gainfully employed in organised sectors.
- Some social security arrangement should be made for informal/ unorganised workers in addition to present measures which are considered to be not sufficient.

9.4 PRESENT STATUS OF INDIA'S AGRICULTURAL LABOURS

India is an agrarian economy employing nearly 50 percent of the total labour force of the country. Out of this, a sizeable amount of workforce are agricultural labourers. But whom to be called as an agricultural labour. The first attempt in defining an agricultural labour was made in 1950-51 by the Agricultural Labour Enquiry Commission. According to this commission, all those who accept wage employment in any crop raising activity are to be treated as 'agricultural labourers. This definition has not scientific basis in as much as most workers in India do not succeed in getting wage employment. This committee has introduced a new term 'agricultural labour household. The bread earner of a family of 50 percent or more of the income earners of a joint family take agricultural labour as the main occupation, the family has to be classified as agricultural labour household. This definition also includes rural artisans, small and marginal farmers in agricultural labourers. The attempt was made by the Agricultural Labour Enquiry Commission of 1956-57. This commission adopted a slightly broader definition as it also included certain allied activities like animal husbandry, dairy, poultry, piggery, pisciculture etc. under agricultural operations. But the Census of 1961, included all those who worked on others' land and receive compensation either in cash or kind (or partly in cash and partly in kind) were treated as agricultural labourers. The Census of 1971, defined agricultural labour as those people whose main occupation was working on the farms of others. Though, this definition provided by the Census of 1971 was considered to be quiet, but it was most accepted one in the context of India. Generally, workers who are involved in farm activities are known as agricultural labourers.

The agricultural labourers are most vulnerable sections in India. They are lacking of skill, proper education, training etc. andthus, productivity is very low. In some cases, their productivity becomes or falls below zero giving rise to disguised unemployment. Thus, their income is too low to obtain the minimum standard of living. Therefore, this class is socially as

well as economically backward. They are also subjected to exploitation and are the most oppressed class in India. In the early times, like prior to independence the condition i.e., social and economic status of agricultural labours is very painful. Their conditions were not better than beggar (or forced labour). They were also considered as bonded labours and were forced to work as serf or slave. They did not even get money wages for their labour. Thus, they are impoverished section. However, as a result of concerted policy efforts by the government under its various development plans the conditions of agricultural labourers have been improving. But still it is not adequate.

Though the agriculture sector provided the bulk of employment in India even taody, (See Chapter 4), yet, the exact statistical data on agricultural labours in India are not available. In 1960, according to the second Agricultural Labour Enquiry (ALE), about 25 percent of rural populations were engaged as agriculture labourers and more than 85 percent of the rural workers are casual, serving any farmer who is willing to engage them and only 15 percent of agricultural labourers are attached to specific landlords. ALE also came up with the findings that most of the agricultural workers don't have land holdings and even they have, the size of the land is very small. Regarding social status of the agricultural labourers ALE found that they mostly belong to lower caste viz. schedule tribes, schedule caste and other backward classes. In 1961, total number of agricultural workers was 31 million. According to the estimates of the National Commission on Rural Labour (NCRL) in 1991, the total rural household is 108.4 million out of which 43 million are rural labour households and among them 33.3 million are agricultural labour households in 1987-88 which was almost 77 percent of rural households, is agricultural labour households.



LET US KNOW

- Agriculture labours can be categorised as -

a) Landless Labours who are attached to the landlords.

b) Landless labours who though independent but work exclusively for others

c) Small farmers with tiny pieces of land who out of economic necessity have to devote most of their time to working for others.

d) Farmers who although have economic holdings but some members of their family work for other farmers.

- **Contract labour:** the labour of workers whose freedom is restricted by the terms of a contractual relation and by laws that make such arrangements permissible and enforceable. Contract labour is hired, supervised and paid wages by the contractor.

9.5 MAJOR RECOMMENDATIONS OF THE NATIONAL COMMISSION OF RURAL LABOURS (NCRL)

The National Commission on Rural Labour (NCRL) constituted under the chairmanship of Dr. C. H. Hanumanth Rao in 1991.It is the most significant step towards the welfare of rural labour. made a strong recommendation for a national minimum wage for rural labour. They deplored the wide variations in the minimum wages prescribed for unskilled workers in agriculture by various State Governments, and laid down the following principles for fixation of minimum wages: (a) the cost of living relating to the minimum subsistence level for the worker and his family of three adult consumption units, and (b) the minimum wage will be the same for all employments. The National Commission on Rural Labour thought that the application of these principles would naturally bring about uniformity in the minimum wages throughout the country irrespective of the authorities notifying the wage. The Commission called this the basic minimum wage applicable for the country as a whole, and no wage should be fixed or permitted below this level. This is to be distinguished from the minimum wage which may be notified above this level under the Minimum Wages Act by different State Governments. Differences in the wages arrived at on the basis of cost of living would be accounted for only by the differences in the

comparative cost of living between various regions in the country.

In India, there is inequality in agrarian structure and increasing polarisation in Indian agriculture. It has been observed that there is a growing tendency on the part of the small and marginal farmers to sell their land holdings to big farmers. This is mainly because of the fact that though the modern technology is scale neutral, the small and marginal farmers find it difficult to adopt it due to capital scarcity. In the words of NCRL, "the new technology, being market oriented and capital intensive, has mainly favoured the big peasants, small farmers not possessing the required resource base or requisite knowledge and risk bearing capacity have lagged behind the adoption of technology. Small and marginal farmers are therefore, placed at a disadvantage vis-à-vis the big owners and sometimes economic pressures might have forced them out to join the swelling ranks of agricultural labourers."

There are various measures suggested by the NCRL to improve conditions of rural labourers.

A few important measures are listed below.

- To create and/or strengthen infrastructure of irrigation, drainage and flood control and rural electric supply as well introduction of dry farming technology, which will result in increasing agricultural productivity and employment.
- This is very necessary that employment generation programme should be undertaken to absorb the excess supply of labour for agricultural operations and in turn, it will increase the income of the agricultural labourers. Thus, enforcement of minimum wages and social security are the essential components of employment programmes.
- Agricultural labourers should be provided with house sites and homesteads not only to meet their basic need but also enable agricultural households to take up supplementary land-based activities like poultry, dairy etc.
- There is an urgent need for a Central Legislation to cover agricultural labour. This legislature should provide security of employment for agricultural labour, payment of prescribed wages and machinery for the

settlement of disputes. This legislature should also include the social security measures and welfare schemes for development of agricultural labourers.

- This commission recommends constitution of a separate department for rural labour at the Central and the State levels with the functionaries below the State level as well.
- It recommends establishment of Agricultural Labour Welfare Fund to provide assistance to women agricultural labour for maternity leave for two surviving children, old age pension at the Rs. 100 per month and death and injury compensation.
- This commission endorses the provision for enabling formation of trade unions and agricultural labourers to carry on their activities under applicable laws.



LET US KNOW

- The National Commission on Rural Labour was established in 1991 under the chairmanship of Dr. C. H. Hanumanth Rao.
- Rege Committee: Labour Investigation Committee (also known as Rege Committee) is a committee for the development of Labour Welfare in India. The formation of Rege Committee was the second most significant in India for development of labourers. It investigated the matter of employment, wages, housing safety, education, social conditions of labour and other welfare measures in details.
- The first National Commission on Labour was set up on 24th December 1966 under the Chairmanship of P.B. Gajendragadkar. The Commission submitted its report in August, 1969 after detailed examination of all aspects of labour problems, both in the organised and unorganised sectors.
- The second National Commission on Labour (NCL) was set up on 15th October 1999 under the chairmanship of Ravindra Varma which submitted its report to the then Prime Minister Atal Bihari

Vajpayee on 29 June 2002.

- **NCEUS:** National Commission for Enterprise in Unorganised Sector.



CHECK YOUR PROGRESS

Q 1: What is meant by unorganised sector?

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Q 2: Write the full form of NCEUS?

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Q 3: Write the full form of NCRL?

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Q 4: Define informal workers.

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9.6 INDUSTRIAL LABOURS

9.6.1 Definition

It refers to all those workers, who are employed in manufacturing units, i.e., the workers employed in large scale, village &small-scale industries are considered industrial labour in general sense.

9.6.2 Features of Industrial Labours

- **Low literacy:** In India majority of industrial labourers areilliterate and thus they are ignorant of information regarding emerging job market. In deed the low level of literacy is considered to be one of the major drawbacks of Indian industrial labourers.
- **Large scale absenteeism:** Absenteeism in workplace is another major problem of Indianindustrial labour.

- **Low productivity:** The productivity of industrial labour in India is very low. This is mainly due to lack of skills, training, education, poor health etc.
- **Low efficiency:** The efficiency as well effectiveness of Indian industrial labourers is also very low.
- **Poor physical and mental health:** The physical and mental health should be good to work efficiently and productively. But the lack of proper nutritious diet and living in unhygienic conditions due to poverty lead to poor physical and mental health.
- **Poverty:** Most of the Indian labourers are poor in absolute sense.
- **Lack of organisation:**The Indian industrial labourers are not united due to difference in religion, castes, creed etc.
- **Migration:** The Indian labourers are migratory in nature that means they are not restricted to any one occupation or any region. For example, the labourer migrated to industry from agriculture also go back to later in the harvesting seasons. This affects industrial production and productivity of Indian industrial labourers.
- **Lack of information:** the Indian industrial labourers are not aware of the facts and information's about the job and labour market opportunities due to their low-level educational attainment. This could lead to non-specialisation of work.
- **Superstition and religious belief:** The Indian labourers are superstitious and it adversely affects their job selection and productivity. Thus, their behaviour is not rational.
- **Ignorant of rules and regulations:** Most of the Indian industrial labourers are ignorant of rules and regulations associated with their job due to lack of proper education.
- **Lack of skills and specialisation:** Lack of skills and specialisation lead to inefficiency in production. This is an important feature of Indian industrial labour.
- **No punctuality and discipline:** In India, most of the industrial labourers are not punctual as well as discipline. They do not know to value time. As labour is one of the perishable

commodities, one worker unemployed for a day, his or her labour is lost. Thus, labour cannot be postponed, stored and accumulated for future.

- **Bad habits:** The industrial labours of India are mostly involved in bad habits like tobacco chewing, inhaling marijuana, drinking liquors etc. They are involved in unhealthy practices. As a result, their efficiency and mental discipline are badly affected.

9.7 TRADE UNION MOVEMENT IN INDIA

A trade union is described as a voluntary organization of workers formed for the purpose of promoting and protecting the interest of workers through collective action.

9.7.1 Growth of Trade Union in India

If we look at the history of trade union movement in modern industrial relation in India, the trade union of textile works of Bombay that came into existence in 1890 is the first of this kind. However, the real beginning of the trade union movement in India can be traced back towards the end of 1st world war (1914-1918) only. The formation of Madras Trade Union in 1918 immediately after the Russian revolution of 1917 was marked by an organised trade union movement in India. After this, India witnessed formation of many trade unions of which mentioned may be made to All India Trade Union Congress which was formed in 1920 followed by All India Railway Men Federation & All India Post & Telegraph Unions which were formed in 1922.

In India, S. S. Bangalee and M. Lokhande had successfully formed the trade union in the last part of nineteenth century. In the first quarter of twentieth century, the working class of India had experienced the emergence of trade union. The main motive of formation of trade union is to facilitate the rights of working class in India. With the emergence of modern Industrial development, the working class had realised the importance of trade union as a mean to avail better working

conditions, high wages, concessions etc. Thus, strikes were frequently occurred. As a result of these growing number of strikes, All India Trade Union Congress (A.I.T.U.C) was established in 1920. Protection and representation of workers' interests, maintain coordination and co-operative relations among the activities of various labour organisations were the major area of concern of A.I.T.U.C. It also took into account the unorganised areas of the country. The government of India passed the Trade Union Act in 1926.

Due to the ideological differences, the trade union splits into two parts in the last part of 1920s. The communists captured A.I.T.U.C, while moderates formed All India Trade Union Federation. Again, there was further partitions of trade union movement in the emergence of Great depression of 1930s. Before emergence of second world war some parts of trade union were re-unite but the outburst of war led to further and more severe divisions of trade union movement in India. After independence accompanied with the partition, the trade union movement faced very serious issues of growing unemployment. Thus, to protect the interest of workers, strikes held all over the India. At that time India experienced highest number of strikes which adversely affected growth of the economy. This situation ultimately led to formation of three central organisations: Indian National Trade Union Congress (INTUC), which was formed in 1947 and it was controlled by the Congress party, Hind Mazdoor Sabha (HMS), was set up in 1948 by then Praja Socialist Party and United Trade Union Congress (UTUC), was set up in 1949 by some radicalists of India. Till now the trade union movement of India is headed by these three major organisations with their differences in ideologies and policies.

9.7.2 Weaknesses of Trade Union in India

Trade union is always treated as an institution that intends to protect and serve the interests of the working classes. It has assumed an

important place in the realm of industrial relations in India since its inception in the colonial period. However, with the adoption of new economic reforms in 1991and concomitant growing tendency for contractualisation of labour has reduced its relevance in the present context. The growth of information technology also has posed a threat to the existence of trade unions in India. Some major weaknesses of trade union are explained below: limited membership, lack of unity, more than one union, weak finance, illiteracy, outside leadership, political influence etc.

- **Limited Membership:** The Trade Union in India have limited membership. Majority of the workers have not taken the membership of the union. Only 40-50 percent of the workers get membership. This tendency has made the union weak.
- **Lack of Unity:** There is no unity among the members of the trade union. They are divided and sub - divided on the basis of caste, religion, language, personal interests etc.
- **More than one Union:** In India, there exist too many trade unions. Many unions are formed within one industry. This is an unhealthy trend. This will result in inter union rivalry.
- **Weak Finance:** Low level of fund is an important factor affecting the functioning of trade union in India. As a result of insufficient finance trade union cannot undertake labour welfare and benefit schemes.
- **Illiteracy:** Majority of Indian Industrial workers are illiterates. They are unable to understand the importance of unity and unionism. They do not come forward to launch united struggle. Thus, they easily become victims of employers.
- **Outside Leadership:** Most of the unions are controlled by outsiders. They do not take those in the development of trade union nor protection of labour interest.
- **Migratory Character:** The factory workers in India are mostly controlled by some emotional sentiments. They come from villages and return to villages as soon as the work is completed.

They move from one job to another without any reason.

- **Political Influences:** In majority of cases it seems that the Indian trade unions are controlled by political parties and politicians. Most of the times, politicians victimise the workers to protect their self-interest.
- **Defective Administration:** The administration of trade unions is not efficient that hinders proper functioning of the trade union.
- **Lack of Government Interest:** The government does not take much interest in the formation and growth of trade unions. This indifferent attitude of the government is partly responsible for the slow growth of trade union movement.



LET US KNOW

- Industrial labourers refer to all those workers, who are employed in manufacturing units.
- A trade union is a voluntary organization of workers formed for the purpose of promoting & protecting the interest of workers through collective action.



CHECK YOUR PROGRESS

Q 5: What is meant by industrial labour?

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Q 6: When was trade union formed in India?

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9.8 INDUSTRIAL DISPUTES

A sound and cordial relationship between workers and employers is very important for better industrial productivity and industrial performance. But sometimes there are conflicts of interests of workers and employers

which results in disputes. An industrial dispute can be defined as cessation of work in an industrial unit when the cooperative relation between employers and employees breaks down on different issues largely issues internal to the industry. Industrial disputes mainly take the form of strikes, gheraos, lockouts etc. The onset of disputes in an industry adversely affects the productivity of the industry as a result of which total outcome of the industry gets reduced which in turn stymies GDP growth of that country.

9.8.1 Causes of Industrial Disputes

There are several causes of industrial disputes. The main reason behind this is the conflicting interests of employer and workers. The main motive of employer is the profit maximisation while the workers want maximisation of wage and salary. With change in time, there is shift in causes of disputes. For instance, before liberalisation, the main reason behind dispute was the demand for wage hike, but after liberalisation, disputes occur for recognition of trade union, betterment of service condition etc. Thus, the cause of dispute is influenced by external factors. The reason of industrial disputes can be broadly categorised into three categories: a) economic causes, b) management causes and c) political causes. The economic causes focus on wage and salary hike, allowances, retrenchment of employees etc. The managerial causes include issues like anti-labour behaviour of employers, overload, over work pressures on employees etc. The political causes are external in nature which is based mainly on political interest and agenda of political party in power. The following are some common causes of industrial disputes in India: -

- **Demand for higher wage and allowances:** The most striking cause of industrial dispute in India has been the demand for higher wages and allowances. Though the price level increases very rapidly, the increase in wage doesn't cope with the price. Thus, the increase in wage is slow.

- **Demand for bonus:** Demand for bonus is another common reason behind industrial disputes in India. Workers demand to increase their share in profits of the industry but the employers do not accept this, which results in industrial disputes among employers and employees.
- **Demand for betterment of working conditions:** With the increasing pace of globalisation, there is upliftment attitude of Indian workers which demands more conducive environment to work with. Thus, the demand for betterment of working condition is another vibrant reason of industrial disputes in India.
- **Personnel and retrenchment:** Among the causes of industrial disputes in India, personnel and retrenchment turn out to be a significant factor. It accounted about 29 percent of the total disputes during 1961-76. It was decreased to nearly 22 percent in 1981-84. Data available for the year 2015 indicates that in that year a total number of 534 (including centre and states' data) retrenchment cases were registered.
- **Non-implementation of labour laws:** Non implementation of laws formulated in favour of labour results in industrial disputes. In India, nearly 200labour laws are formulated at union and state levels. But they are very poorly implemented an enforced.
- **Conflict between employer and employee:** The basic reason behind the industrial dispute is the conflicts between the goals of employers and employee. If employers try to maximise their profit maximisation goal, the employee are certainly effected by lower wage rates, no bonus or low bonus, under provision of working conditions, over-time work etc.
- **Job security:** Job security is the most prior need of present time's worker. The job with less job security is least preferable. On onset of uncertain economic conditions (business cycle), lack of job security could be reason for industrial dispute.
- **Political factors:** Political interest also remains behind industrial dispute in India. It appears that political parties in most cases

use trade union for their own benefits and trade union works under the wings of political party. In earlier, the trade union were not much powerful to influence employers. But now-a-days, trade union acquires strength and enables to influence employers. The trade union also conscious to avail their rights by using political power. Thus, the political scenario of a nation may result in disputes among workers and employers.

- **Intra/inter union fights:** Another reason behind disputes can be the inter union as well as intra union rivalry. Now a day, there are more than one union in a single industry. The objectives of these multiple unions are not always the same. These differences lead to industrial unrest.
- **Lock outs:** A Lock out is the extreme cause of industrial disputes in India. The lockouts are declared by employers when the productivity of the workers is low, prolonged strike for fulfilment of different demands of workers, increase in competition due to liberalisation policy, higher degree of bargaining power of employers etc.

9.8.2 Settlement of Industrial Disputes

The industrial dispute is a very common phenomenon in all economies. The conflicts between the two major players of industrial sector i.e., employers and employees on various issues are not conducive for economic growth and development of an economy. Thus, a good and co-operative behaviour among employers and employees is essential requirement for preventing the industrial disputes. Therefore, many measures have been undertaken to settle industrial disputes in India. The primary objective of industrial dispute settlement is to assist all the players of industrial sectors to settle their problems without any work stoppage. Generally, there were two types of disputes settlement mechanisms: conciliation and arbitration. Conciliation (also known as mutual negotiation) is a

settlement mechanism in which settlements are done through discussions or mediation. A neutral third party is chosen to narrow down the gap between disputed parties to achieve an amicable solution. In the terminology of industrial disputes, the conciliation officer is called as "Flying Ambulance Squad." Though this seems to be an effective mechanism, it is a time-consuming process and the economy suffers the cost of delay in disputes settlement.

In the arbitration mechanism an arbitrator (a neutral member) tries to solve the industrial disputes. Arbitration can be of two types: voluntary and compulsory. In the voluntary arbitrary, a neutral or impartial third party is employed by the disputing parties to settle the disputes. In the compulsory arbitration (also known as adjudication), a third party (adjudicator)is appointed by the government to settle the industrial disputes legally. It is the ultimate legal remedy for industrial disputes settlement. It is also known as binding arbitration as the decision is final and binding. Though it is the ultimate dispute settlement mechanism when other measures like mutual negotiation or conciliation is failed, it suffers from drawbacks like undemocratic, sometimes the solution is not mutually benefitted or accepted by either party, it paves the formation of healthy trade union, it works against the unity and enlarges the differences etc. Hence, the compulsory arbitration should be used as an emergency method for settlement of industrial disputes while the conciliation is mostly preferred method of disputes settlement.

From the very beginning the government of India tried to prevent and settle the disputes resulted to industrial sector. As the industrial disputes adversely affects the economy of a country thus the government tries to resolve the issues regarding disputes as fast as possible. The deliberate govt.'s attempt started with the enactment of The Industrial disputes Act 1929 though it failed to a great extent. Again in 1947, government of India passed the Industrial Disputes Act 1947, which is implemented from 1956.Some of the major criteria are mentioned below:

- **Works committees:** Works committees are joint committees of employees and employers to ensure good relationship among them. The main objectives of such committees are to remove the frictions between employers and workers in day-to-day scenario of the factory. The government may direct establishments with 100 or more workers to maintain a good relation among employees and employers through the formation of works committees. These committees provide a forum for negotiations between employers and workers at the factory level. 546 and 870 such works committees are established in 1987 and in 1998 respectively.
- **Conciliation Officers:** The government of India appoints conciliation officer, region and industry wise. The main work of the ciliation officer is to settle the disputes and bring the employers and workers together and maintain a healthy relationship among them. If the officer is success to resolve the dispute then he/she has to the report the government about the agreements. If he/she is failed to settle the disputes, then he/she should inform about the failure and also provide the reasons behind failure and the unsuccessful steps taken by him/her.
- **Board of Conciliation:** The government forms a board of conciliation with a neutral person as a chairman and two or four persons representing the workers and employers. The main motive of this board is to resolve the industrial disputes. The board should report about its success and failure in settling the issues between the employers and workers and the steps have taken by the it to address the dispute.
- **Court of Enquiry:** When an industrial dispute is not settled by above mentioned methods then the issue is addressed to a court of enquiry. This court consists of one or more independent persons and the court investigate the industrial dispute. After that the reports should be submitted to the government. Then the case will be referred to the Industrial Tribunal for adjudication.

- **Labour Courts:** In order to consider the issues like dismissal, suspension of employees, legality of strikes, lock -outs etc, the state governments set up the labour court. The labour courts try to resolve the issues with great pace. The labour has to report the state government.
- **Industrial Tribunals:** The industrial tribunals are set up for adjudication of disputes. There are two types of tribunals: a) the state level industrial tribunal, and b) the national level industrial tribunals.

The state level industrial tribunals adjudicate disputes related to bonus, wages, profit sharing etc. these industrial dispute tribunals are headed by a person of the rank of a high court judge.

The national level industrial tribunals are appointed by the central government to resolve the disputes involve in the matter of national importance and which affect industrial establishments in more than one states.

9.9 SOCIAL SECURITY MEASURES INTRODUCED FOR THE WELFARE OF LABOURS

According to ILO (International Labour Organisation), "Social security is the protection which society provides for its members through a series of public measures against the economic and social distress resulting from sickness, maternity, employment injury, unemployment, invalidity, old age and death. These measures are also of a great importance to a country which is on the way of large-scale industrialization as they improve employee's morale by providing sense of security to them again various industrial hazards." In other words, social security is an attack on five "Giants": Want, Disease, Ignorance, Squalor and illness. Security against giant of "squalor" mean security against all those evils which come through the unplanned and unorganized growth of cities. The ultimate aim of social security measures is to provide economic and political protection against risks. Thus, the social security has vital importance in mitigating the unplanned contingencies face by the workers.

In India, social security measures were undertaken after independence social security schemes are introduced in two broad ways by: i) social insurance -under this, both employers and employees contribute regularly for benefits of employees. ii) Social Assistance - under this, the state provides certain benefits like medical facilities in govt. hospitals, free enrolment in schools etc to the people without any direct contribution.

Like other countries, India enacted many laws to provide social security to the labour. These are the Employees' State Insurance Act, the Employees' provident funds etc. the following are some of the major laws formulated by government of India as social security measures for benefits of workers.

- **Workmen's Compensation Act of 1923:** This act was enacted by the government of India in 1923 to provide compensation to the workers by the employers for industrial injuries and accidents. The amount of compensation depends on the type of injury and the salary of the worker. This covers industrial units like factories, mines, plantations, mechanically propelled vehicles, construction worker and other hazardous units. The maximum amount of compensation for death was fixed at Rs. 90,000 and for permanent disablement was Rs. 1,14,000. For partial disablement the workers are compensated at 50 percentof wages for maximum of 5 years period.
- **Employee's State Insurance Act:** This act is passed in 1948 by the government of India. The main objective is to provide compulsory and contributory health insurance to employees. The act covers the workers whose wages are below Rs. 6,500 per month. It does not take into account the armed force employees. The major benefits include:
  - **Sickness benefit:** under this head, the benefit can be availed by an insured worker for certified sickness. The benefits can be incurred through cash payment for maximum of 91 days in any continuous period of one year. The daily payment under this is calculated as half of average daily wages.
  - **Medical benefits:** medical benefits are provided to the worker claims for sickness benefits, maternity benefits or disablement benefits. It provides free medical treatment ad it can be avail if the

worker take treatment in the dispensary or hospitals run by the Employee's' State Insurance Corporation. This benefit can be availed by all the family members of the insured worker.

- **Maternity Benefit:** this benefit is to provide cash payment to the insured women worker for a period of 12 weeks. She gets benefit for 6 weeks before and 6 weeks after the delivery.
- **Disablement benefits:** This benefit is provided to the insured worker who suffers from injury, accident and occupational disease. For temporary disablement the 70 percent of the wage is paid during the periods of disablement. But the worker does not get benefit for disablement for the period less than the three years. For permanent disablement, the payment is made for worker's life and the rate of benefit is determined on the basis of the degree of disablement.
- **Dependent's benefits:** This benefit is offered to dependents of the insured worker who died of industrial accident or injury. The rate of benefit depends on the relationship between the deceased worker and the dependent. The dependents are widow, minor children and parents.
- **Funeral benefits:** the funeral benefit is provided for the expenditure of funeral of the deceased worker. This benefit is given to the eldest family member of the deceased worker.

- **Maternity Benefit Act:** This Act is enacted in 1961. Under this Act, the benefit is made to a woman for a total period of six months. She is provided benefits for 6 weeks before and six weeks after the child birth. There is no wage limit.
- **Employees' Provident Funds and Miscellaneous Provisions Act:** This Act is enacted in 1952. It covers the industrial or factories with 50 or more employees. It covers six major industries: iron and steel, textiles, engineering, cement, paper and cigarettes. This is compulsory and contributory in nature. Thus, this Act provides for provident fund, family pension and deposit linked insurance for the employees in factories and industries.

- **Death Relief Fund:** It is set up under the Employees' Provident Fund Scheme in 1964. The main motive is to provide financial assistance to the nominee/heir of the deceased worker whose wage is excess of Rs. 1000 per month at the time of death.
- **Employees' Deposit Linked Insurance Scheme:** This scheme was introduced for the members of the Employees' Provident Fund. In this scheme, the workers do not need to contribute to the insurance, only the government and employers are required to contribute.
- **The Payment of Gratuity Act:** This Act was passed in 1972. Under this, a gratuity is made to a worker on termination of his employment i.e. at retirement, retrenchment etc. In case of death of the worker, the gratuity is made to the dependents of the deceased worker. This is for the workers of mines, factories, oil fields, plantations, ports, railways, companies, shops and other establishments.
- **Employee's Pension schemes:** The governments of India introduced two types of pensions schemes- the Coal Mines Family Pension scheme and Employees' Family Pension Scheme in 1971. The main aim was to provide long-term financial support to family of a worker who met premature death. In the year 1995, Employees' Pension Scheme replaced this. Under this scheme, 50 percent pay is payable to the employees at the retirement or retrenchment on completion of 33 years of contributory service. To avail this scheme, 10 years' service is mandatory.



CHECK YOUR PROGRESS

Q 7: What is meant by social security?

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Q 8: Name five different types of social security measures available in India. .....

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9.10 PROBLEMS IN LABOUR MARKET AND SUGGESTIVE MEASURES

9.10.1 Definition of Labour Market

According to Oxford Dictionary of Economics, labour market are the processes by which workers and employers are brought into contact, and wages and conditions of work are decided. Some of these involve formal institutions: contacts between workers and employers may be arranged by employment exchanges or agencies, either public or private. Wages and conditions of work are frequently decided by negotiation between trade unions representing workers and associations representing employers. Thus, labour market is an institutionwhichbrings workers and employers into contact of each other and facilitates conditions for the determination of wages and conditions of work.

9.10.2 Problems of Labour Market

The major problems of Indian Labour Market are as follows: -

- **Unskilled labour:** The majority of Indian labour force is illiterate and unskilled. They lack proper education, vocational education, skill development programmes, training, technical know-how etc. As a result of this their employment in organised or formal sector is very much limited leaving agriculture to absorb this pool of unskilled labours.
- **Lack of absorption of skilled labour:** In India it is not only the unskilled labourers who remain unemployed but the absorption rate of educated and skilled labour force is also very poor. A huge chunk of technically educated youths after completing their technical education like engineering, vocational courses etc. are finding it difficult to get themselves absorbed in the secondary sector, resulting in the problem educated unemployment in India.

- **Surplus labour:** India is a populous country in the world next to China. Every year a large number of labours join the labour market. But due to lack of adequate job avenues, a large proportion of labours don't get jobs. The presence of surplus labour is thus a problem faced by the Indian labour market. These labourers turn out to be disguised in nature and are an important factor behind low productivity and slow growth of the Indian economy.
- **Unemployment:** As a corollary to the above, every year a large proportion of people join the labour force but due to inadequate employment avenues most of the people remain as unemployed or partially employed in the unorganised sectors. Presence of disguised unemployment, seasonal unemployment, cyclical employment, structural unemployment etcresult in low productivity and hence the low level of per capita income of Indian. Again, the presence of educated unemployment is another serious issue in this regard. Thus, unemployment has emerged as one of the most serious problems faced by the Indian labour market.
- **Trade Union activities and its political interest:** The main objective of trade union is to protect the interests of labours. It tries to promote overall development of labours. But this leads to protest of workers against employers by the means of strikes, lockouts etc. which adversely affects the production capacity of an economy by influencing the work culture in derogatory manner. Again, the agenda of different political parties also influences functioning of the trade union. Sometimes, there is conflict of ideas between the leader and the members of the work force as the later intuitively try to promote his/her ownbenefit through sacrificing welfare of millions of labours. The aggressive behaviour and unpeaceful attitude of trade union have a negative impact on the economy of India.
- **Lack of Labour Reforms:** Labour market in India is also suffering

from lack of adequate labour reforms provision. Economic reforms introduced in the country during the 1990s have changed economic scenario of the country. But the country is lagging behind in adopting necessary labour reforms as per the need in the present context.

- **Not proper utilisation of social security measures:** Social security measures are introduced in the labour market to minimise the risks associated with uncertainty in the production, unseen calamities, bad weather, demise of the labour, disease etc. the main motive of social security measures is to protect the labours from the death of poverty and low standards of living. In many countries, the security measures are introduced many years ago, but in India, social security measures are introduced just after the independence. Again, implementation of social security measure is also not up to the mark due to unsensitive behaviour of employers and weak strength of labour union.

9.10.3 Suggestive Measures

We have seen that the labour market in India has been suffering from the aforesaid serious problems. Thus, the Government should chalk out proper policy for bringing necessary reforms in the labour market for the greater interest of the country as well as for the interest of labour force (both working and non-working) in general. The following suggestions can be made in this regard.

- Expansion of educational facilities
- Encouraging internal leadership.
- Implementation of one industry, one union.
- Control of political interference.
- Strengthening of their financial position.
- Providing proper training.
- Co-operation of employers.
- Eliminationist-union rivalry.

- Reforming the structure of unions.
- Setting up of employment ventures.



CHECK YOUR PROGRESS

Q 9: What is meant by labour market?

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Q 10: Mention the problems faced by Indian labour market?

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9.11 LET US SUM UP

- Majority of Indian workers are employed in the unorganised sectors due to lack of proper education, vocational education, skill development, communication skills etc.
- Low level of education, no job security, no provision of institutional finance, workers are paid on daily basis, low wage rate, no social security measures, easy entry, low operationsetc are prevailing features of unorganised/informal sector in India.
- The Agriculture labour Enquiry Commission defines agricultural labourers as those derive their main source of income by working on farms of others for a wage.majority of unorganised workers engaged in agriculture.
- The presence of disguised employment in agriculture sector of India is responsible for lower productivity in agriculture.
- The industrial labour refers to all those workers, who are employed in manufacturing units. Low literacy, low productivity, low efficiency, poverty, lack of organisation, migration, lack of information, superstition and religious beliefs, lack of skills and specialisation, no punctuality and discipline, bad habits etc are important features of industrial labour in India.

- Conflicts of interests between employees and employers may result in industrial disputes. Lock outs, strikes etc., are different forms of industrial disputes. The emergence of disputes results in low industrial productivity in India.
- Conciliation and arbitration (voluntary and compulsory arbitration) are different methods for settlement of industrial disputes in India.
- In 1947, Government of India passed The Industrial Disputes Act 1947, which was implemented from 1956.
- Formation of work committees, conciliation board, court of enquiry, labour court, industrial tribunals, industrial truce,National Arbitration Promotion Board, conciliation officers are some of the major criteria for settlement of industrial disputes in India.
- There are various social security measures exist in India for protecting workers against economic and social adversity.
- Indian labour market is volatile, diverse, and vibrant in nature. Though today, India is the fastest growing economy, the employment generation is not adequate to absorb all the qualified young employees. This is the major problem of Indian labour market till date.
- The government of India should take actions to create job opportunities, to expand educational facilities, to provide vocational and skill development trainings,to encourage internal leadership,to implement one industry, one union, to control of political interference, to strengthen their financial position, to promote co-operation among employers, to eliminate inter -union rivalry, to reform the structure of unions, to setting up of employment venturesetc for well-functioning of Indian labour market.



9.12 FURTHER READING

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2) Dhar, P. K. (2013), "Indian Economy: Its Growing Dimensions",Kalyani Publishers, New Delhi

3) Kapila, U. (2003), "Indian Economy: Issues in Development and Planning and Sectoral Aspects", Academic Foundation, New Delhi.
4) Kapila, U. (2018), "Indian Economy Since Independence", Academic Foundation, New Delhi
5) Misra, S. K. And V.K. Puri (2000), "Indian Economy-Its Development Experience", Himalaya Publishing House, Mumbai.
6) Mukherjee, D. (2019), "Indian Economy Since Independence", NVBA, Kolkata

9.13 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: The unorganised sector is the sector which is not registered with the government. In this sector, employment terms are not fixed and regular.Further, employees do not get any social security.

Ans to Q No 2: The full form of NCEUS is National Commission for Enterprises in the Unorganised Sector.

Ans to Q No 3: The full form of NCRL is National Commission on Rural Labour.

Ans to Q No 4: The informal workers are those workers who employ whether in the formal sector or informal sector don't get any social security benefits.

Ans to Q No 5: Industrial labourers refer to all those workers, who are employed in manufacturing units.

Ans to Q No 6: The clearly registered first trade union in India was Madras Labour Union formed in 1918.

Ans to Q No 7: Social security is the protection which society provides for its members through a series of public measures against the economic and social distress resulting from sickness, maternity, employment injury, unemployment, invalidity, old age and death.

Ans to Q No 8: Five different types of social security available in India are:

i) maternity benefit ii) disablement benefit
iii) sickness benefit iv) medical benefit
v) death relief benefit.

Ans to Q No 9: Labour market is defined as an institutionwhich brings workers and employers into contact of each other and facilitates conditions for the determination of wages and conditions of work.

Ans to Q No 10: Refer to the section 12.10.2.



9.14 MODEL QUESTIONS

Very short questions (Answer each question in about 50 words)

Q 1: What do you mean by informal or unorganised sector?

Q 2: Mention one feature of informal economy.

Q 3: Define informal worker.

Q 4: When did Indian National Trade Union Congress establish?

Q 5: What is the full form of NCEUS?

Q 6: What is the full form of A.I.T.U.C?

Q 7: What do you mean by 'Adjudication'?

Q 8: What do you mean by lockouts?

Q 9: What is conciliation process in settlement of industrial disputes?

Q 10: Mention one major cause of industrial disputes.

Q 11: What do you mean by social security?

Q 12: What do you mean by trade union?

Q 13: When was the first National Commission on Labour set up?

Short Questions (Answer each question in about 150 words)

Q 1: What are the characteristics of Indian informal sector?

Q 2: What do you mean by industrial disputes?

Q 3: What are the main reasons behind industrial dispute in India?

Q 4: What is the present status of agricultural labourers in India?

Q 5: What are the methods of settlement of industrial disputes in India?

Q 6: What are social security measures for welfare of Indian labour?

Q 7: What are the problems of labour market in India?

Q 8: What do you suggest for the betterment of Indian labour market?

Q 9: What are the major recommendations of National Rural Labour Commission?

Q 10: Write short notes on:

a) National commission on rural labour

b) Trade union

c) Social security measures

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

Q 1: Discuss about the present status of Indian Agricultural labourers.

Q 2: Explain the trade union movement in India.

Q 3: Explain the main causes of industrial disputes in India.

Q 4: How does the industrial disputes settle in India?

Q 5: Discuss the recommendations of National Rural Labour Commission in India.

Q 6: What are the weaknesses of the trade union in India? Explain.

Q 7: Write a note on social security measures undertaken in India for betterment of Indian labour.

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UNIT 10 : PLANNING FOR DEVELOPMENT

UNIT STRUCTURE

10.1 Learning Objectives

10.2 Introduction

10.3 Some Basis Concepts in Planning

10.3.1 Need for Planning

10.3.2 Types of Planning

10.4 Economic Planning in India

10.4.1 The Planning Commission

10.4.2 NITI Aayog (Policy Commission)

10.4.3 The National Development Council

10.5 Overall Objectives of Planning in India

10.6 An Outline of the Plans in India: Achievement and Failures

10.6.1 Recent Change in the Approach to Planning in India

10.7 The Twelfth Five Year Plan: Objectives and Targets

10.7.1 Major Objectives of the Plan

10.7.2 Monitorable Targets of the Plan

10.7.3 Sectoral Pattern of Growth under the Twelfth Five Year Plan

10.7.4 Targets and Achievements of the Last Five Year Plan: A Critical Assessment

10.8 Let Us Sum Up

10.9 Further Reading

10.10 Answers to Check Your Progress

10.11 Model Questions

10.1 LEARNING OBJECTIVES

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

- understand about the emergence of planning in India
- discuss the role of Planning Commission and The National Development Council

- explain about overall objectives, targets, achievements and failures of Five Year Plans in India
- have an insight to the current Five Year Plan n India

10.2 INTRODUCTION

The present thought of economic planning is comparatively new somewhat rooted in Marxian Socialism. The idea of economic planning has been developed by Soviet Union for the first time in 1928 which was given to transform the country in industrial super power. Idea of Economic Planning got strength during the period of great depression in 1930 and Keynes writing also advocated worth of economic planning. The occurrence of Second World War also necessitated the proper and efficient planning of economic resources for the successfully handling aftereffects of war.

10.3 SOME BASIS CONCEPTS IN PLANNING

10.3.1 Need for Planning

In India, the need and importance of planned and coordinated economic development under government supervision was recognized all along the freedom movement. In the 1930's when the freedom struggle was on rise, socio- economic aims also became well defined. The then congress president, Subhash Chandra Bose laid great stress on national planning and appointed a National Planning Committee with Jawaharlal Nehru as its Chairman. The Planning Commission was set up in March, 1950 with Nehru as its Chairman. By 1951, India started planning critically for the future. India adopted a flexible plan strategy in order to bring about a structural and functional transformationunder the leadership of Jawaharlal Nehru.

Overall objectives of Planning in India: Since, India is a developing country achieving full employment with economic development is the prime focus. Accordingly, in almost all the 5 year plans the following objectives are mentioned.

In all developing countries, increase in the state of economic development is the basic objective of economic planning. The level of Income, saving and investment should be increased to augment the level of capital formation which helps in raising the rate of economic development. Most of the people in developing countries are poor and their income level is also low which reduces the capacity of the people to save. Low saving results in lower level of capital formation. Due to scarcity of capital and lower productivity the rate of investment is low. In this situation two methods can be used one is planned development by importing capital from out of the country which Zweig Calls "Supported industrialization" and the other is by enforced saving which he characterizes as "Self Sufficient Industrialization."India wants to select the second option and therefore some related objectives are formulated as follows.

- **To Eradicate Unemployment:** The need for planning is more stressed by need for eradicating the unemployment in economies. In underdeveloped countries problem of unemployment arises because of capital being limited and labor being abundant. Due to excess labour available, there arises involuntary unemployment in the economy. It can be solved by placing well powerful authority at central level and giving more power to this authority can solve this problem.
- **To Improve and Strengthen Market Mechanism:** The need for planning is to improve and strengthen market mechanism .The market mechanisms works improperly in underdeveloped countries because of the lack of knowledge and unfamiliarity with it. The major parts of economy of under developed country consistof non-monetized sector. The production factors and monetary markets are not organized properly. The price system exist only at very basic level .Therefore planning is required bring a match between demand and supply side of the economy and other resources.
- **Fair progress of the Economy:** In absence of effective efficient

planning there is a greater need of setting up institution which is dedicated to only planning of economy. For faster growth of an economy the agriculture and industrial sector need greater investment,attention, effective policies from the government. Import and Export needs to be kept on checked condition and there should be an effort to balance both import and export so that foreign exchange can be managed effectively.

- **Progress of Agricultural and Industrial sectors:**The necessity for developing the agricultural sector with industrial sector arise from the fact that agriculture and industry are dependent on each other. Growth of agricultural sector will provide plentiful and required raw material to industries.
- **Progress of Money and Capital Market:** Growth of trade depends not only on agricultural and industrial sector, but also with stable growth of other financial institutions. Capital & money markets are undeveloped all the developing countries.The growth of these markets depend on international markets and world economic conditions.
- **Progress in Infrastructure:** For the growth of agricultural and industrial sector the infrastructure need drastic improvements at very high pace.If the Infrastructure lags behind, it will impact the growth of other sectors. For achieving high growth rate in infrastructure in countries like India, public private model can be used more extensively for faster completion of infrastructure projects.

10.3.2 Types of Planning

- **Directional planning**: Countries with socialism beliefs followed the directional type of planning. The targets of plans are pre-determined and executed with the help of the government in power. In this form of planning all the important decisions are taken by the state. In this type of planning all things are under control of state including, financial institutions, industrial sector,

transport, and infrastructure.

Faults of Planning by direction:

- It involves bureaucratic system, which is time consuming. Also, there is lack of clarity.
- Markets are under State controls.
- Planning by direction is very inflexible process and there is absence of accountability towards consumers and producers.
- Planning by direction is goal oriented and wants to achieve that at any cost. As a consequence, it becomes very tough to implement and sometimes there is exploitation of resources and manpower which may cause unrest.
- Planning by direction can lead to standardization of process resulting into similar production capacities and processes which diminish innovation.

- **Planning by inducement:** Planning by inducement is sovereign planning. The government in power forms various monetary and fiscal policies to effectively regulate the economy. If the authority want to promote any industry it can subsidy to that industry and its ancillary industries. If authority finds that there is black marketing or scarcity of a particular commodity in market they can take measures to control price and starting rationing of that commodity. To increase the capital it can take up investment and encourage private investors. It can adopt a suitable monetary policy and can fine tune taxation in the system to increase or decrease consumption.

Faults in planning by Inducement:

- Sometimes the situation of scarcity of commodity arises and measures of rationing and price control is taken by authority.
- Monetary and fiscal policies are immaterial to induce development of the economy by raising the rate of capital formation.

- **Perspective planning:** Perspective planning is a plan for longer period of time, 20 to 25 years. It is an outline of development to be undertaken over a longer period in a phased manner. A perspective plan does not mean that a single plan will continue for entire period of 20 years. In this type of planning targets are framed for particular time period for example five years like five years plan in India they are also known as short period plan. They can further divided into annual plans. These five-year plans generally maintain continuity. They can be further bifurcated as regional plan which pertains to state and districts.

  Faults of Perspective planning:

  - In perspective type of planning, plans are generally made for long period. Therefore, it is very tough to do necessary adjustment for advancement of the plan.
  - Administrative problems are major concern for this kind of planning as it requires highly efficient bureaucracy to implement the plans.

- **Indicative Planning:** Indicative planning is a flexible kind of planning. It is different from comprehensive or imperative planning. It is a decentralized type of planning. There is very less stringency in this structure of planning.

  In Indicative planning the targets for public sector are compulsory while for private sector they are only indicative. But it does not mean that government cannot use its power to influence the private sector in desired direction.It was initially used in countries like France and Japan.

  Fault of Indicative Planning:

  - Indicative planning can only influenced the players involved economic planning.
  - Indicative can turned out to be disaster if not monitored.
  - As in this planning there is not much to do by the authority, some monopolistic players can go for personal benefit without caring about over all system which can cause inflation in the economy.

- **Imperative Planning:** Under imperative planning, the government in power directs and control all the economic activities and resources in the economy. All resources are used with high efficiency to complete set targets of the plan. In such planning consumer get fixed amount of a commodity at fixed price. Since government decision and policymaking is very rigid they are to be followed by the players. This kind of planning is in use in countries like Russia and China.
- **Democratic planning:** In Democratic planning, plans are prepared according to the requirement and needs of the people. A democratic plan is characterize by discussion with various parties involved in the economy whether different government agencies, private parties or enterprises. This discussion will take place at level of preparation the plan. The plan will be debated at parliament of a country. Main motive of democratic planning is to eradicate inequalities of income and wealth. People enjoy social, political and economic freedom.
- **Fixed planning:** In this type of planning, plans are prepared for fixed period of time. The objectives and targets of fixed plan are to be achieved with in the plan period. While finalizing the budget outlay the physical targets should be keep in the mind because targets and spending on these targets are often not changed except during an emergency.

  Faults of Fixed Planning:

  - There is lack of correlation between available resources and targets of planning. The main aim is to complete financial targets by foreign aid, heavy taxation, large borrowing irrespective of itsailing effects on economy.
  - This system of planning does not take into account future changes in the world economy or any other natural calamity.
  - This type of planning is not so suitable for projects with long execution time frame.
- **Centralized Planning:** Under centralized planning the

centralized authority plans and formulates all planning activities in the country. The authority fixes target for all industries and fix priorities for all sectors. It takes all the investment decisions according to the goals and targets set in the plan. Central authority fixes price for all products.

Faults of Centralized planning:

- Centralized planning has the characteristics of authoritative and undemocratic - bureaucratic control and regulation.

- **Decentralized Planning:** In decentralized planning the plans are executed at grass root level. In this type of planning plan is prepared by central authority with discussion with all the administrative units in the country whether at state level, district level. Similarly, plans for industries are prepared with full conversation with all the major representative stakeholders in the industries. But individual firm are free to take decision on their investment and output prices. There is a freedom of production and consumption under decentralized planning.

  Faults of Decentralized Planning:

  - Its reliance on the market mechanism leads to shortages or surpluses in the production of goods and services.
  - It requires lot of adjustment from government to solve the problems in supply side.
  - It is sometimes, difficult to have coordination between planned & unplanned sectors.

10.4 ECONOMIC PLANNING IN INDIA

Economic planning becomes part of Indian political system much before the introduction of first five-year plan. Book named 'Planned economy for India' written by M. Visheshvraya which is fairly a theoretical development towards economic planning. In his book he published his own suggestions for a ten-year plan for India. He proposed under the Plan to double the income of the country within ten years. The economic history of Indian Planning can be subdivided in the following manner:

- 1947 to the mid 1950s - preparatory phase in planning for development
- Mid 1950 to mid 1960 - rapid industrialization phase in planning
- Late 1960 to 1970 - plans tried to focus on agriculture
- 1980 to 1990- initialization of liberalization in plans
- 1991 to present- liberalization in progress

During the first phase, the main concern was to work out a broad framework for planned development. The Industrial Policy Resolution of 1956 outlined Nehru's vision of a socialistic pattern of society, making the public sector the pivot of Indian Economy. From the third plan, focus shifted to agriculture sector followed by 'Green Revolution' eventually to the trade liberalizations and economic reform.

10.4.1 The Planning Commission

Planning Commission was established on 15th March 1950, as a non-constitutional body with the help of document of government of India. It helps the government in planning procedure and acts as an advisory body. Pandit Jawaharlal Nehru was appointed as the first chairman of planning commission. The prime minister of India is the ex-officio chairman of the commission. There is no fixed tenure for its members and vice chairman. The commission comprises of eight members

Functions

The main functions of planning commissions are as follows:

- It helps in estimating and recognizing the physical, human, and capital resources in the economy and investigates the possibilities of augmenting resources.
- It formulates the plan for the balanced and rapid economic development in the country.
- It helps the government in the allocation of resources to the most needed and weak sector in the country.
- Evaluates plans in its different stages and determines the plans priorities accordingly.

- It gives advice to the centre and the state government on matters for which advice is solicited by them.
- It indicates the factors, which retards the development process of the country.
- It makes additional recommendations as and when necessary.

The commission was comprised of eight members:

- Prime Minister (Chairman)
- Four fulltime members (including Deputy Chairman),
- Minister of Planning
- Minister of Finance
- Minister of Defence

With a change in the government at the centre, a new planning commission is always formed.

10.4.2 NITI Aayog (Policy Commission)

NITI (National Institution for Transforming India) was formed 1 January 2015 by the Union Government of India replacing the Planninng Commission. The Prime Minister serves as the Ex-official chairman. The governing council consists of all state Chief Ministers, chief ministers of Delhi and Puducherry, Lieutenant Governor of Andaman and Nicobar, and vice chairman nominated by the Prime Minister. In addition to full members, there are two part-time members and four ex-official members and a chief executive officer. The temporary members are selected from the leading universities and research institutions. The stated aim for NITI Aayog's creation is to foster involvement and participation in the economic policy-making process by the State Governments of India. The emphasis is on bottom-up approach and to make the country moving towards cooperative federalism. The functions of Nity Ayog is almost similar to that of Planning Commission but is complimented with some other functions like

- To develop mechanisms to formulate credible plans at the village level and aggregate these progressively at higher levels of government.

- To ensure, on areas that are specifically referred to it, that the interests of national security are incorporated in economic strategy and policy.
- To provide advice and encourage partnerships between key stakeholders and national and international like-minded Think tanks, as well as educational and policy research institutions.
- To create a knowledge, innovation and entrepreneurial support system through a collaborative community of national and international experts, practitioners and other partners.
- To offer a platform for resolution of inter-sectoral and inter departmental issues in order to accelerate the implementation of the development agenda.
- To maintain a state-of-the-art Resource Centre, be a repository of research on good governance and best practices in sustainable and equitable development as well as help their dissemination to stake-holders.

10.4.3 The National Development Council

The National Development Council (NDC), has been working as the highest national forum for the economic planning in India since August 6, 1952. Representatives of both the Central and the State government come together in the NDC to finally approve all important decisions relating to planning. The NDC is responsible to approve the draft plan. It also takes final decision regarding the allocation of central allocation for planning among different states.

10.5 OVERALL OBJECTIVES OF PLANNING IN INDIA

In India, the First Five year plan began in the year 1951-52. The first plan highlightedon correcting the disequilibrium in the country caused by second world war and partition of the countryand on attainment of self-sufficiency in food grain production and to improve availability of raw materials. The objective of second five year plan is also to initiate rapid

industrialisation with special reference to basic and heavy industries, to generate more employment opportunities, to reduce the growing inequalities in the distribution of income etc. Thus the exceeding plans were also focusing on development of agriculture, manufacturing sector and enhancing investment on social sector.

Although the objectives of these plans were different, we can identify some of the basic long-term and broad objectives of Indian planning. These are:

- **Raising the growth rate:** The economic planning in India was to bring about rapid economic growth through the growth in agriculture, industry, power, transport and communications and different other sectors in our economy. Further, the growth in real national income was considered to be the basis for an increase in per Capita real income and an improvement in the physical quality of life for, the maximum number of people. The growth, in national output must be higher than the growth rate in population for an increase in per capita output. Indian planners aimed at increasing national income and per capita income on the assumption that the continuous growth in national income and per capita income would remove the problem of poverty and raise the standard of living for the maximum people of the country.
- **Raising the investment-income ratio:** Growth in investment as a proportion of national income was also one of the important long-term objectives of Indian five year plans.
- **Achieving self-reliance:** This objective was considered to be an significant objective for keeping the growth activity free from political pressures of leading capitalist countries of the world. India had to import a enormous quantity of food grains from abroad for a considerable period. Again, she had to depend on foreign countries for the import of heavy machinery,machine tools, hardware, transport equipment, electrical instruments, etc. This was necessary for the expansion of the industrial sector and for building, a strong infrastructural base in India after independence. Hence, it was quite natural that the developed capitalist countries, supplying food grains, machinery and capital to India,

used to take full advantage of their strong bargaining power, by imposing different conditions while extending such help. In many cases, the domestic economic policies are also influenced by such conditions. Because of all these reasons, a self-reliant economic growth became a chief objective of economic planning in India, particularly since the inception of the Third Five Year Plan.

- **Reducing the level of unemployment and incidence of poverty:** Removal of unemployment can be regarded as a precondition for the elimination of poverty.It was assumed by Planning Commission that an increase in investment would accompany not only an increase in national output but also a rise in employment opportunities. This argument was put forward by the Planning Commission quite explicitly during the Third Five Year Plan. The planning commission however, believed that the removal of unemployment would lead to increase in GDP, on the one hand and improve the standard of living of the people on the other.

  Various plan documents have all along indicated that the policy of the Government of India is to reduce the incidence of poverty. The problem of poverty has been conceived as one of low productivity of a large section of the people. Hence, to remove these handicaps of the poor and to integrate them in the growth process, alleviation of poverty became one of the broad objectives of Indian planning.

- **Reducing income inequalities and attaining social justice:** Indian planners visualized the formation of a socialistic pattern of society where each member of the society would get equal opportunities in the fields of education, health, nutrition, occupation, etc. Hence, they felt the need for reducing income and wealth inequalities in our society. These inequalities have their extraction in the feudal system. Hence, reduction in income and wealth necessitated the elimination of semi-feudal relations of production in Indian villages. Thus; the objective was to do away with the 'Zamindari' system, impose ceilings on land-holdings and distribution of surplus land among the landless in rural areas.

  Income and wealth inequalities due to industrialization and growth were far more difficult The Planning Commission felt the need for

imposing some restrictive and fiscal measures e.g., by imposing higher rates of direct taxes on high incomes, to tackle this problem. The Planning Commission stated its policy towards income inequalities in the Fourth Plan document. It emphasized economic growth with the hope that the poor will benefit from it and thus, income inequalities would be reduced.

- **Modernization of various sectors:** The Sixth plan of India recognized one more objective of modernizing the production process. The implications of this modernization were to shift the sectoral comparison of national income, diversification of productive activities and advancement of technology.

  Modernization, as per the view of the Planning Commission, also implied introduction of modern technology, both in industrial and agricultural activities. It also implied an emergence of new types of banking, insurance and marketing institutions, which would facilitate the dynamics of growth process.

- **Redressing Imbalance in the Economy:** Regional disparity and imbalances in the economy became so acute in India that they needed special attention in our five-year plans.

  The second, third, fourth and five year plans have tried to achieve this objective and subsequently other plans are till focusing on this. In fact, every plan has special package for less developed regions of our country.



CHECK YOUR PROGRESS

Q 1: What is the 12th Plan Period ?

a) 2007-2012 b) 1997-2002

c) 2002-2007 d) 2012-2017

Q 2: National Development Council consists of

a) Members of Planning Commission

b) Governors of the states c) Chief Ministers of the states

d) a) and c)

Q 3: What was the prime target of First Five Year Plan of India?

a) Development of Industries b) Development of Agriculture

c) Development of Infrastructure d) Development of Rural area

Q 4: Planning commission was established as .....on.....

A. Non-constitutional body, 15th march 1950

B. Constitutional body, 15th march 1950

C. Non statutory body, 15th march 1951

D. Statutory body, 15th march 1951.

Q 5: Which type of planning is a blueprint of development over a longer period of time?

a) Centralized planning b) Decentralized planning

c) Annual planning d) Perspective planning.

Q 6: Which of the following type of planning is also known as soft planning due to minimum rigidity in its structure?

a) Indicative planning b) Perspective planning

c) Physical planning d) Financial planning.

Q 7: Which of the following planning is executed at the grass root level?

a)Centralized planning b) Decentralized planning

c) Fixed planning d) Imperative planning.

10.6 AN OUTLINE OF THE PLANS IN INDIA: ACHIEVEMENTS AND FAILURES

Seventy years of planning experience has witnessed achievements and failures in different sectors of the economy. At best, the planning experience has proved to be a mixed blessing.

Achivements: Major achievements and failures of Indian Planning are as follows:

- Increase in food grain production from 50 million tonnes in 1950-51 to 208.9 million tonnes in 1999-2000 and to 272 million tones in 2016-17.
- India has successfully maintained a reasonable degree of price stability with the help of planning and the annual rate of inflation is maintained around 4 percent (current year inflation is 4.83).
- By setting up the public enterprises at the backward areas of the country, it has helped these areas in terms of development of infrastructure, employment opportunities and growth of ancillary industries.

- With the help of rural development and rural employment schemes, the planning in India has tried to eradicate poverty and inequality.
- The composition of national income has changed graduallyover the planning years. While the share of agriculture and allied activities in the GDP has declined , that of the tertiary sector has increased.

Failures:

- In spite of achievements, economic planning has performed poorly in several areas like still India is having a massive backlog of unemployment in rural and as well as in urban areas.
- The benefits of planning and consequent development have not trickled down to the poorest sections of society
- The growth of black money in urban areas has led to a wasteful expenditure along with the menace of corruption.
- The internal as well as external debt of India has reached at alarming level with huge budget deficit of chronic nature.
- Regional disparity has not been removed so far after so much of policies and initiatives.

10.6.1 Recent Change in the Approach to Planning in India

The Five-Year Plans played a great role in lifting India's social sector and building of heavy industry. A centralised planning system could ensure that the money gets spent where it was the most needed. However, for a long time, there had been a perception that centralised planning's one-size-fits-all methodology prevented it from functioning well in a nation as large and diverse as India. Furthermore, because the Planning Commission was formerly under the control of the central government, it frequently used as a weapon for penalising opposition-ruled states in terms of funding allocation. The idea behind centralised planning's top-down approach was that the states should have more control over how much money they spent. It appeared that the Planning Commission was forcing its rules on states who could have better known what and how much they needed.

The Planning Commission was seen to be imposing its

diktats on states who could have better known what and how much they needed.

The Planning Commission has been replaced with the NITI Aayog as the new body that sets policy. "Cooperative federalism" is its guiding principle. The primary distinction is that Niti Ayog is unable to allocate cash or make choices on behalf of states. This body is merely advisory.

The initiatives of NITI Aayog include

- Three-year Action Agenda
- Fifteen-year vision and
- Seven-year strategy.

Difference between erstwhile Five Year Plans and NITI Aayog's three-year Action Agenda: NITI Aayogs Three-year Action Agenda document offers the government merely a broad road map. Since the document lacks financial authority, it does not specify any plans or allocations. Its suggestions are not legally obligatory on the government because the Union Cabinet does not have to endorse them. The NITI Aayog records have no financial significance since the government no longer divides expenditures between plan and non-plan heads. They serve as the government's only set of policy guidelines.

10.7 THE TWELFTH FIVE YEAR PLAN (2012-17)

The Twelfth Plan commenced at a time when the global economy was sufferingthrough a second financial crisis due to the sovereign debt problems of the Eurozone which was initiated in the last year of the Eleventh Plan. Almost all the countries were affected by the crisis including India. Our growth slowed down to 6.2 percent in 2011-12 and the deceleration continued into the first year of the Twelfth Plan, when the economy is estimated to have grown by only 5 percent . The Twelfth Plan therefore,state that our first priority must be to bring the economy back to rapid growth which is both inclusive and sustainable. The broad vision and aspirations which the Twelfth Plan seeks to fulfil are reflected in the subtitle: 'Faster,

Sustainable, and More Inclusive Growth'. Inclusiveness is to be achieved through poverty reduction, promoting group equality and regional balance, reducing inequality, empowering people etc whereas sustainability includes ensuring environmental sustainability ,development of human capital through improved health, education, skill development, nutrition, information technology etc and development of institutional capabilities , infrastructure like power telecommunication, roads, transport etc ,

Apart from the global slowdown, the domestic economy has also amass against several internal constraints. Macro-economic imbalances have surfaced following the fiscal expansion undertaken after 2008 to give a fiscal stimulus to the economy andinflationary pressures have built up. Major investment projects in energy and transport have slowed down because of a variety of implementation problems. Some changes in tax treatment in the 2012-13 have caused uncertainty among investors.These developments have produced a reduction in the rate of investment, and a slowing down of economic growth.

The policy challenge in the Twelfth Plan is, therefore, two-fold. The immediate challenge is to reverse the observed deceleration in growth by reviving investment as quickly as possible.

10.7.1 Major Objectives of the Plan

Immediate priority is to revive the investor sentiment along with next short term action of removing the impediments to implementation of projects in infrastructure, especially in the area of energy which would require addressing the issue of fuel supply to power stations, financial problems and clarity in terms of new exploration.

The Twelfth Plan lays out an ambitious set of Government programmes, which will help to achieve the objective of rapid and inclusive growth. Considering the scarcity of resources, it is essential to take bold steps to improve the efficiency of public expenditure through plan programmes.

Need for fiscal correction has been felt and introduction of

tax reforms like GST, reduction of subsidies as per cent of GDP while still allowing for targeted subsidies and managing the current account deficit would be another chief concerns.

Achieving sustained growth would require long term increase in investment and savings rate.

10.7.2 Monitorable Targets of the Plan

Twenty Five core indicatorshave been listed by the Twelfth Five Year plan (FYP)which reflect the vision of rapid, sustainable & more Inclusive growth of the twelfth Plan as follows:

Economic Growth

- Real GDP Growth Rate of 8.0 per cent.
- Agriculture Growth Rate of 4.0 per cent.
- Manufacturing Growth Rate of 10.0 per cent.
- Every State must have an average growth rate in the Twelfth Plan preferably higher than that achieved in the Eleventh Plan.

Poverty and Unemployment

- Head-count ratio of consumption poverty to be reduced by 10 percentage points over the preceding estimates by the end of Twelfth FYP.
- Generate 50 million new work opportunities in the non-farm sector and provide skill certification to equivalent numbers during the Twelfth FYP.

Education

- Mean Years of Schooling to increase to seven years by the end of Twelfth FYP.
- Enhance access to higher education by creating two million additional seats for each age cohort aligned to the skill needs of the economy.
- Eliminate gender and social gap in school enrolment (that is, between girls and boys, and between SCs, STs, Muslims and the rest of the population) by the end of Twelfth FYP.

Health

- Reduce IMR to 25 and MMR to 1 per 1,000 live births, and improve Child Sex Ratio (0-6 years)to 950 by the end of the Twelfth FYP.
- Reduce Total Fertility Rate to 2.1 by the end of Twelfth FYP.
- Reduce under-nutrition among children aged 0-3 years to half of the NFHS-3 levels by the end of Twelfth FYP.

Infrastructure, Including Rural Infrastructure

- Increase investment in infrastructure as a percentage of GDP to 9 per cent by the end of Twelfth FYP.
- Increase the Gross Irrigated Area from 90 million hectare to 103 million hectare by the end of Twelfth FYP.
- Provide electricity to all villages and reduce AT&C losses to 20 per cent by the end of Twelfth FYP.
- Connect all villages with all-weather roads by the end of Twelfth FYP.
- Upgrade national and state highways to the minimum two-lane standard by the end of Twelfth FYP.
- Complete Eastern and Western Dedicated Freight Corridors by the end of Twelfth FYP.
- Increase rural tele-density to 70 per cent by the end of Twelfth FYP.
- Ensure 50 per cent of rural population has access to 40 lpcd piped drinking water supply, and 50 per cent gram panchayats achieve Nirmal Gram Status by the end of Twelfth FYP.

Environment and Sustainability

- Increase green cover (as measured by satellite imagery) by 1 million hectare every year during the Twelfth FYP.
- Add 30,000 MW of renewable energy capacity in the Twelfth Plan
- Reduce emission intensity of GDP in line with the target of 20 per cent to 25 per cent reduction over 2005 levels by 2020.

Service Delivery

- Provide access to banking services to 90 per cent Indian households by the end of Twelfth FYP.

- Major subsidies and welfare related beneficiary payments to be shifted to a direct cash transferby the end of the Twelfth Plan, using the Aadhar platform with linked bank accounts.

10.7.3 Sectoral Pattern of Growth under the Twelfth Five Year Plan

The sectoral pattern of growth associated with the 8.0 per cent growth is as follows:

- The Agriculture Forestry and Fishing Sector is projected to grow at 4 per cent, an improvement over the 3.7 per cent rate achieved in the Eleventh Plan.
- The Mining and Quarrying Sector grew by only 3.2 per cent in the Eleventh Plan, the growth rate being pushed down by negative growth of 0.6 per cent in 2011-12 reflecting problems in the iron ore sector, gas production and also coal. The Twelfth Plan assumes a substantial improvement with the growth rate averaging 5.7 per cent. The manufacturing sector decelerated in the course of the Eleventh Plan with a growth rate of only 2.7 per cent in 2011-12. The average growth rate in the Twelfth Plan period is projected at over 7 per cent which is a significant improvement over the situation in 2011-12 and 2012-13.
- Gas and water supply are projected to grow at 7.3 per cent on an average compared with 6.1. per cent achieved in the Eleventh Plan.
- Construction, which grew at 7.7 per cent in the Eleventh Plan, is projected to grow at an average rate of 9.1 per cent.
- The other service sectors are projected to grow fairly robustly with Trade Hotels and Restaurants at 7.4 per cent.
- Transport, Storage and Communication growth is at 11.8 per cent.
- Insurance and Business Service growth is at 9.9 per cent, and, finally, Community and Personal Services at 7.2 per cent.

10.7.4 Targets and Achievements of the Last Five Year Plan: A Critical Assessment

There have been quite a lot of important developments during the Eleventh Plan that have implications for financing of the Twelfth Plan. The Indian Economy robustly faced the global financial crisis of 2008. However, slower growth adversely impacts growth in Centre's resources, particularly taxes. The Sixth Central Pay Commission award has been implemented. The 13th FC award for 2011-15 is under implementation with some changes in the fiscal responsibility and budget management framework targets. Service tax has emerged as a very hopeful source of revenue. Efforts have been made to introduce unified Goods and Service Tax (GST) in consultation with States. This will be a major reform of the indirect tax system. The projection of fiscal deficits based on Medium Term Fiscal Policy Statement 2012-13 indicates that debt resources for funding of GBS for the Twelfth Plan will be higher initially but is projected to decline gradually. The Centre's net borrowing which was 5.9 per cent of GDP in 2011-12 (RE) is estimated to decline to 5.1 per cent of GDP in 2012-13 (BE). The fiscal deficit as percent of GDP is further projected to decline to 4.5 per cent in 2013-14, 3.9 per cent in 2014-15, 3.2 per cent in 2015-16 and 3.0 per cent of GDP in the last year of the Twelfth Plan.



10.8 LET US SUM UP

- The idea of economic planning has been developed by Soviet Union for the first time in 1928 which was given to transform the country in industrial super power.
- In India, the need and importance of planned and coordinated economic development under government supervision was recognized all along the freedom movement.

- The Planning Commission was set up in March, 1950 with Nehru as its Chairman. By 1951, India started planning critically for the future.
- To achieve Economic Development, eradicate Unemployment, improve and strengthen market mechanism along with a fair progress of the economy, progress of Agricultural and Industrial sectors, progress of Money and Capital Market, progress in Infrastructure are some of the objectives of the various plans in India.
- Planning Commission was established on 15th March 1950, as a non-constitutional body with the help of document of government of India. It helps the government in planning procedure and acts as an advisory body.
- NITI (National Institution for Transforming India) was formed 1 January 2015 by the Union Government of India replacing the Planninng Commission. The Prime Minister serves as the Ex-official chairman. The governing council consists of all state Chief Ministers, chief ministers of Delhi and Pondicherry, Lieutenant Governor of Andaman and Nicobar, and vice chairman nominated by the Prime Minister. In addition to full members, there are two part-time members and four ex-official members and a chief executive officer.
- In India, the First Five year plan began in the year 1951-52. The first plan emphasized on correcting the disequilibrium in the country caused by second world war and partition of the country and on attainment of self-sufficiency in food grain production and to improve availability of raw materials.
- The Twelfth Plan commenced at a time when the global economy was sufferingthrough a second financial crisis due to the sovereign debt problems of the Eurozone which erupted in the last year of the Eleventh Plan.
- The Twelfth Plan therefore,state that our first priority must be to bring the economy back to rapid growth which is both inclusive and sustainable.



10.9 FURTHER READING

1) Dhar, P.K. (2018). Indian Economy: Its Growing Dimension. New Delhi: Kalyani Publishers.

2) Datt, G and Mahajan, A. (2016). Datt & Sundharam's Indian Economy. New Delhi: S. Chand & Co.

3) Misra, S.K. & Puri, V.K. (2018). Indian Economy. New Delhi: Himalya Publishing House.



10.10 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: c) 2002-07

Ans to Q No 2: d) a) and c)

Ans to Q No 3: (b)

Ans to Q No 4: a)

Ans to Q No 5: d)

Ans to Q No 6: a)

Ans to Q No 7: b)



10.11 MODEL QUESTIONS

Short Questions (Answer each question in about 150 words)

Q 1: Write a short note on Planning Commission

Q 2: Discuss about the failures of economic Planning in India.

Q 3: Discuss about various types of planning.

Q 4: What is decentralized planning? State its merits and demerits.

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

Q 1: Explain the main objectives as incorporated in the various five year plans in India.

Q 2: Critically examine the approach of 12th Five Year Plan in India.

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UNIT 11 : ECONOMIC REFORMS AND GLOBALISATION

UNIT STRUCTURE

11.1 Learning Objectives

11.2 Introduction

11.3 Economic Crisis prior to 1991 Economic Reforms

11.4 New Economic Policy of 1991

11.5 Indian Economy since Economic Reforms

11.6 Let Us Sum Up

11.7 Further Reading

11.8 Answers to Check Your Progress

11.9 Model Questions

11.1 LEARNING OBJECTIVES

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

- derive the rationale for economic reforms in 1991,
- discuss the main contents of 1991 economic reforms, and
- critically analyse the impact of economic reforms on Indian economy.

11.2 INTRODUCTION

After four decades of central planning, characterized by commandeering heights of the public sector, license raj, myriad of control, and inward looking strategy, India embarked on the path of economic reform in 1991. The historic economic reforms were initiated by Dr. Manmohan Singh who was the Finance Minister in the P.V.Narasimha Rao led Government. The reforms that began our journey from plan to market economy started with the announcement of the New Industrial Policy, 1991 on July 24, 1991 that sought to “unshackle the Indian industrial economy from the cobwebs of unnecessary bureaucratic controls”. Since then, India has come a long way and continues to tread along its chosen path of liberalisation, privatisation, and globalisation. In this unit, we shall discuss

the reforms that were initiated in the year 1991. In the first section we shall briefly dwell on the rationale for going for such radical reforms – the factors that justified it. Then, we will point out the main contents of the reforms in the subsequent section. In the final part, we will highlight the main impacts of the reforms- their success and perceived failures.

11.3 ECONOMIC CRISIS PRIOR TO 1991 ECONOMIC REFORMS

By June 1991, Indian economy reached a stage of deep crisis. It was brought on by the Gulf War, lack of financial discipline of earlier governments, failure of monsoons, and accumulated external payment obligations. For the first time in history, India was close to defaulting on its international commitments. India's credit ratings were downgraded and she could not borrow from external commercial markets.

The crisis was exaggerated by the annual rate of inflation that had touched 17 percent by August, 1991. Foreign exchange reserves plummeted to a little above US$1billion which was barely sufficient to meet the country's import bill for a week. Fiscal deficit had reached the unsustainable level of 8.4 percent of the GDP. The Current Account deficit in the Balance of Payment (BOP) was about US$10 billion.

Though the immediate crisis that prompted the announcement of historic New Economic Policy originated in the external sector, the domestic scenario was also extremely discouraging. Failure of monsoon, high rate of inflation, unsustainable fiscal deficit, high debt-GDP ratio, BOP crisis as a fall out of the fall in remittances from the Gulf and failure to improve export, drying up of external funding sources, precarious foreign exchange reserve situation – all created a situation that called for urgent drastic changes the way economic activities are carried out in the economy. But it is important to note that the crisis that prompted the Government of India to embark on the path of reforms did not occur over night. It was the culmination of decades of mismanagement, faulty approach, and a lack of a pragmatic and comprehensive programme to take the economy along the desired line in

the fast changing dynamic world. A kind of lethargy was getting in built into the system that was captured by the so called "Hindu Rate of Growth" of about 3.5 percent that kept the growth of per capita income at a meager 1.5 percent per annum even after four decades of planning. The factors responsible for such a sorry state of affairs constitute both the background of the crisis of 1991 and the rationale for the economic reforms that were bold and path breaking. In the following we shall briefly discuss some of these important factors.

- **Unsatisfactory Development:** Despite four decades of planning and hundreds of programmes of poverty alleviation, vast majority of the population lived in abject poverty and thereby resulted in a loss of potential human resource and continued and increasing the burden of the State. There were 260 million (about 26 percent of population) people living below the poverty line. This implied low literacy, low life expectancy, as well as very poor standard of living. Not only this, whatever development had occurred was distributed very unevenly. As a result there were growing inequalities between classes, between regions, and between rural and urban areas. This created socio economic dualism which was detrimental to growth and progress.
- **Faulty Methods:** The ills in the developmental front could be traced to methods adopted for development. Control cum regulation mechanism had turned out to be the biggest hurdle in the growth of genuine entrepreneurs, dynamic investors, efficient managers, and hard working laborers. The public sector was decaying under bureaucratic functioning, time consuming procedures that were inflicting a huge burden on the government's treasury. Over the years, a well entrenched vested interest had emerged that were simply anti development. There was an absolute lack of economic vision, economic leadership which led to sub optimal use and even outright plundering of precious resources.
- **Non Plan Expenditure:** Apart from the ever increasing burden of interest payment, subsidies, and defense expenditure, the non plan expenditure of the Government was increasing year after year. This added to the fiscal deficit with its disastrous consequences of high debt burden and inflation.

- **Capital Inadequacy:** Given the low level of economic development of the country, the capital requirement was huge to make it a modern, dynamic and growing economy. But such enormous amount of capital could not be raised internally. This meant that capital has to come from external sources. But borrowing will only mean adding to the already ballooning debt burden. Thus the need of the hour was to attract foreign private capital. This required opening up of the economy to the world, thereby reversing the age old inward looking strategy. The import liberalisation, devaluation of the currency, incentives for both foreign portfolio investment and foreign direct investment were the only way out to meet the scarcity of foreign exchange and unproductive protection of domestic industries.



CHECK YOUR PROGRESS

Q 1: What was the foreign exchange reserve of our country in June, 1991?.....

Q 2: What is meant by the term 'Hindu Rate of Growth'? (Answer in about 30 words) .....

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.....

.....

Q 3: What was the immediate crisis that resulted in the economic reforms of 1991? (Answer in about 40 words).....

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Q 4: State four factors responsible for creating the 1991 crisis. (Answer in about 50 words) .....

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11.4 NEW ECONOMIC POLICY OF 1991

The New Economic Policy was launched by Dr.Manmohan Singh in his June, 1991 budget as the Finance Minister of India. This ushered in an era of economic reforms in India which can be broadly classified into the following two groups :

- A short term stabilisation programme to bring the economy back on track.
- A medium to long term structural adjustment programme to correct structural rigidities and bottlenecks in the economy.

In the following, we are shall elaborate on these two aspects.

Stabilisation Programme: The aim of this programme was to control inflation and remove the Balance of Payment (BOP) deficit. It consisted of four distinct areas of actions. These are: fiscal policy, monetary policy, exchange rate policy, and social sector policy.

In fiscal policy, the objective was to reduce the government's fiscal deficit by reducing government expenditure on the one hand and increasing the tax base on the other. An ambitious target of lowering the fiscal deficit from 8.4 percent in 1991 to 5 percent of Gross Domestic Product (GDP) was fixed. A review of food and fertilizer subsidies was undertaken. The Chelliah Committee was appointed to look into the taxation structure and suggest measures to augment revenue. As a result of these measures, fiscal deficit fell to 6 percent in 1991-92 and to 5.6 percent in 1992-93.

In monetary policy, credit was tightened by increasing interest rates. The Narasimham Committee was appointed to recommend measures for financial sector reforms. The RBI was given more autonomy and automatic monetisation of government's deficit was given up.

In order to correct the exchange rate, Rupee was devalued by 23 percent. In February the Government of India announced the Liberalized Exchange Rate Management System (LERMS) to promote trade. In the next stage Rupee was made convertible on current account in 1994-95 budget.

In the social sector, the experience of African and Latin American countries had shown the stabilisation programme made the poor suffer

disproportionately. Drastic cuts in subsidies and increase in taxation impoverish the weaker and vulnerable sections more. Consequently the international organisations like the UNICEF recommended adoption of a stabilisation programme with a 'humane face'. In view of this, Indian reformers built into the reform package measures to protect the vulnerable sections from the fall out of macro economic adjustment. The allocation for merit goods and poverty alleviation schemes was increased. A social safety net programme was launched consisting of Employment Assurance Scheme (EAS), Prime Minister Rojgar Yojana (PMRY), National Social Assistance Programme(NSAP), Mahila Samriddhi Yojana(MSY), and Indira Mahila Yojana(IMY). The Public Distribution System (PDS) was revamped for targeting the deserving beneficiaries.

Structural Adjustment: Structural adjustment consisted of industrial policy liberalisation, public sector reforms, financial sector reforms, and trade policy reforms.

A path breaking new industrial policy was announced in July 1991 with the abolition of licensing of industries on virtually all items except those involving environmental problems or involving national security. The MRTP (Monopolies and Restrictive Trade Practices) Act was liberalized to encourage investment by large industrial houses. As a follow up to this, recently, a new Competition Act has replaced the MRTP Act. Measures were taken to encourage foreign direct investment (FDI) by replacing Foreign Exchange Regulation Act (FERA) by Foreign Exchange Management Act (FEMA) and making foreign investment and collaboration automatic in most cases.

The public sector reforms include getting out of areas where the public sector will be more efficient and disinvestment of equity in selected units. The list of industries reserved for the public sector was reduced from 17 to 6. Subsequently it has been brought down further to 3 items – atomic energy, some substances used for atomic energy, and railway transport. Even the defense industry has been opened up for the private sector with FDI permissible up to 26 percent ownership share. The Memorandum of Understanding (MOU) system of monitoring public sector units was

introduced. Social safety network has been put in place to protect workers from the adverse effect of restructuring the public sector units.

The financial sector reforms are based on the recommendations of the Narasimham Committee. The main features of these reforms are :

- unshackling of the banking system from excessive government control;
- curtailment of government tendency to rely on credit control measures (like Cash Reserve Ratio, Statutory Liquidity Ratio) and extra budgetary sources of inexpensive credit
- Signing of MOU with the RBI on discontinuation of adhoc treasury bills (1994).

The capital market reforms started with the establishment of Security Exchange Board of India (SEBI) in February, 1992. The other major steps were permitting Foreign Institutional Investors(FIIs) to undertake portfolio investment and letting Indian companies to undertake Euro issues. Over the years several reforms have been introduced in the capital market with SEBI playing a very active role. At present the Indian capital market has become more or less scam free. Defective practices like P note (participatory note) issues etc. have been rectified. As of now, the Indian stock market has been one of the strongest and best performing markets in the world. The primary market is also robust, and thanks to the strength of the macro fundamentals of the Indian economy, the Indian stock market is said to be in a structural bull run.

The trade policy reforms led to major changes in the import licensing system. Except for consumer goods, all non-tariff barriers (NTBs) have been lifted. Peak tariff rates have been brought down from 355 percent to about 50 percent. As a signatory of World Trade Organisation (WTO) agreement, India is committed to bring the tariff rate further down.



CHECK YOUR PROGRESS

Q 5: When and by whom the New Economic Policy of India was announced?

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Q 6: State two broad components of economic reforms of 1991. (Answer in about 40 words)

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Q 7: State the four distinct areas of actions under the stabilisation programme. Name the components of structural adjustments under the 1991 reforms. (Answer in about 20 words)

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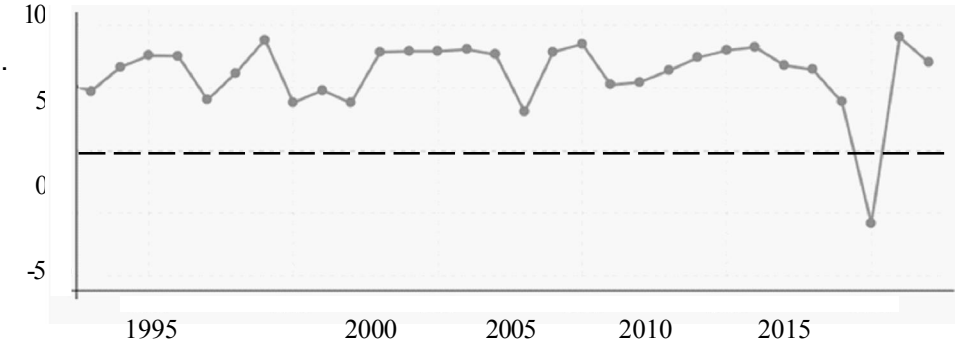
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11.5 INDIAN ECONOMY SINCE ECONOMIC REFORMS

Post 1991, the Indian economy has shown many positive features and increasingly establishing itself as a leading emerging market in the world. The positive outcomes of the economic reforms so far may be summarized as follows:

- The rate of growth of GDP has increased appreciably during the reform period. The annual average rate of growth of GDP during 1980-91 was only 5.8 percent. This has gone up to 7.2 percent during 2001-07 which was the second highest in the world. The GDP growth rate of the Indian economy in the last 30 years (1993-2022) has been shown in Figure 11.1.

Figure 11.1 : GDP Growth rate of India during the last 30 years (1993-2022)



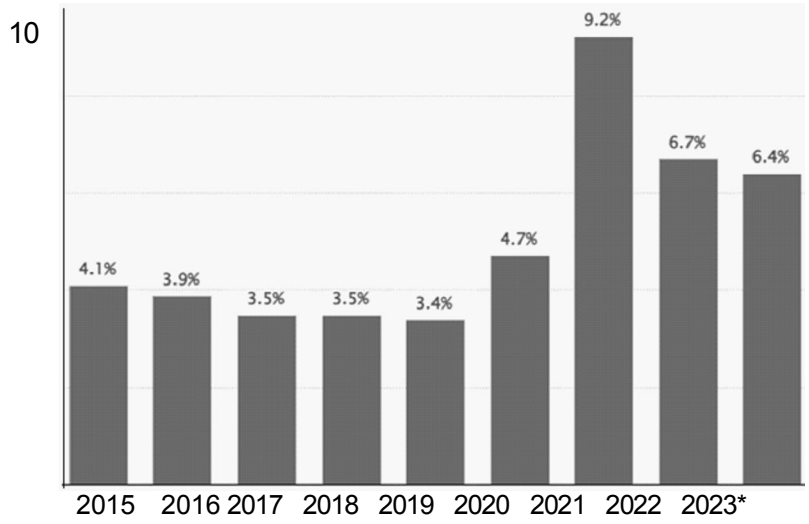
Source: https://www.macrotrends.net/countries/IND/india/gdp-growth-rate

Summrily, it can be said that the days of the Hindu rate of growth seem to be finally over.

- The Indian industry grew at the rate of 8.1 percent during reform decade as against 7 percent during 1980s. The rate would have been higher but for the deceleration in the industrial sector during 1996-97, 1997-98, and 1998-99. Industrial growth has averaged about 9.5 percent since 2004-05. In Unit 7, we already mentioned that in the recent years (Base 2011-12=100) the IIP has increased to 1.4.6 in 2016-17, 104.4 in 2017-18 and the declined to 103.8 in 2018-19. Further, IIP increased to 129 in 2019-20, but declined to 118.1 in 2020-21. In 2021-22, IIP further rose to 131.6 (Source: CSO, MOSPI)
- The growth in agricultural sector has not been uniform, ranging from 0.7 percent in 1997-98 to 9.1 percent in 2003-04 and presently about -2.8 percent. But there has been considerable diversification in this sector. According to Economic Survey (2022-23), India's agriculture sector has been witnessing robust growth with an average annual growth rate of 4.6 per cent over the last six years.
- The Foreign Direct Investment (FDI) jumped from US$200 million in 1991 to US$14.6 billion in 1997. The flow of foreign capital during the reform period can be gauged from the fact that from a mere US$1billion as foreign exchange reserve (forex reserve) in 1991, the total forex reserve has gone up now to about US$300billion. In FY 2014-15, FDI inflow in India stood at $45.15 Bn, which increased to $60.22 Bn in 2016-17 and further to the highest ever annual FDI inflow of $83.57 Bn reported during the FY 2021-22. Total FDI inflows in the country in the FY 22-23 is $70.97 Bn (Source: www.investindia.gov.in).
- The fiscal deficit has been brought down to manageable level i.e. below 6 percent of the GDP from the unsustainable level of 7-8 percent during 1985-91. With the passing of Fiscal Responsibility and Budgetary Management (FRBM) Act, 2003, the government is now legally bound to bring the fiscal deficit down to 3 percent. However, due to the exceptional circumstances created by the Great Recession (2007-09) , the fiscal deficit has gone up to 6.8 percent in 2009-10, but targeted to

be brought down to about 4 percent in 2012-13. Fiscal deficit as percentage of GDP in the recent years has been shown in Figure 11.2.

Figure 11.2: Fiscal Deficit in India as Percentage of GDP



Source: https://www.statista.com/statistics/802020/india-gross-fiscal-deficit-in-relation-to-gdp/ * estimates only

- The proportion of trade in India's GDP has gone up from 14 percent in 1990-91 to 18 percent in 1998-99. This has been achieved by consistent high growth of imports and exports. In recent years, exports have grown by about 20 percent, while imports have increased by 25-26 percent. According to Economic Survey (2022-23), the share of world trade as a percentage of world GDP has been in the range of 50-60 percent since 2003 and stood at 52 percent in 2020. For India as well, it has been above 40 percent since 2005 (except 2020 being the pandemic year). The ratio stands at 46 percent in 2021.

However, despite the above mentioned achievements, critics point out that the reforms have not been an unmixed blessing. The following issues are raised in this context.

- The impressive growth rate of the GDP has only led to the widening of the gap between the rich and the poor. All available evidence show that the pace of decline in rural poverty has slackened in the post reform period, as compared to the 1980s. Urban poverty, however, appears to have declined faster during the reform period. Thus, the reform process appears to have an urban bias.

- The fiscal discipline, as indicated by the fall in fiscal deficit, has been achieved through drastic reduction in public investment, particularly in the social sector, rather than through cutting down of wasteful government expenditure. For example, in the year 2000-01 alone, the shortfall was about Rs.19,000 crore. The cut mostly fell on agriculture and rural development.
- Critics also point out that in many FDI, money has flown from parent companies to their subsidiaries. This has been through the device of acquiring the shares of the subsidiaries by the parent companies at below market price. Such companies then have proceeded to introduce new consumer products and compete with domestic manufactures of similar products. It is also true that the contribution of the Multi National Corporations (MNCs) to the exports from the country has not been impressive.
- There has been lot of associated pains and apprehension with structural reforms. For example, in our country we still do not have an effective social safety network against loss of industrial employment as a result of the reform process.
- The disinvestment policy of the government has not taken off as anticipated. This has resulted in borrowed funds, continuing to sustain the unviable public sector undertakings (PSUs), pending their eventual divestment.
- Conservative observers also point out that the reforms have exposed the Indian economy to the unpredictable fluctuations in different economies of the world. Despite our growth being driven mostly by domestic demand, our capital market is increasingly exposed to the interest rate changes in the federal reserve system of the USA, the Balance of Payment (BOP) situation in Japan, expectation of growth in China , and problems like that of sub prime loans in the USA. This curtails, critics maintain, the much 'desirable' isolation of a developing economy from external disturbances.

CHECK YOUR PROGRESS

Q 8: Write the full form of FRBM?

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Q 9: What have been the average rates of growth of imports and export of India in recent years? (Answer in about 30 words)

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Q 10: State two principal failures of Indian economic reforms so far. (Answer in about 50 words)

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11.6 LET US SUM UP

- India embarked on the path of economic reform in 1991. The historic economic reforms were initiated by Dr.Manmohan Singh who was the Finance Minister in the P.V.Narasimha Rao led Government. The reforms that began our journey from plan to market started with announcement of the New Industrial Policy, 1991 on July 24, 1991 that sought to "unshackle the Indian industrial economy from the cobwebs of unnecessary bureaucratic controls".
- By June 1991, Indian economy reached a stage of deep crisis. It was brought on by the Gulf War, lack of financial discipline of earlier governments, failure of monsoons, and accumulated external payment obligations. For the first time in history, India was close to defaulting on its international commitments. India's credit ratings were downgraded and she could not borrow from external commercial markets.

- The crisis was exacerbated by the annual rate of inflation that had touched 17 percent by August, 1991. Foreign exchange reserves plummeted to a little above US$1billion which was barely sufficient to meet the country's import bill for a week. Fiscal deficit had reached the unsustainable level of 8.4 percent of the GDP. The Current Account deficit in the Balance of Payment (BOP) was about US$10 billion.
- The crisis that prompted the Government of India to embark on the path of reforms did not occur over night. It was the culmination of decades of mismanagement, faulty approach, and a lack of a pragmatic and comprehensive programme to take the economy along the desired line in the fast changing dynamic world. A kind of lethargy was getting in built into the system that was captured by the so called "Hindu Rate of Growth" of about 3.5 percent that kept the growth of per capita income at a meager 1.5 percent per annum even after four decades of planning.
- The economic reforms in India can be broadly classified into the following two groups :
  - Short term stabilisation programmes to bring the economy back on track.
  - Medium to long term structural adjustment programme to correct structural rigidities and bottlenecks in the economy.
- The aim of Stabilisation was to control inflation and remove the Balance of Payment (BOP) deficit. It consisted of four distinct areas of actions. These are: fiscal policy, monetary policy, exchange rate policy, and social sector policy. Structural adjustment consisted of industrial policy liberalisation, public sector reforms, financial sector reforms, and trade policy reforms.
- The principal achievements of the economic reforms have been: appreciable increase in the growth rate of GDP, more than 8 percent growth in the industries on an average, diversification of agriculture, quantum jump in the flow of FDI and consequent increase in India's foreign exchange reserves, reduction in fiscal deficit and enactment of

FRBM Act, and substantial increase in the share of foreign trade in our GDP.

- However there have been certain negative fall outs of theses reforms. Important ones are: widening of the gap between the rich and the poor, drastic reduction in public investment, particularly in the social sector, unimpressive contributions of the MNCs to exports, suffering of laid off work force in absence of social safety network, slow progress in divestment of PSUs, and exposure of the Indian economy to international disturbances.



11.7 FURTHER READING

1) Agrawal, A. N. (2019). *Indian Economy: Developmental Problems and Policies.* New Delhi: New Age International Publishers.

2) Datt, G and Mahajan, A. (2016). *Datt & Sundharam's Indian Economy.* New Delhi: S. Chand & Co.

3) Kapila, U. (2003). *Indian Economy since Independence.* New Delhi: Academic Foundation.

4) Misra, S.K. & Puri, V.K. (2018). *Indian Economy.* New Delhi: Himalya Publishing House.



11.8 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1 : It was a little above US$1billion which was barely sufficient to meet the country's import bill for a week.

Ans to Q No 2 : The "Hindu Rate of Growth" refers to the sluggish growth rate of GDP of India which was about 3.5 percent that kept the growth of per capita income at a meager 1.5 percent per annum in the first four decades of planning.

Ans to Q No 3 : It was a situation when India was close to defaulting on its international commitments for the first time in history. India's credit ratings were downgraded and she could not borrow from external commercial markets.

Ans to Q No 4 : The four prominent factors are: the Gulf War, lack of financial discipline of earlier governments, failure of monsoons, and accumulated week.

Ans to Q No 2 : The "Hindu Rate of Growth" refers to the sluggish growth rate of GDP of India which was about 3.5 percent that kept the growth of per capita income at a meager 1.5 percent per annum in the first four decades of planning.

Ans to Q No 3 : It was a situation when India was close to defaulting on its international commitments for the first time in history. India's credit ratings were downgraded and she could not borrow from external commercial markets.

Ans to Q No 4 : The four prominent factors are: the Gulf War, lack of financial discipline of earlier governments, failure of monsoons, and accumulated external payment obligations

Ans to Q No 5 : The New Economic Policy was announced by Dr.Manmohan Singh in his June, 1991 budget as the Finance Minister of India.

Ans to Q No 6 : A short term stabilisation programme to bring the economy back on track and a medium to long term structural adjustment programme to correct structural rigidities and bottlenecks in the economy.

Ans to Q No 7 : The four distinct areas are: fiscal policy, monetary policy, exchange rate policy, and social sector policy.

Ans to Q No 8 : India.

Ans to Q No 9 : Fiscal Responsibility and Budgetary Management.

Ans to Q No 10 : About 20 percent per annum.

Ans to Q No 11 : Widening of the gap between the rich and the poor, and drastic reduction in public investment, particularly in the social sector.



11.9 MODEL QUESTIONS

Short Questions (Answer each question in about 150 words)

Q 1 : Write a short note on economic crisis prior to economic reforms of 1991.

Q 2 : Prepare a brief note on structural adjustment programme.

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

Q 1 : Write a note justifying the Indian economic reforms of 1991.

Q 2 : Discuss the various measures undertaken for structural adjustment programme.

Q 3 : Outline the steps taken for the stabilisation programme under economic reforms.

Q 4 : Critically examine the impact of economic reforms on the Indian economy.



REFERENCES (For All Units of the Course)

Books

1) Agarwal, A.N. *Indian Economy: Problems of Development and Planning*, Ed., New Age International. (Latest Edition)
2) Datt, G & Mahajan, A.: 'Indian Economy.' New Delhi. S Chand and Company Pvt. Ltd. (Latest Edition)
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4) Global Food Security Index,2016-An annual measure of the state of global food security. Retrieved from www.google.co.in
5) Global Hunger index,2016,Retrieved from http://www.lfpri.org
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9) Puri, V.K & Misra, S.K.: 'Indian Economy'. Mumbai. Himalaya Publishing House Pvt.Ltd. (Latest Edition)
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Websites:

1) www.statista.com
2) www.economictimes.com
3) www.macrotrends.com
4) www.wordlbank.org

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Learner's Feedback on Course

Dear Learner,

Regarding the course as mentioned above, we would like to know your opinions and comments so as to improve the quality of self learning materials in future. Please respond to the following statements by ticking the number you feel most reflect your opinion. After completion of the additional comments, please detach the page and send/mail the same to us at the address given below.

The Director, Centre for Internal Quality Assurance, KKHandiqui State Open University
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(E-mail id: ciqa@kkhsou.in)

1. Approximately how many hours did you spend for studying the units in the course? | | | |
2. Please give your opinions (by √ mark) to the following items based on your reading of the block:

Sl. No.	Statements	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
I.	The SLMs of the course fulfil the learning objectives set out in the beginning of each unit					
II.	The units of the SLM could satisfy my academic needs and expectations					
III.	The Unit writers have excellent knowledge about the course contents					
IV.	Language and contents of the units were presented at a level which I could readily understand					
V.	Ample opportunity for participation in the activities provided in the units					
VI.	Used enough Illustrations (Diagrams, tables etc.) for conceptual clarity					
VII.	Quality of content is engaging, relevant, and up-to-date					
VIII.	The self check questions are very helpful					
IX.	The Possible/model questions and the answers to check my progress have benefited me a lot					

Additional Comments: *(Please feel free to provide your open comments)*

1. Which aspects of the SLM, according to you, worked well?

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2. What sort of changes/improvements do you feel KKHSOU could implement to improve the overall quality of the SLM?

Thank you for taking the time to complete this form.

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