B.A. First Year

Economics, Paper - II

INDIAN ECONOMY

मध्यप्रदेश भोज (मुक्त) विश्वविद्यालय – भोपाल

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SYLLABI-BOOK MAPPING TABLE

Indian Economy

Syllabi	Mapping in Book
UNIT-I: Structure of Indian Economy, Basic Features: Natural Resources-Land, Water, Forest and Mineral Resources. Demographic Features: Population, Size, Sex, Rural-Urban Classification. Population Distribution. Composition of Gross Domestic Product.	**Unit-1:** Structure of Indian Economy **(Pages 3-28)**
UNIT-II: Agriculture: Nature and Importance, Land Use Pattern, Changes in Cropping Pattern of Madhya Pradesh. Trends in Agriculture Production and Productivity, Green Revolution, Agriculture Marketing and Mechanisation.	**Unit-2:** Agriculture in India **(Pages 29-69)**
UNIT-III: Industrial Policy of 1956, New Industrial Policy of 1991 and Changes there in, Role of Public Sector in Industrialization. Industrial Policy of Madhya Pradesh. Concepts of Small Scale Industries (SSI) and Cottage Industries, Problems and Prospects of SSI in Indian Economy. Start Up India and Make in India.	**Unit-3:** Industrial Policies of India **(Pages 71-100)**
UNIT-IV: Infrastructure for Indian Economy: Power, Transportation and Communication. India's Foreign Trade-Composition and Direction, Balance of Payment, Role of Foreign Direct Investment and Multinational Corporation.	**Unit-4:** Infrastructure of Indian Economy **(Pages 101-153)**
UNIT-V: Planning in India- Objectives, Strategy, Achievements and Failure, NITI Ayog, Problems of Indian Economy-Poverty, Unemployment, Inflation and Black Money.	**Unit-5:** Planning in India **(Pages 155-190)**

CONTENTS

INTRODUCTION

NOTES

The colonial rule in India brought a significant change in the taxation and agricultural policies. This led to commercialization of agriculture with a focus on trade. It had many adverse effects on Indian economy, such as decreased production of food crops, mass impoverishment and destitution of farmers and many famines. Thus, Indian economic policy after independence was influenced by the colonial experience. Independent India's domestic policy tended towards protectionism, concentrating on import substitution industrialization, economic interventionism, a large public sector, business regulation and central planning.

India initiated the principles of free market in 1991. This move was aimed at enabling the country to survive in internationally competitive market and attract foreign investment. Today, the economy of India is the fifth largest in the world by nominal GDP and the third largest by purchasing power parity (PPP). Our country is the second largest economy in the world, in terms of both population and arable land. It has 16 per cent of the world's population and 12 per cent of the world's arable land. According to the World Bank, the per capita GDP in India in 2017 was US$ 1,939.61. However, despite its rapid economic growth, India continues to face massive income inequalities, high unemployment and malnutrition. This book, *Indian Economy*, discusses all these aspects in detail and is divided into five units.

This book is written keeping the distance learning student in mind. It is presented in a user-friendly format using a clear, lucid language. Each unit contains an Introduction and a list of Objectives to prepare the student for what to expect in the text. At the end of each unit are a Summary and a list of Key Terms, to aid in recollection of concepts learnt. All units contain Self-Assessment Questions and Exercises, and strategically placed Check Your Progress questions so the student can keep track of what has been discussed.

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UNIT 1 STRUCTURE OF INDIAN ECONOMY

Structure

1.0 INTRODUCTION

An economic system is the structure, which guides production, allocation of economic inputs, sharing of economic outputs and utilization of goods and services in an economy. It is a set of institutes and their social relations. On the other hand, it is the set of rules by which problems of economics are addressed, such as the economic problem of insufficiency through allotment of finite productive resources.

In this unit the basic features of the Indian economy are discussed in detail. The composition of GDP along with the national income concept in also discussed here.

1.1 OBJECTIVES

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

- Understand the basic features of the Indian Economy
- Describe the land, water and forest cover of India
- Discuss the demographic features of India
- Describe the composition of Gross Domestic Product

1.2 BASIC FEATURES

The total population of India stands at more than 1.3 billion, which is further growing at 1.55 per cent a year. With total GDP in 2019 of approximately $2.936 trillion, India occupies a position as the world's 6th largest economy—and the third largest

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in Asia following Japan and China. Services, industry and agriculture account for 54 per cent, 29 per cent, and 18 per cent of India's GDP respectively. India is making the most of its large numbers of qualified people who are skilled in the English language in order to become a major exporter of software services and software workers; however, more than half of the population is dependent on agriculture for its livelihood. Approximately 700 million Indians live on $2 per day or less, while a large and growing middle class comprising of more than 50 million Indians are dependent on disposable income ranging from 200,000 to 1,000,000 rupees per year ($4,166-$20,833) for their livelihood. However, it is estimated that the middle class will grow ten-fold by 2025.

Even though in a slow and halting manner, India continues to move ahead with market-oriented economic reforms that started in 1991. Some of the reforms are:

- Increasingly liberal foreign investment and exchange regimes
- Industrial decontrol
- Reductions in tariffs and other trade barriers
- Opening and modernization of the financial sector
- Significant adjustments in government monetary and fiscal policies
- More safeguards for intellectual property rights.

Since 1997, India has consistently recorded growth rate of over 7% which has helped reduce poverty dramatically.

Nevertheless, economic growth is restricted a number of factors such as:

- Inadequate infrastructure
- A cumbersome bureaucracy
- Corruption
- Labour market rigidities
- Regulatory and foreign investment controls
- The 'reservation' of key products for small-scale industries
- High fiscal deficits

The outlook for further trade liberalization is obscure. An important World Trade Organization (WTO) Doha Ministerial Declaration in July 2008 was not successful because of disparities between the US and India (as well as China) over market access. In 2002, the Government of India abolished quotas on 1,420 consumer imports and has incrementally reduced non-agricultural customs duties in recent successive budgets. However, the tax structure is complex, with compounding effects of various taxes. In 2018, US-India bilateral merchandize trade surpassed approximately $87 billion. Principle US exports include:

- Diagnostic or lab reagents
- Aircraft and parts
- Advanced machinery
- Cotton

- Fertilizers
- Ferrous waste/scrap metal
- Computer hardware

Major US imports from India include:

- Textiles and ready-made garments
- Internet-enabled services
- Agricultural and related products
- Gems and jewellery
- Leather products
- Chemicals

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Main Features of Indian Economy

The Indian economy is integrated with certain features, some of which are as follows:

1. **Low per capita income:** One of the most characteristic features of an under-developed economy is low per capital income. As opposed to the advanced countries, India's per capita income stands at a very low level. Currently, there is a gradual increase in this trend of difference of per capita income between under-developed and advanced countries. In India, not only the per capita income is low, but the income is also distributed unequally, which creates a wide gap between the rich and the poor. Due to this unequal distribution of income and wealth, the problem of poverty in the country is increasingly becoming more critical and acute, and is strongly acting as a hurdle in the process of economic growth.
2. **Heavy population pressure:** Population explosion is another massive hurdle to the economic growth of India. This is clearly seen from the total population of India, which was 102.67 crore in 2001 census. After China, India occupies the second position as the most populated country in the world. As in 2017, India has a total population of around 133.92 crores. All the under-developed countries are characterized by high birth rate, which stimulates the growth of population. The fast rate of population growth further propels a higher rate of economic growth in order to maintain the same standard of living. However, the failure to maintain the standard of living makes the under-developed countries poorer, thereby affecting the economic growth.
3. **Pre-dominance of agriculture:** Occupational distribution of population in India evidently reflects the disparity in the economy. One of the basic features of an under-developed economy is the major contribution of the agriculture in the national income and the involvement of a very high proportion of working population in agriculture.
4. **Unemployment:** Another feature of Indian economy is unemployment and under-employment. Due to high population pressure, it is difficult to provide productive employment to the entire population. Due to lack of job opportunities in the market, there is a deficiency in capital formation.

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5. **Low rate of capital formation:** The rate of capital formation is also low in India. Capital formation mainly depends on the ability and willingness of the people to save. Since the per capita income is low and there is unequal distribution of income and wealth, the ability of the people to save is very low in developing countries which leads to low capital formation.
6. **Poor technology:** Technology plays a vital role in the growth of the economy of a nation. However, Indian economy is not very well adept with technological advancements. The country still holds a huge scope of improvement when it comes to technology.
7. **Backward institutional and social framework:** The social and institutional framework in India is highly under-developed, which significantly affects the economy of the nation. This acts as a strong obstacle to any change in the form of production. Moreover, social institutions, such as caste system greatly affects the economic life of the people.
8. **Under-utilization of resources:** Due to lack of knowledge and unequal distribution of resources, the country is not able to effectively utilize all its resources.
9. **Price instability:** Price instability is a huge factor in the uneven growth of the Indian economy. Shortage of essential commodities and gap between consumption and production increase the price steadily. This further acts as a deterrent in the growth of the nation.

Check Your Progress

1. Mention any two factors that restrict the economic growth of India.
2. What are the major US imports from India?

1.3 NATURAL RESOURCES—LAND, WATER, FOREST AND MINERAL RESOURCES

In this section, you will learn about land, water and forest cover of India.

Land Resources in India

India occupying only 2.4 per cent of the world's geographical area, supports about 16.2 per cent of the world's human population. India also has only 0.5 per cent of the world's grazing area but supports 18 per cent of the world's cattle population. India is endowed with a variety of soils, climate, biodiversity and ecological regions. About 228 mha (69 per cent) of its geographical area (about 328 mha) fall within the dryland (arid, semi-arid and dry sub-humid) as per Thornthwaite classification. The Thar Desert lies in the hot arid region of Western Rajasthan and is one of the most densely populated deserts of the world. The country has been classified on the basis of agro-climatic, agro-ecological and agro-meteorological zones for the purpose of planning and implementing various programmes and measures. Agriculture is the major sector of growth of the Indian economy. A large percent of the population is

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still dependent on agriculture for its sustenance. Of the total cultivated area of 142 mha, major part of agriculture in the country is rainfed, extending to over 97 mha and constituting nearly 68 per cent of the net cultivated area.

India has a wide range of soils, each type being particular of a specific locality. Alluvial and black cotton soils are the two most important soil groups for agricultural production. Alluvial soils cover about 78 mha (about 24 per cent) of the total land and occur in the great Indo-Gangetic Plains, in the valleys of Narmada and Tapti in Madhya Pradesh and the Cauvery in Tamil Nadu. These soils are considered very good for the production of wheat, rice other cereals, pulses, oil seeds, potato, sugarcane, etc. The black cotton soils cover about 51.8 mha. and are found in the States of Maharashtra, Gujarat, Madhya Pradesh, Karnataka, Andhra Pradesh, Tamil Nadu, Uttar Pradesh and Rajasthan. These are also considered good for cultivation of cotton, cereals, pulses, oil seeds, citrus fruits, vegetables, etc. In addition, Red soils have been estimated to occur in 51.8 mha and are primarily found in Tamil Nadu, Karnataka, Kerala, Maharashtra, Andhra Pradesh, Madhya Pradesh, Bihar and West Bengal. These are most suited for rice, ragi (millet), tobacco and vegetable cultivation. Laterite and lateritic soils occur in 12.6 mha. These are not considered good for agriculture. The area of desert soils is about 37 mha. These are also not found suitable for agriculture.

Water Resources in India

India is endowed with a rich and vast diversity of natural resources, and water occupies a significant position among them. The development and management of water is very important in agriculture production. Integrated water management is vital for reduction of poverty, sustenance of the environment and sustainable economic development. According to National Water Policy, 2002, the water resources of the country should be developed and managed in an integrated manner.

India receives annual precipitation of approximately 4000 km3, including snowfall. The rainfall in India reflects very high spatial and temporal variability. The irony of the situation is that Mousinram near Cherrapunji, which receives the highest rainfall in the world, faces a shortage of water during the non-rainy season, almost every year. The total average annual flow per year for the Indian rivers is assessed to be 1953 km3. The total annual replenishable groundwater resources are estimated as 432 km3. The annual utilizable surface water and groundwater resources of India are estimated as 690 km3 and 396 km3 per year, respectively. The pressure on the country’s water resources is increasing with rapid growth of the population and the aim to improve the living standards. Moreover, per capita availability of water resources is reducing gradually. India suffers the problem of flood and drought syndrome due to spatial and temporal variability in precipitation.

As groundwater is overly exploited, it is resulting in reduction of low flows in the rivers, declining of the groundwater resources and salt water intrusion in aquifers of the coastal areas. Over canal-irrigation in some of the important areas has led to water-logging and salinity. Increasing pollutant loads from point and non-point sources are severely affecting the quality of surface and groundwater

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resources. The climate change is expected to affect precipitation and water availability. Up to now, adequate attention was not being given to the data collection, processing, storage and dissemination. Hydrology Project Phase-I and the development of the Decision Support System proposed under Hydrology Project Phase-II have undertaken efforts, which are expected to bridge some of the gaps between the developed advanced technologies of water resources planning, designing and management and their field applications.

Out of the total (approximate) annual precipitation of 4000 km^3, monsoon rainfall in India is of the order of 3000 km^3. Rainfall in India is dependent on the south-west and north-east monsoons, on shallow cyclonic depressions and disturbances and on local storms. However, it is the south-west monsoons which play a major role in causing the maximum rainfall between June and September except in Tamil Nadu, where it is under the influence of north-east monsoon during October and November. India is endowed with a river system, which includes more than twenty major rivers with several tributaries. Many of these rivers are perennial, while some are seasonal. The rivers like Ganges, Brahmaputra and Indus originate from the Himalayas and carry water throughout the year. The snow and ice melt of the Himalayas and the base flow majorly contribute to the flows of the river during the non-rainy season. More than 50 per cent of water resources of India are located in various tributaries of these river systems. Average water yield per unit area of the Himalayan rivers is almost double in comparison to the south peninsular rivers system. This clearly highlights the importance of snow and glacier melt contribution from the high mountains. Apart from the water available in the various rivers of the country, the groundwater is also an important source of water for drinking, irrigation, industrial uses, etc. It accounts for nearly 80 per cent of domestic water needs and more than 45 per cent of the total irrigation in the country. According to the international norms, a country is categorized as water stressed if per-capita water availability is less than 1700 m^3 per year. Moreover, if it is less than 1000 m^3 per capita per year, then the country is classified as water scarce. The per capita surface water availability in India during 1991 and 2001 were 2309 and 1902 m^3 respectively. These are projected to reduce to 1401 and 1191 m^3 by the years 2025 and 2050 respectively. Therefore, it is very important that the government takes up a proper planning, development and management of the greatest assets of the country, viz., water and land resources for raising the standards of living of the millions of people, particularly in the rural areas.

Forest Resources in India

The forest cover of the country, according to the current assessment is given in Table 1.1 and also presented in the pie chart in Figure 1.1. Forest cover is shown in three density classes viz., very dense forest (VDF), moderately dense forests (MDF), and open forests (OF). Scrub areas have also been delineated. As mentioned earlier, area under VDF, MDF and OF also includes mangrove cover of the corresponding density class.

The forest cover of the country as per 2007 assessment is 69,899 km^3 which is 21.02 per cent of the geographical area of country. Very dense forest

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constitutes 83,510 km^2 (2.54 per cent), the moderately dense forest 319, 012 km^2 (9.71 per cent) and open forest constitutes 288,377 km^2 (8.77 per cent) of the geographical area. The scrub accounts for 41, 525 km^2 (1.26 per cent).

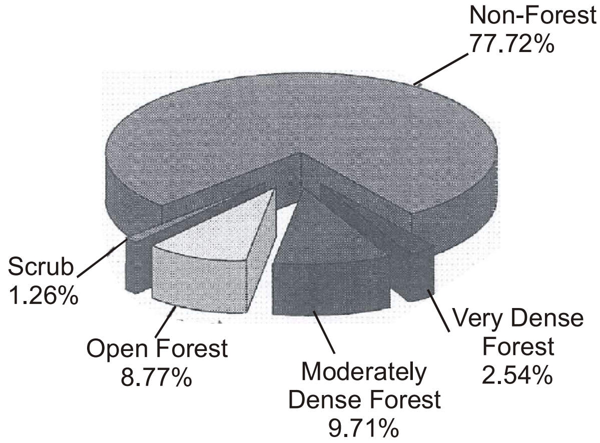

Fig. 1.1 *Forest Cover of India*

Table 1.1 *Status of Forest Cover of India in 2007*

Class	Area km^2	% of Geographical Area
Forest Cover		
Very Dense Forest	83,510	2.54
Moderately Dense Forest	319,012	9.71
Open Forest	288,377	8.77
Total Forest Cover*	**690,899**	**21.02**
Non-forest		
Scrub	41,525	1.26
Non-forest**	2,554,839	77.72
Total Geographical Area	**3.287,263**	**100.00**

* Includes 4,639 km^2 under mangroves
** Excludes scrubs and includes water bodies

State/UT wise forest cover

Forest cover of each state and UT of the country has been presented in the Table 1.1. Madhya Pradesh has the largest forest cover in the country followed by Arunachal Pradesh, Chhattisgarh, Maharashtra and Orissa. In terms of per centage of forest cover with respect to total geographical area, Mizoram leads the table with 91.27 per cent, followed by Lakshadweep (82.75 per cent), Nagaland (81.21 per cent) Andaman & Nicobar Islands (80.76 per cent), Arunachal Pradesh (80.43 per cent), Manipur (77.40 per cent), Meghalaya (77.23 per cent) and Tripura (76.95 per cent).

The total forest cover is 708,272 square km, which is 21.54 per cent of the total area of the country. Between 2015-2017, India has added 6778 square km of forest cover.

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Forest cover in hill districts

Forest cover in hilly terrain is important from the ecological considerations. Recognizing this fact, the National Forest Policy (1988) aims at maintaining two thirds of the geographical area in hills of the country under forest and tree cover.

The hill districts identified for the forest cover analysis are the ones identified by the Planning Commission for hill areas and Western Ghats Development Programme. As per their criterion, a hill taluka is the one which has an altitude of more than 500 m from the mean sea level. A hill district is one whose total area of hill talukas is more than half of the geographical area of the district.

There are 124 hill districts spread over 16 states and UTs as per the above definition. Table 1.1 gives a state-wise summary of forest cover in the hill districts of the country.

The forest cover in the hill districts of the country is 281,841 km^2, which is 39.82 per cent of the total geographical area of these districts. Though the entire geographical area of these districts does not constitute the hilly terrains, but the forest cover figures shown in the above table do provide a good basis to monitor the policy guidelines.

All the districts of the states of Arunachal Pradesh, Himachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura and Uttarakhand are hilly districts. The percentage of forest cover in these nine states is 66.07 per cent

Out of 124 hilly districts, 55 have over two thirds of geographical area under forest cover; 37 have between one third and two thirds; and 32 have less than one third. Moreover, forest cover is less than 10 per cent of geographical area in 8 hilly districts.

In the hilly districts of the country, comparison of forest cover of 2007 with that of 2005 (revised) shows a net gain of 663 km^2 of the forest cover.

Forest cover in tribal districts

Forest are central to the cultural and economic life of tribal people, who have lived in forests in harmony since ages. It is important to monitor and analyse the forest cover situation in the tribal areas. The tribal districts for purpose of this section are those as identified by the Government of India under the integrated Tribal Development Programme.

All the districts of the states of Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura; the UTs of Dadar & Nagar Haveli and Lakshadweep are tribal districts.

The total forest cover in the tribal districts is 412,625 km^2, which is 37.32 per cent of the geographical area of these districts.

The tribal districts constitute only 33.64 per cent geographical area of the country, though the forest cover in these districts is 59.72 per cent of the total forest cover of the country. All the North-Eastern states have over 75 per cent geographical area under forest cover, except Assam (23.95 per cent). Overall, these figures indicate the richness of forest resources in the tribal districts in general, and in North-East region in particular.

The comparison of forest cover in the tribal districts with respect to 2005 assessment (revised) shows a net gain of 690 km^2 of forest cover.

Forest cover in the north-eastern states

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The North-East region of the country comprising 7 states namely, Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland & Tripura is endowed with rich forest resources. The region, which covers only 7.76 per cent of the geographical area of the country, accounts for nearly one fourth of its forest cover. This region is also rich in biodiversity and has been identified as one of the 19 biodiversity hot spots of the world. The region is inhabited by many important tribes, which constitute about 27 per cent of the population. One distinct feature of land use in this region is the prevalence of shifting cultivation, which has traditionally been the main source of livelihood of the tribal people of this region. Over the years, population of the tribal people has been growing significantly and as a result, the cycle of shifting cultivation has come down to less than 5 years in general, leading to degradation of forests.

The total forest cover in the region is 170,423 km^2, which is 66.81 per cent of the geographical area as against the national average of 21.02 per cent. Very dense, moderately dense and open forests constitute 16.64 per cent, 43.42 per cent and 41.94 per cent of the total forest cover of the region respectively. As compared to 2005 assessment (revised), a gain of 598 km^2 of forest cover has been observed in the region. The main reason for the gain is the regeneration in shifting cultivation areas.

OverAll Cover, 2017: 21.54% (0.20 ▲)   OverAll Dense Forest, 2017: 12.36% (0.16 ▲)

STATE	FOREST COVER	DENSE FOREST COVER	REASON
WHERE FOREST COVER IS UP: KERALA LEADS, MANIPUR HAS GAINED MOST DENSE FOREST			
Jammu and Kashmir	10.46 (0.11 ▲)	5.69 (0.09 ▼)	Plantations, better satellite resolution
Punjab	3.65 (0.13 ▲)	1.62 (0.16 ▲)	Plantations
Himachal Pradesh	27.12 (0.71 ▲)	17.63 (0.38 ▲)	Plantations, better satellite resolution
Uttarakhand	45.43 (0.04 ▲)	33.38 (0.94 ▼)	Development
Haryana	3.59 (0.02 ▲)	1.09 (no change)	Plantation
Rajasthan	4.84 (0.14 ▲)	1.30 (0.02 ▼)	Plantation
Delhi	12.97 (0.25 ▲)	4.25 (0.08 ▼)	Plantation
Gujarat	7.52 (0.02 ▲)	2.84 (0.01 ▼)	Plantations and mangrove growth
Madhya Pradesh	25.11 (no change)	13.34 (0.13 ▼)	Farming development
Bihar	7.75 (0.05 ▲)	3.81 (0.03 ▼)	Plantation
Uttar Pradesh	6.09 (0.12 ▲)	2.78 (0.18 ▲)	Plantation
Jharkhand	29.55 (0.04 ▲)	15.41 (0.04 ▲)	Plantation
Chhattisgarh	41.09 (0.01 ▲)	29.05 (0.21 ▲)	Plantation
Goa	60.21 (0.51 ▲)	30.09 (0.22 ▼)	Mining
Telangana	18.22 (0.50 ▲)	9.22 (2.29 ▼)	Harvesting plantations
Andhra Pradesh	17.27 (1.31 ▲)	9.82 (1.42 ▲)	Plantation
Odisha	32.98 (0.57 ▲)	18.20 (0.10 ▼)	Plantation
Karnataka	19.58 (0.57 ▲)	13 (1.62 ▲)	Palm plantations
Kerala	52.30 (2.68 ▲)	28.49 (0.64 ▲)	Plantations, better satellite resolution
Tamil Nadu	20.21 (0.06 ▲)	11.26 (0.91 ▲)	Plantation
West Bengal	18.98 (0.02 ▲)	8.05 (0.02 ▼)	Plantation
Assam	35.83 (0.72 ▲)	16.56 (0.36 ▲)	Plantation
Manipur	77.69 (1.18 ▲)	33.22 (3.43 ▲)	Plantation

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Check Your Progress

3. What are the two most important soil groups for agricultural production?
4. Which region receives the highest rainfall in the world?
5. Which state has the largest forest cover in the country?

1.4 DEMOGRAPHIC FEATURES: POPULATION SIZE, SEX, RURAL-URBAN CLASSIFICATION AND POPULATION DISTRIBUTION

According to the Census of 2011, India's population is 1.21 billion. One of the features of Indian demographic behaviour which has been the cause for considerable concern is the steady decline in the sex ratio. The factors responsible for this continued declination are as of now not clearly identified. However, it is well recognized that the adverse sex ratio is a reflection of gender disparity and appropriate steps to correct this trend need to be taken. While demographic transition reflects quantitative and qualitative changes in the population profile, the on-going changes in disease burden is producing a major health transition. The growth rate of the population between the ages of 15–60 is considerably higher than that of population as a whole. Since this is the age group which is actively seeking employment, the need for expanding work opportunities is considerably higher than before. However, the total dependency ratio has been significantly declining. This occurs through a sharp reduction in the dependency ratio pertaining to the young, with that of the old remaining more or less constant. Therefore, if gainful employment can be provided to the entire labour force, the economic conditions of the households would improve significantly faster than before. The rural–urban composition of Indian population and its occupational distribution show that India is gradually moving towards urbanization and modernization. The rural population of the country has decreased from 82.7 per cent in 1951 to 68.2 per cent in 2011, while the urban population of the country has increased from 17.3 per cent to 31.8 per cent in the same period.

Broad Demographic Features

Demographic transition is the transition from a stable population with high mortality and fertility to a stable population with low mortality and fertility. During the transition, population growth and changes in the age structure of the population are inevitable. In India the demographic transition has been relatively slow but steady. As a result, the country was able to avoid adverse effects of rapid changes and age structure of the population on social and economic development.

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Challenges

- To meet all the needs of rapidly growing adolescent and young adult population.
- To cater to their increasing expectations for improved quality, spectrum and access to services.
- To accelerate demographic and socio-economic transition.
- Invest adequately in Human Resource Development (HRD)/skill development.
- Provide appropriate employment with adequate emoluments to a huge work force.

Paradigm shifts needed

- Utilize human resources to accelerate socio-economic growth and improvement in quality of life.
- Bring about convergence and synergy between ongoing programmes to hasten demographic, socio-economic and educational transitions to achieve rapid population stabilization.
- Consider demographic transition and difference in age structure of the population while making social and economic plan for the development of the nation.

Opportunities

- Utilize human resources to accelerate socio-economic growth.
- Malnutrition and Infant Mortality Ratio (IMR) are high in Madhya Pradesh, Orissa, Uttar Pradesh and Bihar.
- Though there is no statistically significant difference in the degree of malnutrition between boys and girls, undernutrition is usually more prevalent among girls.
- Low birth weight, poor dietary intake, poor caring practices, lack of access to safe drinking water, infection due to poor environmental sanitation, lack of access to health care are some of the factors responsible for prevailing under-nutrition among children.
- There is a pressing need for contraception in all states and among all segments of population, but the magnitude varies from state to state.
- Andhra Pradesh has the lowest unmet need for contraception despite young age at marriage, low female literacy, problems in accessing health care in some regions.
- Unmet need for contraception is highest in the four states with high child birth ratio. It is imperative that all the unmet needs for contraception are met through improved quality and coverage of services.
- It is essential to provide integrated health, nutrition and contraceptive care to achieve rapid improvement.

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- Women's literacy is one of the critical factors that determines and enables them to achieve their reproductive goals.
- Literacy improves awareness and enables women to access services; this improves their own well-being, survival of their offspring, and access to contraception.
- Over the years, there has been a steady increase in the population of the nation. Furthermore, the number of people living below poverty line has also been increasing.
- States with largest percentage of BPL families have high CBR; which in turn further reduces per capita income.

Table 1.2 shows the growth in India's population as well as the compound annual growth rate of India's population from 1891.

Table 1.2 *Growth of India's Population from 1891-2008*

Census Year	Population in million	Increase or decrease (in millions)	Percentage Increase or Decrease
1891	236		
1901	236	0.0	0.0
1911	252	+16	+5.7
1921	251	–1	–0.3
(1891–1921)		+15	+0.19
1931	279	+28	+11.0
1941	319	+40	+14.2
1951	361	+42	+13.3
(1921–1951)		+110	+1.22
1961	439	+78	+21.6
1971	548	+109	+24.8
1981	683	+135	+24.7
(1951–1981)		+322	+2.14
1991	846	+161	+23.9
2001	1,029	+183	+21.5
2011	1,210	+181	17.64
(1981–2011)			
Compound annual growth rate 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 2001, Series 1, Paper 1 of 2001, Provisional Population Totals. Economic Survey, 2009-10, Census 2011 (Provisional Population Tools).

Sex Composition

> 'Gender equality is more than a goal in itself. It is a precondition for meeting the challenges of reducing poverty, promoting sustainable development and building good governance'
>
> — *Kofi Annan*

Population enumeration by gender composition is one of the basic demographic characteristics and provides meaningful demographic analysis. Indian census has the tradition of bringing out information by gender composition on various aspects of the population. Changes in gender composition largely reflect the underlying social, economic and cultural patterns of the society in different ways.

Sex ratio is defined as the number of females per 1000 males in the population and is an important social indicator to measure the extent of prevailing equity between males and females in a society at a given point of time. It may be noted that the sex ratio is expected to be almost at parity in nature. According to experts, sex differential in mortality, sex selective outmigration and skewed sex ratio at birth are the major contributory factors that influence changes in sex ratio.

In India, sex ratio is skewed in favour of males and has continued to rise and expand in various forms. This has drawn wide attention of policy makers and planners to reverse the trend to bring it back to parity.

As per the provisional results of Census 2011, total population of India is 1,21,01,93,422 which comprises of 62,37,24,248 males and 58,64,69,174 females with the sex ratio of 940 females per 1000 males. The sex ratio in India from the year 1901 to 2011 is given in Table 1.2. As per Census 2011, top five states/Union territories which have the highest sex ratio are Kerala (1,084) followed by Puducherry (1,038), Tamil Nadu (995), Andhra Pradesh (992) and Chhattisgarh (991). Five states which have the lowest sex ratio are Daman & Diu (618), Dadra & Nagar Haveli (775), Chandigarh (818), NCT of Delhi (866) and Andaman & Nicobar Islands (878).

Table 1.3 *Sex Ratio in India*

Year	Females per 1000 males
1901	972
1911	964
1921	955
1931	950
1941	945
1951	946
1961	941
1971	930
1981	934
1991	927
2001	933
2011	940

Distribution of Population

- Uttar Pradesh has the highest population followed by Maharashtra, Bihar, West Bengal and Andhra Pradesh.
- Top ten states together have about 76 per cent of the total population of India.
- Population is very less in the states like Jammu & Kashmir, Arunachal Pradesh and Uttarakhand even though they are large states.
- Rajasthan, Jharkhand and peninsular states have moderate to high proportion of population.

NOTES

Uneven distribution of population in India reflects a close relationship between population and physical, socio-economic and historical factors.

1. Physical factors including climate, terrain and availability of water affect and determine the pattern of the population distribution. Some examples of this are as follows:
   - The North Indian Plains, deltas and Coastal Plains have higher proportion of population because of suitable climate for agriculture and fertile plains.
   - Mountainous and forested regions of southern and central Indian states, Himalayan states and some of the north-eastern states are less populated.
   - Development of irrigation (Rajasthan), availability of mineral and energy resources (Jharkhand) and development of transport network (peninsular states) have resulted in moderate to high proportion of population.
2. Socio-economic and historical factors also impact and determine the distribution of population of India. Some examples are:
   - Traditional settled agriculture and early human settlement has resulted in large population in the river plains and coastal areas of India.
   - Development of transport and better agricultural development has resulted in large population in North Plains.
3. The industrialization and urbanization also influenced the distribution of population.

Example 1: The urban regions of Delhi, Mumbai, Kolkata, Bengaluru, etc. have high concentration of population due to industrial development and urbanization. A large number of rural-urban migrants come to these towns.

Rural-Urban Migration

In India, there is a high incidence of internal migration of poor labourers. The poor migrants end up working as casual labourers in the informal sector. This population is also the one that is more susceptible to diseases and stands the risk of not getting access to health services.

Around 14.4 million Indians migrated within India for work purposes either to cities or areas with higher expected economic gains during the 2001 census period. 25 lakh migrants are engaged in plantations or farms, construction sites, brick-kilns, quarries, and fish processing (NCRL, 2001). Many migrants also work as casual labourers in the informal manufacturing units, services or transport sectors. They work as head loaders, rickshaw pullers and hawkers.

Among the migrants who are vulnerable, the Internally Displaced People (IDPs) are estimated to be around 6 lakhs (IDMC, 2006). Internal displacement is caused due to conflicts of not just ethnic or religious nature but also of political nature, natural disasters, development projects, etc.

There is separate migration data for males & females, migrant households, return-migrants, the structure of the residence of the migrants' households before

& after migration, status of the migrants before and after migration and other details on migration.

Only 1.1 per cent of rural households and 2.2 per cent of urban households are classified as migrant households, which have moved to their "current" place of residence during the year preceding the date of survey.

The rate of migration for ST households is higher than the rate for other groups in both the sectors. The difference is more pronounced in rural India than urban India.

At All India level, movements within state account for 77.5 per cent of total migrant households in urban India & 85.5 per cent in rural India.

The rate of migration of households from rural India is less than the corresponding rate for urban India.

Movement of households is mainly guided by the employment angle. It accounts for 67.5 per cent of the household migration to rural India & 60.2 per cent of the household migration to urban India. Another important reason of migration of households is 'Study' which accounts for 10.6 per cent of the household migration to rural India and 24.6 per cent of the household migration to urban India.

There is an inverse relationship between the land possessed and migration of the household.

Industrial Distribution

Several economists have analysed the changes in industrial distribution of the work force over the entire period from 1961–2000 and have presented their study to the government. Their findings are as follows:

- According to a study done by K. Sundaram (July, 2001), for the total work force, there is a 16 per cent decline in the share of the agriculture, forestry and fishing sector. This decline is greater than the 10 per cent decline in the share of this sector in the rural work force and reflects the effect of a shift in the rural-urban composition of the work force towards the latter.
- Of this 16 per cent decline in the share of the agriculture sector, less than 3 percent represents the gain in the share of the manufacturing (and repair services) sector. The construction sector recorded a 3 per cent gain in its share in the work force.
- The service sector, as a group, recorded a 10 per cent gain in its (collective) share in the work force. Half of this was accounted for by the trade, hotels and restaurants sector. The transport, storage and communications, and, the community, social and personal services sectors gained 2 per cent each in their (respective) shares in the work force.
- With respect to female work force, starting from a much higher share (861 per 1000) instead of (759 per 1000), the decline in the share of the agriculture (and allied activities) sector over the thirty-nine year period has been significantly less (108 points per 1000 instead of 160 points per 1000) than was recorded for the total work force. In the same way, the profits of the other sectors too have been marked less.

NOTES

- During the 1990s, the rate of decline in the share of the agriculture sector in the total work force has been faster. It has been about twice as fast as that realized over the thirty-three years period between 1961 and 1994. Similarly, the profits in the shares of the other sectors have also occurred at an equally high pace in 1999. However, in case of manufacturing (and repair services sector), this pace has been much less marked (from 0.6 per cent per annum between 1961 and 1994 to 0.8 per cent per annum in the 1990s).
- In terms of total number of workers together in the agriculture and allied activities sector, the decline in the number of workers is seen to be more moderate (0.9 million). In rural areas and among male workers, the number of workers in this industry has increased between 1993-1994 and 1999-2000.
- Within the agriculture and allied activities sector, crop production has recorded a reduction in the size of its work force of 1.5 million in the aggregate but not in the rural areas - where, in fact, there have been a marginal increase in the number of workers in crop production. Considerably, both in the broader agricultural and allied activities sector and in the crop production sub-sector, the reduction in the number of female workers has been much greater than in the total work force. The reduction in the size of the work force in the livestock sector is high among female workers but is somewhat more evenly split across the rural-urban divide.
- The addition of a little over 5 million to the work force of the manufacturing and repair services sector between 1994 and 2000 is more or less evenly split across the rural-urban divide. However, across the gender divide, female workers in this sector comprise of only 20 per cent of the additional work force.
- In contrast to the rising share of the manufacturing sector as a whole, a major sub-sector, namely, textiles and textile products has suffered a sizeable decline in its workforce.

Problem of Overpopulation

India is suffering from innumerable problems due to overpopulation. The current population is over a billion, but India does not have a large land mass that China has to support its rapidly increasing populace. India is experiencing major problems with decline in water bodies due to over-extraction beyond sustainable yield. It is developing desalination plants to solve this issue. However, according to some analysts, as India has the same population density as Japan, underdevelopment, and not overpopulation, is the cause of India's poverty.

Some problems associated with or intensified by human overpopulation are as follows:

1. Lack of adequate drinking water and as well as water for sewage treatment and effluent discharge. Some countries use desalination to solve the problem of water shortages.

2. Depletion of natural resources, especially fossil fuels, increased levels of air pollution, water pollution, soil contamination and noise pollution. Once a country has industrialized and become wealthy, a combination of government regulation and technological innovation causes pollution to decline substantially, even as the population continues to grow.
3. The persistent failure of many of these countries to escape from the 'Malthusian trap' through economic growth exceeding population growth. Many Third World countries simply lack the economic or infrastructural base to provide a rising standard of living for most of their people, especially in Africa, the Arab world and parts of Latin America.
4. Changes in atmospheric composition and consequent global warming.
5. Irreversible loss of arable land and increase in desertification. Deforestation and desertification can be reversed by adopting property rights, and this policy is successful even while the human population continues to grow.
6. Illegal (and legal) immigration to the developed world on an unparalleled scale, resulting in an unprecedented demographic and political problem in Europe and the US. Even the controlled and legal migration of talented and well-educated people from the Third World to the developed world denudes it of its limited skills base. Mass species extinctions from reduced habitat in tropical forests due to slash-and-burn techniques that sometimes are practiced by shifting cultivators, especially in countries with rapidly expanding rural populations; present extinction rates may be as high as 140,000 species lost per year. The IUCN Red List lists a total of 698 animal species having gone extinct during recorded human history.
7. High infant and child mortality. High rates of infant mortality are caused by poverty. Rich countries with high population densities have low rates of infant mortality.
8. Increased incidence of haemorrhagic fevers and other infectious diseases from crowding, lack of adequate sanitation and clean potable water and scarcity of available medical resources.
9. Starvation, malnutrition or poor diet with ill health and diet-deficiency diseases (e.g., rickets). Famine is aggravated by poverty. Rich countries with high population densities do not have famine.
10. Poverty coupled with inflation in some regions and a resulting low level of capital formation. Poverty and inflation are aggravated by bad government and bad economic policies. Many countries with high population densities have eliminated absolute poverty and keep their inflation rates very low.
11. Low birth weight due to the inability of mothers to get enough resources to sustain a foetus from fertilization to birth. Low life expectancy in countries with fastest growing populations.
12. Unhygienic living conditions for many based upon water resource depletion, discharge of raw sewage and solid waste disposal.

NOTES

13. Increased crime rate due to drug cartels and increased theft by people stealing resources to survive.
14. Conflict over scarce resources and crowding, leading to increased levels of warfare.
15. Over-utilization of infrastructure, such as mass transit, highways and public health systems.
16. Higher land prices.

Population Policy of Government

Historically, India has struggled to meet the demands of a rapidly growing population. As early as 1920s, Indian officials posited that population growth would threaten economic development and overwhelm the public health system. Likewise, developed nations (such as the U.S.) feared that a growing Indian population would increase demand for foreign aid. In 1952, India responded to these concerns by adopting the world's first National Family Planning Program (NFPP). The program aimed to curb fertility rates by providing access to maternal healthcare and contraceptives. However, implementation fell short of the program's objectives. In the rush to achieve demographic targets, NFPP resorted to coercive measures. Indian families were subject to aggressive outreach efforts and mass sterilization campaigns. Ultimately, the program sacrificed reproductive health and family preferences in the name of population control. Half a century later, the National Population Policy (NPP-2000) has been heralded as the solution to poor implementation. Reproductive healthcare was a top priority of NPP-2000.

Check Your Progress

6. Define sex ratio.
7. Which state in India has the highest sex ratio?

1.5 COMPOSITION OF GROSS DOMESTIC PRODUCT

Broadly, the methodology for compiling the estimates of GDP consists in dividing the whole economy into various sectors comprising primary, secondary and tertiary activities. The estimates of GDP in respect of agriculture, forestry and logging, fishing, mining and quarrying, registered manufacturing (establishments registered under Factories Act, 1948) and construction are based on production approach. Income approach is used in the estimation of GDP originating in un-registered manufacturing (establishments not registered under Factories Act), electricity, gas and water supply, trade, hotels and restaurants, transport, storage, communication, banking and insurance, real estate, ownership of dwellings, business services, public administration and defence and other services. The estimates of various services in the public sector are compiled by analysing the budget documents and annual reports of departmental and non-departmental commercial undertakings, those of the organised (registered) manufacturing sector are made using data from the Annual Survey of Industries, the estimates relating to the unorganised sectors in various economic activities are made using the figures of per worker value added available from the results of follow-up surveys of the Economic Census and the labour force in the activity. Generally, the unorganised sectors estimate of GDP is compiled for the base year or the bench mark survey year and estimates of subsequent years are obtained by moving the base year estimate with the help of appropriate physical indicators. The extent of this type of indirect estimation in the compilation of annual GDP estimates is indicated in various Annexes. Table 1.4 gives the list of items, sector-wise, estimates for which are compiled by indirect methods.

Table 1.4 *Sector-wise Items of Output/Input/GDP, Compiled as Indirect Estimates*

Sector	**For Benchmark Year**	**For Subsequent Years**
1	**2**	**3**
1. Agriculture	Others (oilseeds, sugar, fibres, indigo, drugs & narcotics, condiments & spices), misc. crops, by-products, kitchen garden, meat, hair & bristles, inc. in livestock, inputs: organic manure, repair & maintenance, feed of livestock, market charges, diesel oil	Others (oilseeds, sugar, fibres, indigo, drugs& narcotics, condiments & spices), misc. crops, by-products, kitchen garden, meat, hair& bristles, inc. in livestock, inputs: organic manure, repair & maintenance, feed of livestock, market charges, diesel oil
2. Forestry	Fuel-wood, inputs	Fuel-wood, inputs
3. Fishing	Inputs	Inputs
4. Mining		
5. Registered Manufacturing		
6. Un-registered Manufacturing	DC (SSI) part	Entire sector
7. Electricity	Gas, non-conventional	Gas, non-conventional
8. Construction	Kutcha construction of households	'Other materials' in the commodity flow approach and kutcha construction of households
9. Trade		Other than public sector
10.Hotels & restaurants		Other than public sector
11. Railways		
12. Other transport	Private Water transport	Other than public sector
13. Storage		Other than public sector
14. Communication	Private Communication	Private Communication
15. Banking & Insurance	Unorganised banking services	Unorganised banking services
16. Real estate, etc	Inputs	Entire sector
17. Public Administration		
18. Other services	Recreational services	Other than public sector

Check Your Progress

8. What is the full form of GDP?
9. Mention the three broad divisions of the activities of an economy.

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1.6 INDIA'S NATIONAL INCOME

Before discussing the concept of national income, you should first understand the meaning of macroeconomics. Macroeconomics deals with the study of aggregates like, the aggregate price level, inflation, unemployment, interest rates and foreign exchange rate, etc. Various economists have given different definitions of macroeconomics. The word 'macro' is a Greek word, and its meaning is 'large'. In other words, macroeconomics deals with the economics of large. It is the study of aggregates. Or in other words, macroeconomics is the study of the whole economy; some of the important definitions of macroeconomics are given below, which clearly bring out the meaning and the scope of macroeconomics.

According to Prof. Marshall, 'Macroeconomics is the study of mankind in the ordinary business of life; it examines the part of individual and social action which is most closely connected with the attainment and with the use of the material requisites of well-being.'

In the words of Dornbusch, Fischer and Startz,'Macroeconomics is concerned with the behaviour of the economy as a whole- with booms and recessions, the economy's total output of goods and services, the growth of output, the rate of inflation and unemployment, the balance of payments and exchange rates. Macroeconomics deals with both long run economic growth and the short run fluctuations that constitute the business cycle.'

According to Prof. Mankiw, 'Macroeconomics is the study of the economy as a whole – including growth in incomes, change in prices and the rate of unemployment. Macroeconomics attempts both to explain economic events and to devise policies to improve economic performance.'

According to Prof. Ackley, 'Macroeconomics deals with economic affairs 'in the large', it concerns the overall dimensions of economic life.'

Now with the help of above discussion, we can say that macroeconomics deals with the aggregates which can affect the economy, like the study of national income, unemployment, economic growth and development, business or trade cycles, interest rate and balance of payments. In the coming parts of this book, we shall discuss all the aggregates in detail, and we shall also discuss their effects on economy and the way to improve them. In our study, we shall also discuss the interrelationship among various aggregates and also their causation and determinants.

Meaning of National Income

Total income of a country is known as 'national income' it shows the overall economic performance of an economy. This economic performance can be measured in terms of national income.

According to Prof. D. M. Mithani, 'National income is the flow of goods and services produced in an economy in a year or a particular period of time.'

We should clearly understand the difference between stock and flow. According to Prof. Mankiw, 'A stock is a quantity measured at a given point of time, whereas a flow is a quantity measured per unit of time.'

According to the National Income Committee, 'A National Income estimate measures the volume of commodities and services turned out during a given period, counted without duplication.'

So, we can say that national income is the monetary value of the goods and services produced within a country. In other words, national income measures the flow of goods and the services within a country.

As contrasted with national wealth which measures the stock of commodities held by the nationals of a country at a point of time, national income measures the productive power of an economy in a given period to turn out goods and services for the satisfaction of the human wants of a particular economy.

You can easily understand the difference between flow and stock with a very simple example, the amount of water in a tub is a stock; it is the amount of water in the tub at a given point of time. As against it, the amount of water coming out of the faucet is a flow; it is the quantity of water being added to the tub per unit of time.

In national accounting system, the concept of national income can be divided into three parts: (1) national product, (2) national dividend and (3) national expenditure.

National product

It includes the monetary value of the goods and the services produced within a country. However, it does not include the goods and services which are not paid or in other words non-SNA (non-paid) activities, like the cooking done by mother, charitable work, hobbies and a number of other activities which are not paid.

National dividend

It includes the income of all the individuals in terms of cash and kind. In other words, it is the payment to all the factors of production for generating the national product. The national income measured by national product is just equal to the national income measured by national dividend during the year.

National expenditure

It includes all the expenditures of the community on the goods and services; it is just opposite to national dividend. In national dividend, you measure the income of the community and here you are measuring the expenditures of the community. But one thing should be noted that, one man's expenditure is another man's income. So, you can say that the national expenditure is just equal to the national income.

You can use any method from the above three, but the result will be the same, or you can say that,

National Income = National Dividend = National Expenditure

Gross Domestic Product (GDP)

If you include the monetary value of all the goods and the services produced within a country, it is known as Gross Domestic Product (GDP). Such a total

NOTES

(sum) represents the gross value of the final products, produced within a country in a year. Few things should be noted about GDP:

1. The word 'gross' tells us that the value of depreciation because of production has not deducted from the monetary value of the goods and services.
2. The word 'domestic' tells us that GDP is the monetary value of the goods and the services produced within the boundaries of a country. The value of trade in terms of money (export and import) with other countries is not included in this.
3. The value of final product should be taken for the measurement of national income. It is necessary to avoid the duplication in the accounting of national income, for example, if we have taken the monetary value of mangoes, but some quantity of is used for juice, then we should deduct the monetary value of those mangos from national income, and should add the monetary value of juice produced.

Gross National Product (GNP)

Gross national product (GNP) is the monetary value of the goods and the services produced in a country, and the value of net export.

In equation form,

$$GNP = C + I + G + (X - M) + (R - P)$$

where C stands for consumer goods, I stands for capital goods, and (X – M) represents net exports; where X stands for exports and Y stands for imports. (R – P) represents the net income, where R stands for income receipts and P stands for payments.

For example, if consumption (C) = 715, investment (I) = 373, government purchases (G) = 197, then net export (X – M) = + 97, net income (R – P) = +12 and gross national product (GNP) = 1,394.

In GNP, the value of each finished goods and services is multiplied by their prices. The relative prices of the products show the relative importance of each particular product. Such a total (discussed above) represents the actual gross value of the final products produced by the whole economy in a year. The word 'gross' indicates that the value of depreciation has not deducted from the value of GNP.

Net National Product (NNP)

$$NNP = GNP - D, \text{ where } D = \text{Depreciation allowance}$$

The meaning of the term 'depreciation' is 'wear and tear of the machines'. As we know that when we regularly use the machine, the value of the machines decreases with the passage of time. After some years when the value of the machines became zero, the machines have to be replaced. The same methodology is applicable on other fixed assets, for example, building and tools, etc. So, when we subtracted the value of depreciation from GNP, we get net national product (NNP).

However, national income, in its technical sense, is obtained by deducting indirect taxes from the net product measured at current market prices. Such a figure is also called NNP at factor cost, as it represents payments made to the factors of production during the production process.

National Income at Market Price and National Income at Factor Cost

There is a difference between national income at market price and national income at factor cost. National income at market price defines the national income on the basis of market prices of different goods and service. One thing should be noted that in market price, two things are common, indirect tax and subsidy.

Indirect tax

Consider the following example of wine. The market price of a bottle of wine varies from hundreds to thousands. For example, the price of a bottle is 500, but for the social welfare, it has an indirect tax of 200. In this condition, if you are calculating the national income at factor cost, you should increase our national income by 300. But on the other hand, if you are calculating the national income at market price, you should increase the national income by 500.

Subsidy

On the other hand, for the welfare of the society, government also provides the subsidy on various products. As you know, kerosene oil is mostly used by the poor people of our country, the government gives some subsidy on kerosene oil. For example, the actual price of the kerosene oil may be 20 per litre, but the government charges only 10 per litre. The remaining amount of 10 per litre is borne by the government. In this situation, if you are measuring the national income at market price, you should increase the national income by 10; but if you calculate the national income at factor cost, you should increase the national income by 20.

Now you can say that,

National Income at Market Price = National Income at Factor Cost + Taxes – Subsidies – Depreciation.

Check Your Progress

10. State the definition of macroeconomics.
11. What is national income?
12. Define Gross National Product (GNP).

1.7 ANSWERS TO 'CHECK YOUR PROGRESS'

1. Inadequate infrastructure and corruption are the two factors that restrict the economic growth of India.
2. The major US imports from India are textiles and ready-made garments, Internet-enabled services, agricultural and related products, gems and jewellery, leather products and chemicals.

NOTES

3. Alluvial and black cotton soils are the two most important soil groups for agricultural production.
4. Mousinram near Cherrapunji receives the highest rainfall in the world.
5. Madhya Pradesh has the largest forest cover in the country.
6. Sex ratio is defined as the number of females per 1000 males in the population and is an important social indicator to measure the extent of prevailing equity between males and females in a society at a given point of time
7. Kerala has the highest sex ratio in India.
8. The full form of GDP is Gross Domestic Product.
9. The economy is divided into various sectors comprising the primary, secondary and tertiary activities.
10. Macroeconomics is the study of mankind in the ordinary business of life; it examines the part of individual and social action which is most closely connected with the attainment and with the use of the material requisites of well-being.
11. National income is the flow of goods and services produced in an economy in a year or a particular period of time.
12. Gross national product (GNP) is the monetary value of the goods and the services produced in a country, and the value of net export.

1.8 SUMMARY

- The total population of India stands at more than 1.3 Billion, which is further growing at 1.55 per cent a year.
- With a total GDP in 2019 of approximately $2.936 trillion, India occupies a position as the world's 6th largest economy.
- Services, industry and agriculture account for 54 per cent, 29 per cent and 18 per cent of India's GDP respectively.
- Approximately 700 million Indians live on $2 per day or less, while a large and growing middle class comprising of more than 50 million Indians are dependent on disposable income ranging from 200,000 to 1,000,000 rupees per year for their livelihood.
- Even though in a slow and halting manner, India continues to move ahead with market-oriented economic reforms that started in 1991.
- One of the most characteristic features of an under-developed economy is low per capital income.
- India occupying only 2.4 per cent of the world's geographical area, supports about 16.2 per cent of the world's human population.
- India is endowed with a rich and vast diversity of natural resources, and water occupies a significant position among them.

- The forest cover of the country as per 2007 assessment is 69,899 km3 which is 21.02 per cent of the geographical area of country.
- Forest are central to the cultural and economic life of tribal people, who have lived in forests in harmony since ages. It is important to monitor and analyse the forest cover situation in the tribal areas.
- According to the Census of 2011, India's population is 1.21 billion. One of the features of Indian demographic behaviour which has been the cause for considerable concern is the steady decline in the sex ratio.
- Sex ratio is defined as the number of females per 1000 males in the population and is an important social indicator to measure the extent of prevailing equity between males and females in a society at a given point of time.
- In India, there is a high incidence of internal migration of poor labourers. The poor migrants end up working as casual labourers in the informal sector.
- India is suffering from innumerable problems due to overpopulation. The current population is over a billion, but India does not have a large land mass that China has to support its rapidly increasing populace.
- Broadly, the methodology for compiling the estimates of GDP consists in dividing the whole economy into various sectors comprising primary, secondary and tertiary activities.
- Macroeconomics deals with the study of aggregates like, the aggregate price level, inflation, unemployment, interest rates and foreign exchange rate, etc.
- If you include the monetary value of all the goods and the services produced within a country, it is known as Gross Domestic Product (GDP).
- Gross national product (GNP) is the monetary value of the goods and the services produced in a country, and the value of net export.

1.9 KEY TERMS

- **Economy**: An economy is an area of the production, distribution and trade, as well as consumption of goods and services by different agents.
- **Bureaucracy**: Bureaucracy refers to both a body of non-elected government officials and an administrative policy-making group.
- **Natural resources**: Natural resources are resources that exist without actions of humankind. This includes all valued characteristics such as magnetic, gravitational, electrical properties and forces, etc.
- **Demography**: Demography is the statistical study of populations, especially human beings. Demography encompasses the study of the size, structure, and distribution of these populations, and spatial or temporal changes in them in response to birth, migration, aging, and death.

NOTES

1.10 SELF-ASSESSMENT QUESTIONS AND EXERCISES

Short-Answer Questions

1. List the basic features of Indian economy.
2. What are the market-oriented reforms adopted by India?
3. Which factors restrict the economic growth of India?
4. Why does population pressure acts as hurdle in the economic growth of India?
5. Write a short note on the sex composition of India.

Long-Answer Questions

1. Discuss the main features of Indian economy.
2. What is the orientation of land and water resources in India? Elucidate.
3. What are the broad demographic features of India? Discuss the challenges they pose for the nation.
4. Discuss the major problem caused by overpopulation.

1.11 FURTHER READING

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UNIT 2 AGRICULTURE IN INDIA

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Structure

2.0 INTRODUCTION

Even though the share of agriculture in the total national income has been coming down due to the development of the secondary and tertiary sectors the contribution of agriculture remains very significant. It has gone from 57 per cent in 1950 to around 16 per cent of GDP now. It is a known fact that the more developed a country is the lesser is the contribution of agriculture. Today almost 60 per cent of the population depends directly or indirectly on agriculture. The greater independence of working population on agriculture indicates the underdevelopment of non-agricultural activities in the country. Agriculture provides raw materials to leading industries such as cotton textiles and sugar industries. Not only this, the workers in industries depend on agriculture for their food. Agriculture also provides the market for a variety of goods.

2.1 OBJECTIVES

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

- Understand the nature and importance of agriculture in India
- Discuss the various land use patterns in India
- Describe the changes in cropping pattern of Madhya Pradesh
- Elucidate the trends in agriculture production and productivity
- Learn about green revolution
- Explain the various aspects of agriculture marketing

2.2 AGRICULTURE: NATURE AND IMPORTANCE

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A number of agricultural commodities like tea, coffee, spices and tobacco constitute our main items of export. This amounts to almost 15 per cent of our total exports. Hence, agriculture provides foreign exchange which helps us to buy machines from abroad. It also maintains a balance of payments and makes our country self-sufficient. Tertiary sector provides helpful services to the industries and agriculture like banking, warehousing etc. Internal trade is mostly done in agricultural produce. For example, various means of transport get the bulk of their business by the movement of agricultural goods. State governments get a major part of their revenue in terms of land revenue, irrigation charges, agricultural income tax etc. The Central Government also earns revenue from export duties on the agricultural production. Moreover, our government can raise substantial revenue by imposing agricultural income tax. However, this has not been possible due to some political reasons.

Our agriculture has brought fame to the country. India enjoys first position in the world as far as the production of tea and groundnuts are concerned. Agriculture plays an important role in internal trade. It is because of the fact that 90 per cent of our population spends 60 per cent of their income on the purchase of the items like food, tea, milk, etc.

Agriculture has been a way of life and continues to be the single most important livelihood of the masses. Agricultural policy focus in India across decades has been on self-sufficiency and self-reliance in food-grains production. Considerable progress has been made on this front. Food grains production rose from 52 million tonnes in 1951-52 to 244.78 million tonnes in 2010-11. In 2017-18, total food grain production was estimated at 275 million tonnes. Table 2.1 provides the key indicators of the agricultural sector in India.

Table 2.1 *Agriculture Sector: Key Indicators*

(per cent)

Sl. No.	Item	2009-10@	2010-11*	2011-12 **
1.	GDP – share and growth (at 2004-05 prices) Growth in GDP in agriculture & allied sectors	1.0	7.0	2.5
	Share in GDP - Agriculture and allied sectors	14.7	14.5	13.9
	Agriculture	12.4	12.3	
	Forestry and logging	1.5	1.4	
	Fishing	0.8	0.7	
2.	Share in total Gross Capital Formation in the Country (per cent at 2004-05 prices) Share of agriculture & allied sectors in total			
	Gross Capital *Formation*	7.1	7.2	
	Agriculture	6.6	6.6	
	Forestry and logging	0.1	0.1	
	Fishing	.05	0.5	
3.	Employment in the agriculture sector as share of total workers as per census 2001	58.2		

Source: Central Statistics Office (CSO) and Department of Agriculture and Cooperation.

Notes: @ Provisional Estimates * Quick stimates ** Advance Estimates

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For five consecutive years, from 2004-2005 to 2008-2009, food-grains production recorded an increasing trend in India. However, it declined to 218.11 million tonnes in 2009-2010 due to severe drought conditions in various parts of the country. Normal monsoon in the subsequent year, 2010-11, helped the country reach a significantly higher level of 244.78 million tonnes of food-grains production.

Table 2.2 *Agricultural Production (Kharif) (Million Tonnes)*

Crops	2010-2011	2011-2012 (2nd Advance Estimates)	Percentage increase
Rice	95.98	102.75	7.1
Coarse cereals	43.68	42.08	-3.7
Pulses	18.24	17.28	-5.3
Oilseeds	32.48	30.53	-6.0
Sugarcane	342.38	347.87	1.6
Cotton (Million bales of 170 kgs each)	33.00	34.09	3.3
Jute and Mesta (Million bales of 180 kgs each)	10.60	11.61	9.3

As per First Advance Estimates, the estimated production of major crops during Kharif 2019-20 is as under:

- **Foodgrains** – **140.57** million tonnes.
  - o Rice – 100.35 million tonnes.
  - o Nutri / Coarse Cereals – 32.00 million tonnes.
  - o Maize – 19.89 million tonnes.
  - o Pulses – 8.23 million tonnes.
  - o Tur – 3.54 million tonnes.
- **Oilseeds** – **22.39** million tonnes.
  - o Soyabean – 13.50 million tonnes
  - o Groundnut – 6.31 million tonnes
- **Cotton** – **32.27** million bales (of 170 kg each)
- **Jute & Mesta - 9.96** million bales (of 180 kg each)
- **Sugarcane – 377.77** million tonnes

Check Your Progress

1. Write the names of agricultural commodities which are the main items of export in India.
2. Which country produces the maximum tea in the world?

2.3 LAND USE PATTERN

The definition of 'land use planning' by the United Nation's Food and Agriculture Organization (UNFAO) and the United Nations Environment Programme (UNEP) published in 1999 reflects consensus among the international organizations. Land use planning is understood as a systematic and iterative procedure carried out in

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order to create an enabling environment for sustainable development of land resources which meets people's needs and demands. It assesses the physical, socio-economic, institutional and legal potentials and constraints with respect to optimal and sustainable use of natural resources and land and empowers people to make decisions about how to allocate those resources.

Another definition of 'land use planning' is the process of evaluating land and alternative patterns of land use and other physical, social and economic conditions for the purposes of selecting and adopting those kinds of land use and course of action best suited to achieve specified objectives. Land use planning may be at the national, regional, state, district, watershed, city, village or other local levels.

There is a lack of comprehensive and integrated land use planning system in the country, which enables rationale and optimal land utilization. The current land use planning system in the country is inadequate and does not cover all the local, regional as well as state levels. There is a need for a systematic and scientifically based land use planning system.

The Constitution (Seventy-fourth Amendment) Act, 1992 provides for District Planning and Metropolitan Area Planning that consolidates plans of both panchayats and municipalities having regard to spatial (land use) planning. The District Plans prepared currently, in general, do not cover spatial (land), environmental as well as urban concerns.

Since district level spatial land use plans do not generally exist, the regional development triggered by urbanization or industrialization, or the regional development that needs to be regulated due to the presence of large eco sensitive zones call for initiating land use planning of such (urban or industrial or eco sensitive) areas so as to ensure sustainable development.

If no immediate actions are taken, the unplanned and haphazard development has potential to cause adverse impacts, including land use conflicts with neighbouring land uses, particularly with agricultural areas, rural uses, natural resource areas and environmentally sensitive and fragile ecosystem, as well as of losses of productive land and ecosystem services.

Major Issues

Let us study the major issues faced in land use planning and policy in India.

1. **Competing and conflicting land uses are a major concern**: Competing and conflicting land uses are a major concern. 'Competing land uses' are those that compete for the same parcel of land for their location. Such land uses competing in rural areas with agriculture could be, for example, cash crops or food crops; industrial or agro-industrial uses; Special Economic Zones (SEZs) or Special Investment Regions; highways; peri-urban development or outgrowth, integrated townships or theme cities, and mega projects (for example, industrial corridors/power plants/ports).

   'Conflicting land uses' are those that are in conflict with the existing land use. Certain land uses cause impacts on other land uses nearby. Such conflicting land uses include, for example, agriculture in forest areas, mining in forest areas, highways in eco-sensitive areas, polluting industries in rural or eco-sensitive areas, urban/industrial development on agriculture lands, agriculture encroaching into forest lands, and urban waste disposal in peri-urban areas. The basic concern is the negative impact that such land uses cause on other land uses. For example, an industrial area can cause impacts on the neighbouring areas due to air pollution, or an urban expansion can lead to destruction of the ecosystem service of natural drainage thereby impacting the existing lakes and water bodies. Indiscriminate land use changes in eco-sensitive zones could directly affect wildlife habitat and thereby impacts local and global biodiversity.

Both competing and conflicting land uses frequently are also the reason for social conflicts between the local population and the authorities and prospective investors.

Between 1950-1951 and 2007-2008, land utilization in India underwent significant changes. While the lands under net sown area, forests and non-agricultural uses have increased, the lands under 'other areas' uses have almost halved from 40.7 per cent to 22.6 per cent meaning that for future land demands, the forest lands and agricultural lands may have to be used. Also, the per capita amount of agricultural land has reduced by 67 per cent from 1951 (0.48 Ha) to 2007-2008 (0.16 Ha). Arable land in India was reported at 0.11952 is 2015.

2. **Degradation of soil and land:** Degradation of soil and land due to soil erosion and other degradation processes is a severe problem in many regions in India. As per available estimates, total degraded land in the country is about 120.40 million Ha. Land degradation leads to decline in soil fertility, creates problems of alkalinity/salinity/acidity and water logging.

   The degraded soils are often used by marginal farmers and the tribal population. According to studies, the economic losses of reduced productivity of these lands count for approximately 285,000 million, which is about 12 per cent loss of total value of productivity of these lands.

   Water resource projects are frequently being planned and implemented in a fragmented manner without giving due consideration to optimum utilization of water resources, environmental sustainability and holistic benefit to the people. The natural water bodies and drainage channels are being encroached upon and diverted for other purposes. The groundwater recharge zones are often blocked. There is growing pollution of water sources, especially through industrial effluents, which is affecting the availability of safe water besides causing environmental and health hazards. In many parts of the country, large stretches of rivers are both heavily polluted and devoid of adequate flows to support self-purification, aquatic ecology, cultural needs and aesthetics. The characteristics of catchment areas of streams, rivers and recharge zones of aquifers are changing as a consequence of land use and land cover changes thereby affecting water resource availability and quality.

   Due to climate change, there are increasing temperatures and issues of drought and flooding. Land use changes, such as conversion of forest lands

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to agriculture or industrial use can be a factor in increasing CO2 (carbon dioxide) (a dominant greenhouse gas) atmospheric concentrations, thereby contributing to climate change.

3. **Growing urbanization and industrialization:** Due to growing urbanization and industrialization, as well as usage of chemicals for agriculture, there are threats of pollution and disasters. There are potential impacts from handling, storage and transportation of hazardous chemicals/ materials and wastes, emission of pollutants including toxic emissions, discharge of effluents, especially those that are not easily biodegradable and toxic, pollution of groundwater, streams, rivers, lakes, oceans, or other bodies of water, industrial disaster risks and natural disaster risks. There are also growing risks to biodiversity with loss of species and threat to ecosystem services.

India's territory includes 3.287 million sq. km. (328.73 million Ha) with west to east extent of approx. 3,000 km and north to south extent of approx. 3,200 km. Numerous developmental activities demand land and in the process of progression of development, land use changes take place with time. If not regulated such changes can become detrimental in the long run for sustainable development. During the period 1950-1951 to 2007-2008, the net sown areas in the country have increased from 41.8 per cent to 46.1 per cent. The forest areas have increased from 14.2 per cent to 22.8 per cent, and the areas under non-agriculture uses, which include industrial complexes, transport network, mining, heritage sites, water bodies and urban and rural settlements has increased from 3.3 per cent to 8.5 per cent.

These increases of land use have led to a reduction in land use elsewhere. During the same period (1950-1951 to 2007-2008), the 'other areas' that include barren and uncultivable land, other uncultivated land excluding fallow land have drastically decreased by nearly half from 40.7 per cent to 22.6 per cent.

The mining areas are about 0.17 per cent of the total land of India, the urban areas are about 2.35 per cent and the industrial areas are much less than 1 per cent. However, with rapid industrialization and urbanization, the associated infrastructure development, the lands under these uses will further increase. These increases of demands of land will require land to be taken away from other uses. So far, the land under 'other areas' were being used. However, these lands may no further be usable as they maybe under steep hills or other such terrains or uses that constrain their use for developmental purposes. In such cases, the demands for additional lands will be resorted to from agricultural uses or forests uses which would be detrimental.

There is a need to strategize utilization of land and its management so that the land use changes are not detrimental to sustainable development of India.

Due to growing population in India, the per capita availability of land has reduced from 0.89 Ha in 1995 to 0.27 Ha in 2007-2008. It is estimated that by 2030, India will become the most populated country on earth with 17.9 per cent of the world's total population. With this, the per capita land availability will further reduce.

Such reducing per capita land availability will have a direct bearing on the land requirements for various developmental purposes and community development. The concerns become severe when the land availability is reduced directly in the areas that support human life or natural resources such as water or ecosystems including flora and fauna and agricultural areas.

As per the 2011 Census, 68.84 per cent of the country's population lives in 6,40,867 villages and the remaining 31.16 per cent lives in 7,935 urban centres. Although agriculture presently accounts for only about 14 per cent of the Gross Domestic Product (GDP), it still is the main source of livelihood for the majority of the rural population, and provides the basis of food security for the nation. Therefore, fertile agriculture land and clean water resources need to be protected effectively for providing and ensuring livelihood to rural population and food security for the nation.

Currently, India produces about 245 million tonnes of food grains while for 2020 it is estimated that the demand for food grains shall rise by 25 per cent to 307 million tonnes. The agricultural productivity is currently half of what it is in many other countries. The solution for food productivity and security may not lie in stopping diversion of agriculture land in all circumstances, but also in increasing food production through higher productivity. However, the increasing use of soil can cause threat to its productivity, as it was experienced in several other countries. Hence, the stark question is whether soils will be productive enough to sustain a population of one billion by the end of the century at higher standards of living than those prevailing now.

There is a need for long-term plans to meet the food security as well as livelihood issues. For this purpose, reasonable restrictions on acquisition and conversion of at least certain types of agricultural land should be introduced. As per the National Policy for Farmers, 2007 (NPF 2007), prime farmland must be conserved for agricultural use and except under exceptional circumstances the use should not be altered. There is a need to protect agricultural areas that are essential for food security including the prime agricultural lands, command areas of irrigation projects, and double cropped land. There is also a need to protect agricultural lands that are essential for livelihood of rural and tribal population.

India comprises seven climate regions in three groups: (a) tropical wet-humid group with tropical wet (humid or monsoon climate, and tropical wet and dry or savannah climate; (b) dry climate group with tropical semi-arid (steppe) climate, sub-tropical arid (desert) climate and sub-tropical semi-arid (steppe) climate; (c) sub-tropical humid climate group with sub-tropical humid (wet) with dry winters climate and the mountain, or highland, or alpine climate.

India comprises nine bio-geographic regions. India is one of the twelve mega-biodiversity countries in the world, comprising over 91,000 animal and 45,500 plant species. Nearly 6,500 native plants are still used prominently in indigenous healthcare. Furthermore, India is recognized as one of the eight so called 'Vavilovian Centres of Origin and Diversity of Crop Plants', having more than 300 wild ancestors and close relatives of cultivated plants still growing and evolving under natural conditions.

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India has a wide range of soil, classified into 27 broad soil classes. Alluvial soil, black cotton soil, and red soil covering a total of approximately 56 per cent of the total land area, which are considered suitable for a wide range of crops. Laterite and lateritic soil and desert soil covering another 15 per cent of the land are not suitable for agriculture. India's water resources are limited and scarce. The country has only 4 per cent of the world's renewable water resources at its disposal. Furthermore, these limited resources are distributed unevenly over time and space. In addition, there are challenges of frequent floods and droughts in one or the other part of the country.

The total area of the recorded forests in the country (2003) is 77.47 million Ha, or 23.57 per cent of the country's geographic area. Of the forest areas, 51.6 per cent are notified reserved forests, 30.8 per cent are notified protected forests and the remaining 17.6 per cent are un-classed forests. The National Forest Policy of 1988, the Indian Forest Act and various other State legislations on the matters pertaining to forests provide for the guiding principles, and ways and procedures through which legally declared forests are to be utilized and administered. These legislations not only affect the way forest lands are to be utilized, these have profound impact on the utilization of non-forest lands as well.

India is rich in ample resources of a number of minerals and has the geological environment for many others. India produces 89 minerals out of which 4 are fuel minerals, 11 metallic, 52 non-metallic and 22 minor minerals.

The level of urbanization in India has increased from 17 per cent in 1951 to 31 per cent in 2011. According to the world population prospects by the United Nations, 55 per cent population of India will be urban by the year 2050. With this pattern of urbanization, the urban population of 377 million as in 2011 will be 915 million by the year 2050. There is need for proper planning of urban areas and the regions around.

The creation of a large number of SEZs as per the Special Economic Zone Act of 2005, involving large extent of fertile agricultural land have added substantially to already aggravated land relations in India. An SEZ may bring far reaching changes in the local economy. However, people lose access to farmlands, grazing grounds water bodies and other common resources. The agrarian protests against the SEZs are prevalent everywhere in India. These protests have resulted in a paradigm shift in the government policy like, putting a cap of 5,000 Ha of land for each SEZ and an important decision that governments will not invoke its powers under 'eminent domain' and 'public purpose' to acquire land for SEZs. However, these policy changes may not prove adequate to address the core issues unless there is accompanying land use planning strategy, particularly because of large requirements of land. The requirements of lands for SEZs which are given 'in–principle approval' stands at 2,00,000 Ha, which, as per the estimates of the Committee on State Agrarian Relations and Unfinished Task in Land Reforms, is capable of producing around 1 million tonnes of food grains. There is a need for appropriate land utilization and management strategy and land use planning to cater to the growing industrialization needs.

Need for Policy Framework

There is a need for a policy framework to be formulated at the national level incorporating concerns of various sectors and stakeholders so as to ensure optimal utilization of land resource through appropriate land use planning and management.

Such a policy should provide guiding framework for the States to adopt and formulate their own policies incorporating their State specific concerns. The States should develop land use policies by consulting all stakeholders and ensuring appropriate legal backing. Further, detailed land use strategies and plans should be developed in accordance with these policies so as to achieve sustainable development.

A 'National Land Use Policy Guideline and Action Points' (1988) was prepared by the Government of India, Ministry of Agriculture after intensive deliberations. In the said policy, framing of suitable legislation and its sincere enforcement were stressed by imposing penalties, of violation thereof. The said policy guidelines were placed before the 'National Land Use and Wasteland Development Council' under the chairmanship of Prime Minister and its first meeting was held on 6 February 1986. The Council agreed to the adoption of policy and circulated the same throughout the country for adoption after suitable considerations at the State level. However, the policy did not make the desired impact.

The proposed policy framework at national level is hereinafter referred to as the 'National Land Utilization Policy'. The policy seeks to order and regulate land use in an efficient and rational way, thus, taking care of the needs of the community while safeguarding natural resources and minimizing land use conflicts.

There are several existing policies relating to land use. These include the National Water Policy 2013, the National Land Use Policy Outlines 1988, the National Forest Policy 1988, the Policy Statement of Abatement of Pollution 1992, the National Livestock Policy Perspective 1996, the National Agricultural Policy 2000, the National Population Policy 2000, the National Policy and Macro-level Strategy and Action Plan on Biodiversity 2000 and the National Environmental Policy 2006 and so forth.

Land use/land cover classification system

Recent changes in time and increasing demand of availability of information related to land use and land cover has put forward the urgent need of designing a standard classification system. There are various categories and procedures that provide land data and mapping techniques comprising different scales related to States and Union Territories.

Growing need of updated information along with land cover maps comprising land cover classification system involves suitable mapping consisting of a scale 1:250,000 as developed by the National Remote Sensing Agency (NRSA). The classification system provided a conceptual framework that became the basis of discussion for over 40 institutions and departments out of which the twenty-two-fold classification system was adopted nationwide for land cover and land use analysis.

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Land Use/Land Cover Analysis

The multi-date satellite data was analysed that helped in identifying the map details related to crop land with reference to seasonal crops such as kharif and rabi. This also included land cover analysis related to different lands like fallows, forests and water bodies.

NRSA is actively involved in collecting information along with collaborating with other agencies through the use of hybrid methodology along with visual and digital methods. The data obtained included 442 districts of the country, out of which 274 were analysed through visual techniques, while remaining 168 districts were covered using digital techniques. For the purpose of digital analysis, the project required different software modules that were developed and integrated through the images that were commercially available using the analysis software.

Reconciliation of area statistics generated by remote sensing and other techniques

The statistics derived from the satellite data on the district level for the time period 1988 to 1989 were used to draw comparison with the figures published by the government agencies involved in it. The data obtained was analysed for consistency and compatibility.

At the first instance, the comparison was made through the technique of matching different data pertaining to different land use classes that comprised of one-to-one common group. The second criterion included comparisons drawn between explanations related to different classes related to nine-fold classification.

Nine-Fold Classification of Land Use

Statistics on land use are collected at present in the form of a nine-fold classification on a yearly basis. Out of a geographical area of 329 million hectares (reporting area) statistics are available only from 305 million hectares (non-reporting area), which makes some areas to the extent of 7 per cent still not covered or classifiable under the nine-fold classification. The reporting area is classified into the following nine categories:

(i) **Forests:** This includes all lands classed as forest under any legal enactment dealing with forests or administered as forests, whether state-owned or private, and whether wooded or maintained as potential forest land. The area of crops raised in the forest and grazing lands or areas open for grazing within the forests should remain included under the forest area.

(ii) **Area under non-agricultural uses:** This includes all lands occupied by buildings, roads and railways or under water, for example, rivers and canals and other lands put to uses other than agriculture.

(iii) **Barren and uncultivable land:** It includes all barren and uncultivable land like mountains, deserts and so forth. Land which cannot be brought under cultivation except at an exorbitant cost should be classed under uncultivable land whether such land is in isolated blocks or within cultivated holdings.

(iv) **Permanent pastures and other grazing lands:** This include all grazing lands whether they are permanent pastures and meadows or not. Village common grazing land is included under this head.

(v) **Land under miscellaneous trees, crops and others:** This includes all cultivable land which is not included in 'net area sown' but is put to some agricultural uses. Land under Casuarina trees, thatching grasses, bamboo bushes and other groves for fuel and others which are not included under 'Orchards' should be classed under this category.

(vi) **Cultivable waste land:** This includes lands available for cultivation, whether not taken up for cultivation or taken up for cultivation once but not cultivated during the current year and the last five years or more in succession for one reason or other. Such lands may be either fallow or covered with shrubs and jungles, which are not put to any use. They may be assessed or may lie in isolated blocks or within cultivated holdings. Land once cultivated but not cultivated for five years in succession should also be included in this category at the end of five years.

(vii) **Fallow lands other than current fallows:** This includes all lands, which were taken up for cultivation but are temporarily out of cultivation for a period of not less than one year and not more than five years.

(viii) **Current fallows:** This represents cropped area, which are kept fallow during the current year. For example, if any seeding area is not cropped against the same year it may be treated as current fallow.

(ix) **Net area sown:** This represents the total area sown with crops and orchards. Area sown more than once in the same year is counted only once.

Check Your Progress

3. Define land use planning.
4. What does the Constitution (seventy-fourth amendment) Act, 1992 provide for?

2.4 CHANGES IN CROPPING PATTERN OF MADHYA PRADESH

Madhya Pradesh is the second largest Indian State in size with an area of 308,000 sq. km. Madhya Pradesh has remarkable agrarian diversity having a wide range of climatic backcloth within and between different crop seasons, variety of soil types ranging from light textured soil to very heavy rich clay vertisols, each with their own inherent problems, and cropping patterns. The State is divided into ten agro-climatic zones.

The main crops grown in kharif season are Soybean, Paddy, Maize, Bajara and Tur etc. and in rabi season Wheat, Gram, Mustered, Cotton, Jowar and vegetables. Along with this Sugarcane, Custard apple and Banana also grown in some districts. Madhya Pradesh is highest producer of pulses, Gram and Soybean contributing 21.38%, 40.33% and 59.92%, respectively and is second in oil seed production; Jowar, Masoor contributing 22.10, 14.11, and 22.30%, respectively to the total production of India.

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The growth in agricultural sector in Madhya Pradesh was around 9.7 per cent per annum during the 2005- 2015. This is the highest growth rate that has ever been registered in agriculture by any major state of India over a period of a decade.

Several measures have been taken by the state government to boost the agriculture sector in the state. Out of these, three interventions have played a crucial role i.e., a strong procurement system for wheat along with bonus over MSP for wheat, expanded irrigation and all-weather roads to make the commute of farmers easier to the markets. The irrigation coverage through tube-wells was put well in place by the state government and expanded with an initial strategy to provide good quality power supply to farmers during the irrigation season of wheat. Financial resources were also utilized to provide canal irrigation to the farmers, thereby completing a number of major and medium irrigation projects that had been under construction for several years. With the expansion of irrigation cover for wheat cultivation, production and acreage under the crop showed significant improvements.

Cropping Pattern

Primarily a food grain growing state with around 62 percent of the gross cropped area (GCA) in Madhya Pradesh is dedicated exclusively to food grain and 32 per cent to oil seeds in TE 2014-2015. A larger apportion of the food grains is devoted to cereals (39.4 per cent of GCA) in comparison to pulses (23 per cent). The most important cereal grown in the state is wheat with around 24 per cent of GCA devoted to the crop. With around 13 percent of GCA devoted to gram, it is the most important pulses grown in the state, which is followed by arhar (2 percent of GCA and 10 percent of the pulse area). During the rabi season, the major crop grown in the state is wheat which is intercropped with gram in the Kharif season. With a 25.4 percent of FCA devoted to it, Madhya Pradesh mostly grows oilseeds specifically soybean.

Despite the fact that Madhya Pradesh is one of the major food grains producing states of the country, there has been a significant boon in the cultivation of horticultural crops as cash crops. From 2005-2015, the area covered under the horticultural crops has jumped from 2 percent to 6 percent. Around 43 per cent of the total horticulture area is devoted to vegetables, 37 per cent to spices, 3 15 per cent to fruits and 5.3 percent to medicinal and aromatic plants and flowers.

The area covered under vegetables has also significantly increased in Madhya Pradesh after 2010-2011. Vegetable acreage increased from 284 thousand hectares in 2010-11 to 507 thousand hectares in 2011-12, a growth rate of around 78 per cent. This has almost doubled the share of area under vegetables in GCA from 1.3 per cent in 2010-2011 to 2.3 per cent in 2011-2012. While the expansion of area under vegetables was sudden and took place after 2010-2011, in the case of fruits, the expansion began as early as 2008-09. The area under fruit cultivation increased from 47 thousand hectares in 2007-08 to 92 thousand hectares in 2008-2009.

Another important characteristic of Madhya Pradesh is that it is possible to grow different crops in different parts of the state during different seasons, allowing for uninterrupted agricultural activities throughout the year. Broadly, the state can be divided into following five distinctive crop zones:

(i) **Wheat/Jowar:** Wheat/jowar crop zones are predominant in the northern strip of the state. Some southern areas of the state also have the potential to grow these crops.

(ii) **Cotton/Jowar:** Cotton/jowar crops can be grown in the western, north-western and south western parts of MP, where medium and deep soils are prevalent

(iii) **Rice Zone:** This zone is confined to the eastern part of the state where black soil type is present.

(iv) **Wheat/Rice Zone:** This crop zone is present in the eastern part of MP where the soil type is black

(v) **Wheat Zone:** This crop zone is the central part of the state.

Check Your Progress

5. Which is the second largest Indian state in size?
6. What are the main crops grown in kharif season?

2.5 TRENDS IN AGRICULTURE PRODUCTION AND PRODUCTIVITY

The Department of Agriculture and Cooperation under the Ministry of Agriculture is the nodal organization responsible for development of the agriculture sector. It is responsible for formulation and implementation of national policies and programmes aimed at achieving rapid agricultural growth through optimum utilization of land, water, soil and plant resources of the country.

Agriculture being a State subject, it is the responsibility of the State Governments to ensure growth and development of the sector within their respective State. Accordingly, separate departments have been set up in several states.

Several significant initiatives have been taken in recent years by the Government Rashtriya Krishi Vikas Yojana (RKVY), National Policy for Farmers, 2007, Expansion of Institutional Credit to Farmers, National Rural Health Mission, National Food Security Mission, Rashtriya Krishi Vikas Yojana to incentivise the states to invest more in agriculture, Integrated Food Law, Legislative Framework for Warehousing Development and Regulation, Protection of Plant Varieties and Farmers' Rights (PPVFR) Act, 2001, National Bamboo Mission, etc.

The rapid growth of agriculture is essential not only for self-reliance but also for meeting the food and nutritional security of the people, to bring about equitable distribution of income and wealth in rural areas as well as to reduce poverty and improve the quality of life. Growth in agriculture has a maximum cascading impact on other sectors, leading to the spread of benefits over the entire economy and the largest segment of population.

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India's total geographical area is 328.7 million hectares, of which 141 million hectares is the net sown area, while 190 million hectares is the gross cropped area. The net irrigated area is 57 million hectares with a cropping intensity of 134 per cent. The total irrigation potential in the country has increased from 81.1 million ha in 1991- 92 to 102.8 million ha in 2006-07.

The overall production of foodgrains was estimated at 217.3 million tonnes in 2006- 07. Between 1950-51 and 2006-07, production of foodgrains increased at an average annual rate of 2.5 per cent compared to the growth of population which averaged 2.1 per cent during this period. As a result, India almost became self-sufficient in foodgrains and there were hardly any imports during 1976-77 to 2005-06, except occasionally.

The increase in foodgrain production in 2006-07 was largely because of higher production of wheat by 6.5 million tonnes (9.3 per cent) and of pulses by 0.8 million tonnes (6 per cent). There was a decline in production of oilseeds (3.7 million tonnes or 13 per cent) compared to the production in 2005-06. The production of non-food crops, particularly sugarcane, cotton and jute (including Roselle), in 2006-07, however, exceeded both the targets and the levels achieved in the previous year.

During the year 2006-07 (up to 30 September 2006), the value of agricultural exports was worth ₹28,157.52 crore as compared to ₹21673.25 crore during April-September 2005. The share of agricultural exports in total export was more than 10 per cent during April- September 2006. Agricultural imports registered a decline during April-September, 2005. The share of agricultural imports in India's total imports showed a decline from 3.70 per cent to 2.88 per cent during the corresponding period. India is the third largest producer and consumer of fertilizers in the world after China and the USA, and contributes about 11.4 and 11.9 per cent to the total world production/ consumption of NPK nutrients respectively. Per hectare consumption of fertilizers has increased from 69.8 kg in 1991-92 to 113.3 kg in 2006-07 at an average rate of 3.3 per cent.

Several significant initiatives have been taken in recent years by the Government in order to reverse the downward trend in agricultural production. Some of these important initiatives include:

- Bharat Nirman
- National Rural Employment Guarantee Programme
- National Horticulture Mission
- Expansion of Institutional Credit to Farmers
- Establishment of the National Bee Board
- Establishment of the National Rainfed Area Authority
- Establishment of the National Fisheries Development Board (NFDB)
- Watershed Development and Micro Irrigation Programmes
- Reforms in Agricultural Marketing and Development of Market Infrastructure
- Revitalisation of Cooperative Sector
- Agri-business Development through Venture Capital Participation by the Small Farmer

- Agri-business Consortium
- Reform and Support for Agriculture Extension Services
- National Rural Health Mission
- National Food Security Mission
- Rashtriya Krishi Vikas Yojana to incentivise the states to invest more in agriculture
- Integrated Food Law
- Legislative Framework for Warehousing Development and Regulation
- Protection of Plant Varieties and Farmers Rights (PPVFR) Act, 2001
- National Bamboo Mission
- Knowledge Connectivity through Common Service Centres (CSC) and IT initiatives

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Rashtriya Krishi Vikas Yojana (RKVY)

It was launched to incentivise the States to increase the share of investment in agriculture in their State plans. It aims at achieving the 4 per cent annual growth in the agriculture sector during the Eleventh Five Year Plan period by ensuring a holistic development of agriculture and allied sectors. It is a State Plan Scheme and the eligibility for assistance under the scheme depends upon the amount provided in the State budgets for agriculture and allied sectors, over and above the baseline percentage expenditure incurred on agriculture and allied sectors. The funds under the RKVY are to be provided to the States as 100 per cent grant by the Central Government. The main objectives of the schemes are to:

- Incentivise the States to increase public investment in agriculture and allied sectors
- Provide flexibility and autonomy to the States in planning and executing agriculture and allied sector schemes
- Ensure the preparation of plans for the districts and the States based on agro-climatic conditions, availability of technology and natural resources
- Ensure that the local needs/crops/priorities are better reflected
- Achieve the goal of reducing the yield gaps in important crops, through focused interventions
- Maximize returns to the farmers

National Food Security Mission (NFSM)

It is a centrally-sponsored scheme, launched with the objective of increasing the production of rice, wheat and pulses by 10, 8 and 2 million tonnes, respectively, over the benchmark levels of production, by the end of the Eleventh Five Year Plan period. The Mission aims at increasing foodgrains production of the above crops through area expansion and productivity enhancement; restoring soil fertility and productivity; creating employment opportunities; and enhancing farm level economy to restore confidence of farmers of targeted districts. It is being implemented in 305 districts of 16 States of the country. Various activities of NFSM

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relate to demonstration of improved production technology, distribution of quality seeds of HYVs and hybrids, popularization of newly released varieties, support for micronutrients, and training and mass media campaign including awards for best performing districts. The identified districts are given flexibility to adopt any local area specific interventions as are included in the Strategic Research and Extension Plan (SREP) prepared for the agriculture development of the district.

National Policy for Farmers, 2007

Government of India has approved the National Policy for Farmers, 2007 taking into account the recommendations of the National Commission on Farmers and after consulting the State Governments. The National Policy for Farmers, among other things, has provided for a holistic approach for development of the farm sector.

The primary focus of this policy is on 'farmer' defined holistically and not merely on agriculture. In that sense, it is much more comprehensive than an Agriculture Policy. The objective is, inter alia, to improve the economic viability of farming through substantially improving net income of farmers. Needless to say, there is emphasis on increased productivity, profitability, institutional support, and improvement of land, water and support services apart from provisions of appropriate price policy, risk mitigation measures and so on. The major goals of the National Policy for Farmers are to:

- Improve economic viability of farming by substantially increasing the net income of farmers and to ensure that agricultural progress is measured by advances made in this income
- Protect and improve land, water, bio-diversity and genetic resources essential for sustained increase in the productivity, profitability and stability of major farming systems by creating an economic stake in conservation
- Develop support services including provision for seeds, irrigation, power, machinery and implements, fertilizers and credit at affordable prices in adequate quantity for farmers
- Strengthen the bio-security of crops, farm animals, fish and forest trees for safeguarding the livelihood and income security of farmer families and the health and trade security of the nation
- Provide appropriate price and trade policy mechanisms to enhance farmers' income
- Provide for suitable risk management measures for adequate and timely compensation to farmers
- Complete the unfinished agenda in land reforms and to initiate comprehensive asset and Aquarian reforms
- Mainstream the human and gender dimension in all farm policies and programmes
- Pay explicit attention to sustainable rural livelihoods
- Foster community-centred food, water and energy security systems in rural India and to ensure nutrition security at the level of every child, woman and man
- Introduce measures which can help attract and retain youths in farming and processing of farm products for higher value addition by making it intellectually stimulating and economically rewarding
- Make India a global outsourcing hub in the production and supply of the inputs needed for sustainable agriculture, products and processes developed through biotechnology and Information and Communication Technology (ICT).
- Restructure the agricultural curriculum and pedagogic methodologies for enabling every farm and home science graduate to become an entrepreneur and to make agricultural education gender sensitive
- Develop and introduce a social security system for farmers.
- Provide appropriate opportunities in adequate measure for non-farm employment for the farm households.

Check Your Progress

7. Which organization is responsible for development of the agricultural sector?
8. How much is India's total geographical area?
9. Why was Rashtriya Krishi Vikas Yojana (RKVY) launched?

2.6 GREEN REVOLUTION

The Green Revolution was a programme launched by the Government of India for agricultural modernization. It was largely funded by international agencies and focused on providing high-yielding variety (HYV) or hybrid seeds along with pesticides, fertilizers and other inputs to farmers. The Revolution was based on the biochemical innovations that include high-yielding varieties, chemical fertilizers and pesticides.

Basics of Green Revolution

The term 'Green Revolution' is mainly applicable to a period of Indian agriculture from 1967–1978. The efforts at achieving food self-sufficiency, made between 1947 and 1967, were not entirely successful. The efforts till then largely concentrated on expanding the farm lands but starvation deaths were still being reported in the newspapers. In a perfect case of Malthusian economics, the population was growing at a much faster rate than that of food production and this required drastic action to increase yield. The solution came in the form of the Green Revolution. However, it must be noted that the term 'Green Revolution' is a general one that is applicable to successful agricultural experiments in various countries and is not specific to India.

The Green Revolution programmes were introduced only in areas that had assured irrigation because sufficient water was necessary for the new seeds and methods of cultivation. It was targeted mainly at the wheat and rice-growing areas. As a result, only certain states such as Punjab, western Uttar Pradesh, coastal Andhra Pradesh and parts of Tamil Nadu received the first wave of the Revolution.

There are a number of components of this approach, which are as follows:

1. Use of seeds with improved genetics, that is, improved technology in the form of new high-yielding varieties (HYVs) of crops
2. Various practices consisting of appropriate application of chemical fertilizers, pesticides and irrigation facilities which are necessary for the technology to be effective
3. An overall strategy including government policies for the provision and subsidy on inputs, remunerative prices for output and availability of credit
4. Continued expansion of farming areas
5. Double-cropping on existing farmland

This has been the broad strategy for agricultural growth followed by India since the mid 1960s.

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Factors Responsible for Adopting New Programmes in Agriculture

The factors that led to the adoption of new programmes in agriculture are as follows:

- **Food shortage:** India was facing food shortages from the mid-1950s to the mid-1960s. This created a national crisis, despite the very creditable growth of agricultural output between 1949 and 1965 of about 3 per cent per annum. During this period, agricultural growth had begun to stagnate. The massive jump in population growth after Independence from about 1 per cent in the previous fifty years to about 2.2 per cent per annum, the slow rise in the per capita income and the huge (and rising with each Five Year Plan) outlay towards planned industrialization put long-term pressures on Indian agriculture. This, for example, created a demand for food which the Indian markets were not able to meet fully. From the mid-1950s, food prices experienced an upward push. To meet the food shortage and to stabilize prices, India was forced to import increasing amounts of food.
- **Controversial agreements under the PL-480 scheme:** The controversial agreements made by India to import food from the United States of America under the PL-480 scheme started in 1956. Nearly three million tonnes of food grains were imported under this scheme in the very first year and the volume of imports kept rising thereafter, reaching more than four and a half million tonnes in 1963. During this period came the two wars with China (1962) and Pakistan (1965) and two successive drought years in 1965-66 leading to the decline of agricultural output by 17 per cent and food output by 20 per cent. Food prices shot up, rising at the rate of nearly 20 per cent per annum between 1965 and 1968. India was forced to import more than ten million tonnes of food grains in 1966. It is in this moment of crisis, with famine conditions emerging in various parts of the country, especially in Bihar and Uttar Pradesh, that the US threatened to renege on commitments of food exports to India.
- **Policy of economic self-reliance and self-efficiency:** Given this scenario of the mid-1960s, economic self-reliance and particularly food self-sufficiency became the top priority objectives of the Indian economic policy and for that matter, of the foreign policy.

The New Agricultural Strategy began to be implemented in right earnest. The Prime Minister then, Lal Bahadur Shastri, Food Minister C. Subramaniam and Indira Gandhi (who followed Shastri in 1966 after his brief tenure) all fully supported and crafted this basic transition in the strategy for developing Indian agriculture. The World Bank-appointed Bell Mission recommended such a transition and the US pressed in its favour, but they, appear to have been 'leaning on open doors', as a considerable consensus in favour of such a change had emerged within India.

Critical inputs like the high- yield variety (HYV) seeds, chemical fertilizers and pesticides, agricultural machinery like tractors and pump sets, soil-testing facilities, agricultural education programmes and institutional credit were concentrated on areas which had assured irrigation and other natural and institutional advantages. Around 32 million acres of land, about 10 per cent of the total cultivated area, was, thus, initially chosen for receiving the programme benefits on top priority.

Phases of the Green Revolution

In the first phase of the Green Revolution, 1962–65 to 1970–73, an all India compound growth rate of 2.08 per cent per year was achieved but it was mainly in certain regions such as the north-western region of Punjab, Haryana and western Uttar Pradesh (UP). Punjab registered a stupendous rate of growth at 6.63 per cent.

In the second phase, 1970–73 to 1980–83, with the extension of HYV seed technology from wheat to rice, the Green Revolution spread to other parts of the country, notably eastern UP, Andhra Pradesh (particularly the coastal areas), parts of Karnataka and Tamil Nadu and so on. Regions like Maharashtra, Gujarat and Andhra Pradesh now grew much faster than the all-India growth rate of 2.38 per cent per year.

The third, and the most recent phase of the Green Revolution, 1980–83 to 1992–95, shows very significant and encouraging results. The Green Revolution now spread to the erstwhile low-growth areas of the eastern region of West Bengal, Bihar, Assam and Orissa, with West Bengal achieving an unprecedented growth rate of 5.39 per cent per annum. Other regions, particularly the southern region and Madhya Pradesh and Rajasthan of the central region grew rapidly as well. In fact, for the first time, the southern region registered a higher rate of growth than the north-western region. By the end of the third phase, the coefficient of variation of the output growth levels and yield (per hectare) levels between the various states had fallen substantially compared to earlier decades. This period, therefore, saw not only a marked overall (all India) acceleration of the growth of agricultural output touching an unprecedented growth rate of 3.4 per cent per year but also witnessed a much more diversified growth pattern, considerably reducing regional inequality by increasing the spread of rural prosperity.

Between 1967–68 and 1970–71, food grain production rose by 35 per cent. Again, between 1964–65 and 1971–72 aggregate food production increased from 89 to 112 million tonnes, calculated to be a 10 per cent per capita increase. Net food imports fell from 10.3 million tonnes 1966 to 3.6 million in 1970, while food availability increased from 73.5 million tonnes to 99.5 million tonnes over the same period.

It has been believed that if it were not for the new agricultural strategy, India would have to import a minimum of about 8–10 million tons of wheat yearly, at a cost of $600–800 million. Food availability continued to increase sharply to 110.25million tonnes in 1978 and 128.8 million tonnes in 1984, putting an end to India's woes related to food shortage. By the 1980s, not only was India self-sufficient in food with buffer food stocks of over 30 million tonnes but it was even exporting food to pay back earlier loans or providing loans to food deficit countries.

Impact of the Green Revolution

The strategy using which the Revolution spread and its impact in various regions of India has been explained ahead in detail.

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- **Increased food production:** From the mid-1960s to the 1970s, there was a period during which the production of food grains grew by about 2.21 per cent per annum and the total agricultural output grew by about 2.29 per cent per annum. Unlike the first phase of the Green Revolution, agricultural growth in this phase was largely a result of growth in agricultural yields at a time when the scope for further expansion of area under cultivation was limited.

  Given the nature of this developmental strategy, agricultural growth in the second phase was unequal across regions. The north and the north-western states grew much faster than the eastern and southern parts of India.

- **Agriculture became broad-based:** In the 1980s, agriculture became broad-based primarily owing to the spread of Green Revolution to eastern India. Over the decade, food grain production grew at a rate of 2.9 per cent per annum and total agricultural output grew at the rate of about 3.43 per cent per annum.

  In this period, while agricultural yields stagnated in most of the early Green Revolution areas like Punjab, eastern India showed a marked acceleration in the growth of agricultural output. In particular, in West Bengal, the 'agricultural success story of the 1980s' was witnessed and agricultural output grew at more than 6 per cent per annum. The agricultural strategy between the mid-1960s and 1980s was based on public provisioning of infrastructure, credit, agricultural research and extension. At the same time, institutional mechanisms were built for the government to intervene in the agricultural markets to ensure that on the one hand the farmers got remunerative prices for their produce and on the other food prices in the economy remained low enough to keep inflation in check.

- **Market mechanism to fuel growth:** In the 1990s, the fourth phase of the Green Revolution, the agricultural development strategy shifted to primarily relying on the market mechanism to fuel growth and the withdrawal of a range of other supports that were being provided by the government.

  Various policy initiatives also led to greater integration of the domestic agriculture with the world markets. These changes resulted in a marked decline in agricultural growth. This phase witnessed the lowest growth rate since Independence.

- **Achievements for the Government and Scientists of India:** The Green Revolution has been considered to be a major achievement of the government and of the scientists who contributed to the Revolution.

- **Welfare of farmers:** In most of the areas which have been influenced by the Green Revolution, farmers have switched from a mono-crop system to a multi-crop system one. This has increased their profits as well. A loosening of traditional bonds between landowners and bonded labourers has occurred. India has also witnessed a shift from payment in kind (grain) to payment in cash. New job opportunities have also come up in the agricultural sector.

- **Rapid social and economic transformations:** Several transformations took place in rural areas (in terms of social relations) in those regions that underwent the Green Revolution. These included an increase in the use of agricultural labour as cultivation became more intensive.

Negative Effects of the Green Revolution

In spite of all the benefits, there were certain negative social effects and environmental problems emerged due to the use of new technology in high cultivating areas. These are as follows:

- **Increased inequalities in rural society:** The crops in the Green Revolution were highly profitable, mainly because they yielded more produce. The farmers who were well-off and had access to land, capital, technology and know-how and those who could invest could increase their production and earn more money. However, those who did not have these resources or the capacity to influence the means of production lost the opportunity to increase their income in the social system and became poorer in terms of the social hierarchy.
- **Masses were not benefitted:** The input for new technology was so expensive that it was beyond the reach of the small farmers and only the medium and large land-holding farmers were able to benefit from the technology.
- **Displacement of tenant cultivators:** The Green Revolution, basically, led to commercialization of agriculture and in many cases, it led to the displacement of tenant cultivators. Landowners began to take land back from their tenants and cultivate it because the produce was very profitable. This made the rich farmers better off and worsened the condition of the landless and marginal land holders.
- **Displacement of the service castes:** The introduction of machinery such as tillers, tractors, threshers and harvesters (in areas such as Punjab and parts of Madhya Pradesh) led to displacement of the service castes who used to carry out these agriculture-related activities. This process of displacement also increased the pace of rural–urban migration.
- **Heightened regional inequalities:** The areas that underwent this technological transformation became more developed (Punjab, Haryana and western UP) while other areas stagnated (Bihar, Bengal and eastern UP).
- **Side-effects of modern methods:** A number of scientists have proved that the high-yielding varieties have adverse effects on the health of consumers. Various farmers' movements now suggest a return to the traditional and more organic methods of cultivation.

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Check Your Progress

10. Which years are covered under the Green Revolution of India?
11. Name the areas which benefitted the most because of Green Revolution in India.

2.7 AGRICULTURAL MARKETING

Agricultural marketing is a central parameter in the context of agricultural growth. Timely and remunerative sale of agricultural products motivates the farmers to make strong efforts in all areas of farming. In fact, a rational farmer keeps one eye on the plough and the other on the market. Unfortunately, in India, the agricultural marketing suffers from certain serious drawbacks. Farmers often fail to get fair price for their produce. More often than not, they are the victim of 'Paradox of Plenty': greater the production, lesser the revenue; as prices tends to crash owing to bulk sales in the market.

Accordingly, farming in India is more like a gamble in futures rather than an avenue of secured income. In the context of the Indian agriculture, one can say that marketing is a menace and a serious threat to the inducement to invest. Supply price response is extremely limited in agriculture, because of which farming has failed to emerge as a profit-yielding enterprise. Most farming population in India continues to consider farming merely as a source of subsistence. Exposure of farming to the market forces of supply and demand remains grossly limited owing to the continuation of a primitive marketing structure. To quote Royal Commission Report 'Problem of agricultural growth cannot be fully solved unless agricultural marketing is improved.'

Meaning and Importance of Agricultural Marketing

Agricultural marketing does not simply refer to the sale of agricultural production. It is a very wide term encompassing all such activities that are related to the procurement, grading, transporting and finally selling of agricultural produce. In the words of Faruque, 'Agricultural marketing comprises all operations involved in the movement of farm produce from the producer to ultimate consumer.'

Broadly, agricultural marketing includes the following operations, besides the sale of agricultural production:

- Arrangements regarding collection of agricultural produce
- Arrangement for grading and standardizing the product
- Processing of the products, if required
- Warehousing facility for storage
- Cold storage facility for the perishable products
- Transportation facility
- Credit facility to cope with cash requirement prior to sale or marketing of the produce

Once marketing structure gets developed, marketable surplus starts responding to the relative price structure and the agriculture starts like other business enterprises.

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Different Sources of Marketing Agencies

In the context of agricultural production, there are diverse outlets of marketing in India. Following are the notable ones:

Sale in local markets: Farmers in India tend to sell the bulk of their produce in the unorganized local markets. According to an official estimate, in Bihar and Bengal, 89 per cent and 72 per cent (respectively) of the total rice output is sold in the local markets. The All India Rural Survey Committee observes that, on an average, an Indian farmer sells nearly 35 per cent of his produce in the village itself and 24 per cent of it to the traders and commission agents in the rural areas. In the local markets, the agricultural produce is sold in three different ways:

- In the rural fairs/bazaars
- Directly to the Mahajans or moneylender
- To the mobile traders of the urban areas

Local sale does not fetch any competitive price. It is more like desperate sale at desperate price.

Sale in urban markets: Urban markets in India are of two types:

- Unregulated markets
- Regulated markets

In the unregulated markets, the bulk of the farmers' produce is purchased by the commission agents who also happen to be moneylenders. However, the number of unregulated markets is gradually reducing. Most of the markets are being regulated offering fair price to the farmers under the direct supervision of the market committee.

Other outlets of sale: There are various other outlets of sale. They include the following:

- Sale through co-operative societies
- Direct sale to the government

Direct sale to the government is facilitated through Food Corporation of India, Jute Corporation, Cotton Corporation of India and various other institutes.

Serious Deficiencies of Agricultural Marketing in India

Agriculture marketing in India has certain serious deficiencies. As a result, farmers are often deprived of fair price for their produce. Following are some notable deficiencies:

Lack of finance: Marketing is closely linked with finance. For their financial needs, the small farmers invariably depend on the traders and money lenders. The traders and moneylenders often give loans on the condition that the produce is sold to them directly. Accordingly, the farmers become vulnerable to exploitation.

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Distressed sale: An average Indian farmer seldom sells his produce under the distress of poverty. The compulsion to sell produce immediately after the harvest arises on following account:

- Pressure of repayment of loans to the Mahajans and banks
- Domestic needs of the farmers
- Poor holding capacity of the farmer

Often the farmer has to sell his produce at an unfavourable time and on unfavourable terms.

Lack of collective bargaining: Indian farmers lack collective bargaining. There are millions of small and marginal producers who would hardly form a united front. Often, they bring their produce to the market as individual competitors. The obvious consequence of which is low price and loss of revenue. Royal Commission on Agriculture observed that, 'So long as the farmer does not learn the system of marketing himself or in co-operation with others, he can never bargain better with the buyers of his produce who are often very shrewd and well informed.'

Lack of grading: Farmers in India do not appreciate the significance of grading the produce. Qualitatively good and bad crops are not separated. Mixed with poor quality grain, even the good quality grain fetches a low price.

Lack of proper storage facility: There is a lack of proper storage facility in the rural areas. Crops are often dumped in the underground pits that are vulnerable to pests and insects. This often forces the farmer to sell his produce at times when there is a glut in the market and the price is low.

Multiplicity of intermediaries: Multiplicity of intermediaries is an equally serious defect in the marketing system in India. There is a long chain of intermediaries between the farmer and the final consume, who appropriate the bulk of profit that otherwise would have accrued to the farmers. It is estimated that the farmer gets just 55 paise out of a rupee worth sale of rice, and just 50 paise out of a rupee worth sale of wheat. On an average, farmer receives just 60 per cent of the price paid by the final consumer, the rest 40 per cent goes to the intermediaries.

Lack of market knowledge: Farmer usually lack knowledge of prevailing market conditions. They are solely dependent upon commission agents for the price of their produce. Often they sell their produce at low prices in the nearby markets dominated by commission agents and Mahajans.

Transport bottlenecks: There is a general lack of economical and fast means of transport between the rural and urban areas. Transportation of crop is often done by means of bullock carts. This is a very slow means of transport and is vulnerable to the weather. High transport cost is the net consequence that comes to nearly 20 per cent of the value of output.

Malpractices: Malpractices in the markets is a common feature. These relate to weights and measures, and clandestine fixation of the price of the produce by the brokers and commission agents. Royal Commission on Agriculture very rightly observed, 'Fraudulent practices in the markets are nothing short of day light robberies.'

Strategies to Combat Deficiencies

To combat deficiencies of agricultural marketing system in India the Government has initiated various measures. Some of the important ones are as follows:

Price support: The government offers price support to the farmers with a view to regulate their income. The government offers to buy any quantity of the produce at the stipulated price. The prices are fixed by the Commission for Agricultural Costs and Prices. Support price is annually reviewed with a view to insulating the farmers against the uncertainties of the market.

Standardization of weights and measures: With a view to ensuring uniform weights and measures in different parts of the country, the government introduced the metric system of weights and measures in 1958. In 1966, old weights and measures were completely abolished. Weight inspectors were appointed to supervise the use of metric weights. This has surely reduced exploitation of the farmers in the markets to some extent.

Means of transport: Means of transport have been significantly developed during the last three Five Year Plans. Presently, roads are being developed under the 20-year Hyderabad plan. According to this plan, no village in India should remain at a distance of more than 4 km from the metalled roads.

Development and grading of agricultural produce: Agricultural Produce, Grading and Marketing Act, 1937 was passed with a view to improving the grading of the agricultural produce. It was amended in 1986. Various 'AGMARK' centre have been opened for the standardization of agricultural products. On the recommendation of the Planning Commission in 1952, classification of agricultural produce (for exports) was made compulsory. Central Quality Control Laboratory as well as sixteen regional labs have been established for the standardization of agricultural products. So far nearly 164 products have been classified and standardized.

Storage facilities: To improve storage facilities for the farmers, the government has accorded high priority to the construction of godowns like National Cooperative Development Warehousing Corporation was established in 1956, National Cooperative Development Corporation was established in 1963 and Central Warehousing Corporation was established on March 18, 1962. This corporation constructs godowns for the use of Food Corporation of India. Sixteen state Warehousing Corporations have been set up in different parts of the country. Food Corporation of India has the total storage capacity of 235 lakh tonnes. Godowns of the State Corporation have a total capacity of 114 lakh tonnes. Indian Grain Storage Institute has been established in Hapur. This institute offers a variety of scientific information related to grain saving. Rural Development Corporation has established 3,354 godowns in the rural areas. National Co-operative Development Corporation has established 247 cold storages of the capacity of 7.4 lakh tonnes. In 2003, there were 3,546 cold storages in India. The total storage capacity in India was 429 lakh tonnes. During the Eighth Plan, ₹424 crore has been spent on the expansion of storage capacity in India.

Cooperative marketing societies: Co-operative marketing societies have been established in order to be helpful in the context of agricultural marketing. The

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societies organize for the collective sale of the produce of their members. The farmers are thus, freed from the clutches of the middle men. These cooperative societies also have their own storage facilities.

These also offer credit facilities to their members. A notable progress has been registered to these societies in the States of Punjab, Haryana, U.P., Maharashtra and Gujarat. These societies have shown an audible growth from the Second Five Year Plan onwards. In the year 2001, there were 6,980 primary cooperative marketing societies; 186 central cooperative marketing societies and nineteen state cooperative marketing societies.

The National Agricultural Cooperative Marketing Federation was established in 1964 with the view to coordinate the activities of various societies as well as to encourage the international trade. The societies also work for food corporations in different parts of the country. In 2001, these societies recorded marketing of crops worth ₹13,600 crore.

Marketing intelligence: The government has arranged for the distribution of marketing information for the benefit of the farmers. The All India Market News Service has been launched specifically for this purpose. Prices in different markets of the country are broadcasted everyday through the All India Radio.

Regulated markets: Regulated markets have been established in different parts of the country beginning with the one in Hyderabad in 1943. Some of the important features of these markets are as follows:

- Market committee supervises the marketing operations.
- Producers, traders and representatives of the local self-government are members of marketing committees.
- Traders and brokers are required to obtain licenses for their work.
- Commission and brokerage are determined by the market committees only
- Weights and measures are used under the strict supervision of the committees
- The committees disseminate information regarding the prevailing prices in the market
- For the coordination between the marketing committees of Punjab and Haryana, the government of these states has established State Agricultural Marketing Boards.

Agricultural marketing organization: Directors of Marketing and Inspection has been established with a view to improving agricultural marketing. It focuses on the following activities:

- Research
- Development
- Grading

The Directorate also supervises sale and purchase activities. It has established a Marketing Extension Cell. It publishes marketing newsletter, marketing extension newsletter and agricultural marketing for the benefit of the farmers. It also offers marketing training to the farmers.

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Cooperative Marketing

Agricultural marketing plays a crucial role in the context of agricultural development in India. Success of any policy related to agricultural growth hinges upon an efficient system of marketing. The cooperative agricultural marketing system is of special significance in this respect. In the words of Prof. V. Jesons, 'Cooperative marketing means working together for mutual benefit in solving marketing problems' and cooperation of the farmers for their own common good, relating to the sale of their produce and purchase of various inputs.

Objectives of cooperative marketing

Some of the principal objectives of cooperatively marketing are as follows:

- These societies sell the products of their members at the appropriate price and at appropriate time.
- These societies offer storage facility to the members.
- Loans are offered to the member farmers in times of need.
- Information related to market prices is offered to the members
- The societies purchase and procure all the necessary inputs (seeds, fertilizes, etc.) for their members

Organization and Types of Cooperative Marketing Societies in India

Prior to 1954, cooperative marketing societies in India confined themselves solely to the activity of marketing the products of the member farmers. These were separate from the credit societies. The marketing societies become multipurpose societies after the All India Rural Credit Survey Report. Following are the important types of co-operative marketing societies in India:

- **Primary cooperative marketing societies:** These societies operate at the village level. They are formed not just to handle the marketing problems of their members, but also to monitor their credit needs besides the need for seeds, fertilizers and other inputs. These are nearly 6,980 such societies in India.
- **Central cooperative marketing societies:** Central cooperative societies are formed like a federation of the various primary societies in a particular area. These address issues/problems commonly experienced by primary societies. These are based both in the rural as well as urban areas. There are nearly 186 such societies in India.
- **State cooperative marketing societies:** These are the apex cooperative institutions in different states of the country. They bolster activities of the primary societies through the central cooperative societies. These are generally located in the state capitals, and are nearly nineteen in number.
- **National Agricultural Cooperative Marketing Society (NAFED):** It works at the national level to coordinate the activities of various marketing societies in India, as well as to stimulate domestic and international trade, related to agricultural products.

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Progress of Cooperative Marketing in India

Cooperative marketing societies have made a noticeable progress over time. In 2002, there were 6,980 primary marketing societies, 186 central cooperative societies and nineteen state cooperative societies, besides the national federation of cooperative societies working at the national level. Progress of these societies has been particularly evident in the States of Maharashtra, Gujarat, A.P., Tamil Nadu, Punjab, Haryana and Bihar. In 1951, the cooperative societies handled the sale of agricultural produce worth ₹47 crore. In 1981, this value increased to ₹1,950 crore, and to ₹13,400 crore in the year 2002. These societies are rendering useful services in the process of procurement of staple crops like wheat and rice and commercial crops like cotton and jute.

Merits of cooperative societies: Following observations highlight the merits of cooperative societies:

- **Elimination of middlemen:** Thanks to cooperative societies, a chain of middlemen between the farmer and the final purchaser has been eliminated. This has helped combat in unwarranted price-rise, ensuring at the same time that the farmers get remunerative price for their produce.
- **Reduction in marketing cost:** Marketing expenses have gone down due to the collective sale. It also saves the farmer from various customary deductions relating to weighing and vigilance.
- **Collective bargaining and remunerative price:** Cooperative societies have succeeded in reaping the advantages of collective bargaining because of collective sale of the farmers' produce. Individually, the farmer has very poor bargaining power in India. Collectively, the farmers are able to exercise their bargaining power and appropriate gains in terms of a remunerative price for their produce.
- **Relief from distressed sale:** By offering periodic loans to the members, the cooperative societies have reduced vulnerability of the small and marginal farmers to the rural moneylenders. The availability of loans from the societies has reduced the incidence of distressed sale.
- **Grading and storage:** Facility of grading offered by the society helps in standardization of the produce. The societies also provide storage facility that enhances holding capacity of the farmers. Consequently, income of the farmers also gets enhanced.
- **Procurement facility:** With a view to facilitate procurement of the members' produce, the cooperative societies set up collection centres at convenient locations. It saves farmers' cost of transportation. Also, it alleviates stress on the scarce means of transport in the rural areas.
- **Gluts are avoided:** The societies regulate the flow of sales in the market, avoiding situations of glut and price crash.

Demerits of cooperative societies: Following observations may be noted in this context:

- **Inactive societies:** There is a large number of inactive societies in the country. Nearly 40 per cent of the inactive societies do not handle trade worth even 5 lakhs. These societies have yet to achieve a breakthrough in their operations.
- **Lack of so-ordination:** There is a lack of coordination among the primary, central and state co-operatives. Accordingly, the farmers tend to make independent sale of their produce directly in the market. Perhaps, the traders and commission agents continue to be a convenient source of credit for the farmers.

Suggestions for improvement: Organization and functioning of the cooperative marketing societies show a considerable scope for their improvement. Following are some notable suggestions:

- **Multi-purpose societies:** Cooperative marketing societies should merge with other societies operating in rural areas to form multi-purpose societies. Such societies should be more useful in fostering not only marketing but all parameters of agricultural growth and development.
- **Direct relation with consumers:** Cooperative marketing societies should establish direct relation with the consumers. This will fetch the farmer the maximum possible price for his produce, while the consumer will pay the minimum possible, in the absence of all middlemen.
- **A vision beyond grading and storage:** Cooperative societies should develop a broad vision beyond grading and storage. They should widen their activity network by handling some processing jobs like of separating the fibre and seeds of cotton. This would further enhance effectiveness of the co-operatives and profit margins of the farmers.
- **Government agency:** The societies should function as a Government agency. For instance, the societies should ensure that the Food Corporation of India procures foodgrains only through the cooperative centres, not directly from the markets. Farmers will, thus get appropriate price for their produce; this would also enhance trust of the farmers in the societies.

2.7.1 India's Food Policy

Despite commendable achievement in agricultural production in India, many people still starve in the country. Food security is a major concern of the government. Public Distribution System (PDS) has been established by the Government of India to distribute subsidised food and non-food items to India's poor. Major commodities distributed include staple food grains, such as wheat, rice, sugar and kerosene, through a network of fair price shops established in several states across the country. The Food Corporation of India, a government owned corporation, procures, maintains and issues food grains to the state.

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The Problem of Food Security

Food security implies access by all people at all times to sufficient quantities of food to lead an active and healthy life. As noted by P.V. Srinivasan, an economist, this requires not just adequate supply of food at the aggregate level but also enough purchasing capacity with the individual/household to demand adequate levels of food. As far as the question of 'adequate supply' is concerned, it involves the following dimensions:

- The quantitative dimension (in the sense that the overall food availability in the economy should be sufficient to meet the demand)
- The qualitative dimension (in the sense that the nutritional requirements of the population are properly looked after)

As far as the question of 'enough purchasing capacity' is concerned, it involves the introduction of employment generation programmes so that the income and purchasing power of the people increases. To tackle the quantitative and qualitative aspects of the food security problem, the Government of India relies on the following food-based safety nets:

- Public Distribution System (PDS)
- Integrated Child Development Services (ICDS)
- Mid-Day Meals Programme (MDM)

As far as the issue of providing purchasing power to the people is concerned, various employment programmes have been introduced from time to time.

The nature of the problem: Due to the chronic food shortages that the country faced in the years following independence, the focus of food policy became to achieve self-sufficiency. Green Revolution has enabled the economy to overcome the problems of food grains shortages and build up large stocks of food grains to counter any scarcity conditions.

In fact, as noted by R. Radhakrishna, India achieved self-sufficiency in food grains in the 1970s and has sustained it since then. It improved its capacity to cope with year-to-year fluctuations in food production by building up large buffer stocks through the agency of FCI (Food Corporation of India) and supplying these stocks to the people through the PDS. During some of the recent years, the buffer stocks considerably exceeded the minimum norms causing the problem of 'excess stocks'. In July 2002, the actual stocks of food grains were as high as 63.0 million tonnes (the highest level attained) while the buffer stock norms were 24.3 million tonnes.

As a result, the 'excess stocks' were as much as 38.7 million tonnes. However, stocks have subsequently declined. In fact, stocks of food grains stood at 18.8 million tonnes on January 1, 2006, lower than not only the stock of 21.7 million tonnes on January 1, 2005 but also the buffer stock norms of 20 million tonnes. The main reason for the decline in stocks was the lower stock of wheat. The Government of India had pressed the panic button and in a bid to bolster wheat stocks had increased the procurement price of wheat to ₹850 per quintal in

2007–2008 on the one hand, and had asked State Trading Corporation to import 3 million tonnes of wheat to bridge any shortfall in production (in 2006– 2007 also, State-run firms and private traders had imported 6.5 million tonnes of wheat after production fell to 68.6 million tonnes).

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There are more issues of concern. Analysts point out that while population growth and shift in food habits away from coarse grains with the rise in incomes, will push up the consumption of wheat considerably in years to come, the production is not likely to rise as neither area under wheat is likely to increase nor area any further increases in productivity in evidence. As far as rice is concerned, its production has been more than consumption except 2002–2003. However, rice output has not grown strongly with yields stagnating at 2,000 kgs per hectare since the late 1990s. Even area under rice has tended to fall (it was 45.2 million hectares in 1999–2000 and 41.9 million hectares in 2004–2005 through it rose again to 43.5 million hectares in 2005– 2006). Accordingly, many observers believe that rice production is also beginning to plateau. As far as vegetable oils and pulses are concerned, India already imports their large quantities. For instance, vegetable oil imports were 49.85 per cent (i.e., half) of total consumption in 2004–2005 while pulses imports were 8.83 per cent of total consumption in that year.

The vegetable oils imported in July 2019 comprises, 1,347,882 tons of edible oils and 64,119 tons of non-edible oils.

Even more worrisome is the qualitative aspect of the problem as the following facts clearly come out:

- According to the Global Hunger Index, 2019, India ranked 102 in a group of 117 developing countries.
- According to the World Food Programme, nearly 50 per cent of the world's hungry people live in India.
- About 35 per cent of India's population–over 350 million is food-insecure, consuming less than 80 per cent of the minimum energy requirement.
- Nearly 9 out of 10 pregnant women between 15 and 49 years are malnourished and anaemic.
- Anaemia in pregnant women causes 20 per cent of infant mortality.
- More than 50 per cent children under five are moderately or severely undernourished.
- Almost 2.5 million children under five years die every year in India. Uttar Pradesh alone contributes to 28 per cent of these deaths.

The National Family Health Survey-III (NFHS-III)–the largest ever health survey done simultaneously in twenty-nine states during 2005 and 2006, presents the following startling results:

- 42.4 per cent of undernourished children
- 37 per cent of stunted children

- 17 per cent of wasted children
- 51 per cent of children not fully immunized
- 77 per cent of children suffering from anaemia

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This shows that three in four children in India are anaemic and one in three are stunted.

The nutritional status of children is the worst in Uttar Pradesh. This is clear from the following facts:

- 52 per cent of children under three years of age in Uttar Pradesh are undernourished,
- The State has a high infant mortality rate (IMR) of 72/1,000 live births
- UP contributes to 26.3 per cent of all infant deaths that occur in India.

Public Distribution System in India: Objectives and Expansion of PDS

The basic objective of the public distribution system in India is to provide essential consumer goods at cheap and subsidized prices to the consumers so as to insulate them from the impact of rising prices of these commodities and maintain the minimum nutritional status of our population. To run this system, the government resorts to levy purchases of a part of the marketable surplus with traders/millers and producers at procurement prices. The grain (mainly wheat and rice) thus procured, is used for distribution to the consumers through a network of ration/fair price shops and/or for building up buffer stocks.

In addition to food grains, PDS has also been used in India for the distribution of edible oils, sugar, coal, kerosene and cloth. The most important items covered under PDS in India have been rice, wheat, sugar and kerosene. Together these four items have accounted for 86 per cent of the total PDS sales. Coarse grains (*Jawar*, *Bajra*, maize etc.) virtually do not figure in the PDS as their combined sales have amounted to less than 1 per cent of the total PDS sales. Pulses that constitute an important source of protein for the poor have had a share of less than 0.2 per cent in total PDS sales. PDS in India covers the cards to all those households that have proper registered residential addresses. The number of fair price shops (FPS) has increased over the year from 0.47 lakhs at the end of 1960 to 3.12 lakhs in 1984 and is presently 4.74 lakh. PDS distributes commodities worth more than ₹30,000 crore annually to about 160 million families and is perhaps the largest distribution network of its kind in the world.

The quantities supplied through the PDS outlets remained below five million tonnes by mid-1960s. Throughout the 1970s the quantities remained around 10 million tonnes and during the 1980s, the average was around 16 million tonnes. The offtake from PDS outlets reached a peak level of 19.0 million tonnes in 1991–1992 but, thereafter, tended to decline. In fact, the gap between allocation and offtake from the PDS increased considerably both for rice and wheat but more particularly for wheat. In 1991–1992, the combined allocation of rice and wheat under PDS was 21.92 million tonnes while offtake was 19.0 million tonnes. Thus, the offtake was 86.7 per cent of allocation. In 2001–2002, against the combined allocation of rice and wheat of 30.37 million tonnes under PDS, the offtake was merely 13.84 million tonnes. Thus, offtake was only 45.6 per cent of allocation. This reduced offtake became a serious cause of concern as the unsold stocks in the PDS led to heavy handling and storage costs for the government agencies.

The wide gap between allocation and offtake from the PDS noticed in 1990s was basically due to the reason that the issue prices of rice and wheat had been raised substantiality with the result that the gap between the open market price and the price charged for supplies through PDS (the issue price) got reduced considerably. For example, the issue price of rice was revised four times between 1990 and 1994 with the result that the 1994 price level was more than double the price in 1989 for rice and nearly doubles the 1989 level for superfine rice.

The central issue price (CIP) fixed by the government in February 1994 remained unaltered up to May 1997 when a dual pricing structure was introduced under the Targeted Public Distribution System (TPDS). In this system, issue prices for families below the poverty line (BPL) were fixed at 50 per cent of the economic cost while issue prices for families above the poverty line (APL) were fixed equal to the economic cost. Since the issue prices for APL families were very close to the market price, there was no incentive for them to buy from the PDS. Consequently, food grain stocks with the government increased considerably. To tackle this problem, the government had to reduce the issue price for APL families by 30 per cent in July 2001. Thus, issue price for APL families was reduced to 70 per cent of economic cost.

State intervention in food grains and FCI

The main agency providing food grains to the PDS is the Food Corporation of India (FCI) set up in 1965. The primary duty of the Corporation is to undertake the purchase, storage, movement, transport, distribution and sale of food grains and other foodstuffs. It ensures on the one hand that the farmers get remunerative prices for their produce and on the other hand the consumers get food grains from the central pool at uniform prices fixed by the Government of India.

The Corporation has also been entrusted with the responsibility of maintaining buffer stocks of food grains on behalf of the government. With the increasing production of wheat and rice in recent years and the increasing demands on the PDS, the role of FCI has also increased as it is the sole repository of food grains meant for the PDS. FCI has the following achievements to its credit:

- Ever since FCI started its procurement operations, the levels of procurement have increased considerably enabling the government to build up adequate buffer stocks on the one hand, and to meet the requirements of the PDS on the other.
- With the increase in the domestic procurement of food grains by the FCI, dependence on imports of food grains has declined considerably enabling the country to save valuable foreign exchange.

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- Since a major part of the FCI's procurement operations is in the nature of price support purchase, the FCI has arrested price declines to unremunerative levels.
- By supplying food grains through the PDS at 'affordable' price, the FCI has helped in reducing the inflationary pressures on the one hand, and has enabled the low-income groups to meet, their food grains requirements on the other hand.
- The FCI has played an important role in building up scientific storage capacity in the country. This has not only enabled the country to build up buffer stocks, it has also helped in reducing losses on storage.

Weaknesses of food security system

The following are the weaknesses of food security system:

- **PDS results in price increases:** Some economists have pointed out that the operations of the PDS have, in fact, resulted in an all-round price increase. This is due to the reason that large procurement of food grains every year by the government actually reduces the net quantities available in the open market. Taking advantage of the low supplies in the market, the traders have indulged in speculation raising the food grains prices in the open market to unusually high levels. This dual market system – the PDS and the open market – operates to the disadvantage of the poor. As noted earlier, the PDS meets only a fraction of the requirements of the poor. Therefore, they are compelled to make purchases in the open market where prices are high. Thus, PDS not only does not meet significant requirements of the poor but also operates against their interest by pushing up the open market prices. People not serviced by the PDS at all like casual labourers on daily wages, migrant workers and those without proper residential addresses are doubly disadvantaged because they are not only not covered by the PDS but also have to pay higher prices for their entire purchases in the open market.
- **Limited benefit to the poor from PDS:** Many empirical studies have shown that the rural poor have not been benefited much from the PDS as their dependence on the open market has been much higher than on the PDS for most of the commodities. In a similar way, urban poor have so depended to a substantial extent on the open market to meet their consumption requirements. In a study on the effectiveness of PDS in reaching the poor, Kirit S. Parikh says, 'The cost effectiveness of reaching the poorest 20 per cent of households through PDS cereals is very small. For every rupee spent less than 22 paise reach the poor in all States, excepting in Goa, Daman and Din where 28 paise reach the poor. This is not to suggest that PDS does not benefit the poor at all, but only to emphasize that this support is provided at high cost.' In this context it would also be pertinent to point out that ration cards are issued only to those households who have proper registered residential addresses. This means that a large number of poor who are homeless and others without

proper residential address (for example, migrant labourers) are automatically left out of the food security system.

- **The question of urban bias:** A number of economists have pointed out that PDS remained limited mostly to urban areas for a considerable period of planning while the coverage of rural areas was very insufficient. In fact, in an article published in 1984, P.S. George estimated that the offtake in the urban areas was about 85 per cent of the total offtake from the public distribution system. However, using data available from the 42nd round of NSS, S. Mahendra Dev and M.H. Suryanarayana indicated that for most of the States, with the exception of West Bengal, the urban bias may not be present. In fact, based on certain criteria they argued that the PDS is rural biased at the all-India level for rice and coarse cereals.
- **Leakages for PDS:** Another criticism of PDS relates to the problem of leakages from the system in the form of losses in the transport and storage and diversion to the open market. The major part of the leakage is due to diversion of food grains to the open market because of the widespread prevalence of corrupt practices. Instead of selling ration at subsidized rates, shopkeepers sell them in the open market at higher prices, pocketing the difference.

  According to a study conducted by Tata Consultancy Services, the all-India diversion makes bogus entries in the ration cards. S. Mahendra Dev gives the example of a village in Dahanu *taluka* in Maharashtra where the tribal people had not even tasted sugar for more than a year. Yet, the ration card of one undernourished tribal family had on entry for June 1995 stated that it had bought 26 kgs of sugar on a single day. The situation is similar in other Dahanu villages. The delivery systems in rural areas are very poor. Even if the fair price shop exists, foodgrains are not available in many places.
- **Regional disparities in PDS benefits:** There are considerable regional disparities in the distribution of PDS benefits. For example, in 1995, the four Southern States of Andhra Pradesh, Karnataka, Karala and Tamil Nadu accounted for almost one-hall (48.7 per cent) of total PDS offtake of food grains in the country while their share in all India population below the poverty line in 1993–1994 was just 18.4 per cent. As against this, the four Northern States of Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh (or BIMARU States) having as much as 47.6 per cent of the all India-population below the poverty line in 1993–1994 accounted for just 10.4 per cent of all India offtake of food grains from PDS in 1995. A more accurate picture of differences across states and regions emerges when you examine the distribution of per capita quantities, i.e., after adjusting for population size. A recent study has shown that in poor states like Bihar, Madhya Pradesh, Uttar Pradesh and Rajasthan with a high incidence of poverty, the per capita monthly purchases of cereals from PDS was lower than half a kg while it was 4.6 kg in Kerala, 3.3 kg in Tamil Nadu and 2.3 kg in Andhra Pradesh, which have a low incidence of malnutrition.

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2.7.2 Agricultural Mechanisation

Strategies and programmes have been directed towards replacement of traditional and inefficient implements by improved ones, enabling the farmers to own tractors, power tillers, harvesters and other machines, availability of custom hire services, support services of human resource development, testing, evaluation and research & development. A huge industrial base for manufacturing of the agricultural machines has also been developed. Introduction of technologically advanced equipment through extension and demonstration besides institutional credit has also been taken up. Equipment for resource conservation have also been adopted by the farmers.

Under various government sponsored schemes like Macro Management of Agriculture, Technology Mission for Oilseeds, Pulses and Maize, Technology Mission on Horticulture, Technology Mission on Cotton and National Food Security Mission, financial assistance is provided to the farmers for the purchase of identified agricultural implements and machines.

Farm Machinery Training & Testing Institutes

Farm Machinery Training & Testing Institutes (FMT&TIs) have been established at Budni (Madhya Pradesh), Hissar (Haryana), Garladinne (Andhra Pradesh) and at Biswanath Chariali (Assam). The institutes have been capacity to train 5600 personnel annually on various aspects of agricultural mechanization. These institutes also undertake testing and performance evaluation of agricultural machines including tractors in accordance with National and International Standards. Since inception 1,10,712 personnel have been trained and about 2584 machines tested by these institutes till 31 March 2009. During 2008-09 these institutes have trained 5894 personnel and tested 163 machines.

Demonstration of newly developed agricultural/horticultural equipment

With the objective of induction of improved/new technology in the agricultural production system, demonstration of newly developed agricultural equipment including horticultural equipment has been undertaken. The component envisages conduct of demonstrations of improved/newly developed agricultural/horticultural equipment at farmers' field to acquaint them about their use and utility for production of different types of crops. 100% grant in aid is given to the implementing agencies for procurement and demonstration of identified equipment. For implementation of schemes, funds are released to States and two organizations (viz. ICAR & SFCI) on the basis of proposals received for assistance under the scheme. During the year 2008-09, 11214 demonstrations of new equipment were conducted benefiting 1,52,364 farmers.

Outsourcing of Training

This is a new component approved from the Tenth Plan in order to train large number of farmers at nearby places and implemented w.e.f. 2004-05. The training programme have been arranged through the identified institutions by each state namely State Agricultural Universities (SAU's), Agricultural Engineering Colleges/ Polytechnics etc. During the year 2008-09, funds amounting to ₹27.20 lakh have been provided for conducting training programmes at the identified institutions.

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Post-Harvest Technology and Management

"Reforming Agricultural Markets & Promoting Post Harvest Technology" has been identified as one of the thrust areas for the Ministry of Agriculture by the Prime Minister's Office. Accordingly, the Department implemented a new scheme on 'Post Harvest Technology and Management during XI Plan period w.e.f. March 2008 with an approved outlay of ₹40.00 crores. Under the scheme the technologies developed by ICAR, CSIR and those identified from within the country and abroad for primary processing, value addition, low cost scientific storage/transport of cereals, pulses, oilseeds, sugarcane, vegetables and fruits and the crop by-product management was given thrust. Under this scheme during the year ₹478.00 lakh were released for distribution of post-harvest equipment through subsidy, organizing demonstration and training on post-harvest technologies.

State Agro Industries Corporations

The Government of India had advised the State Governments in the year 1964, to set up State Agro Industries Corporations (SAICs) in the public sector to act as catalysts in providing access to industrial inputs for farmers, for their use in agriculture. Thus, 17 SAICS were set up in the joint sector with equity participation of the Government of India and respective State Governments, namely Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Uttar Pradesh, Tamil Nadu and West Bengal during 1965 to 1970. Many of the State Governments have increased their equity participation as a result of which the Government of India, at present, is a minority shareholder. So far, the Government of India's shares in SAICs of Gujarat, Karnataka, Uttar Pradesh, Tamil Nadu, Rajasthan and West Bengal have been transferred to the State Governments concerned.

Legislative Framework

The Dangerous Machines (Regulation) Act 1983- External website that opens in a new window, came into force with effect with effect from 14 December 1983. The Act provides for the regulation of trade and commerce and production, supply and use of products of any industry producing dangerous machines with a view to securing the welfare of persons operating any machine and for payment of compensation for death or bodily injury suffered while operating any such machine. Power threshers used for threshing of the agricultural crops have been under the ambit of this Act. The power operated chaff cutter and power operated sugarcane crusher have also been brought under the purview of the Dangerous Machines (Regulation) Act 1983 by way of Notification No. G.S.R. 505(E) and also the Dangerous Machines (Regulation) Rules 1984 have been amended vide Notification No. G.S.R. 506(E) dated 24th July 2007.

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Check Your Progress

12. What does agricultural marketing comprise of?
13. When was the National Agricultural Cooperative Marketing Federation established?

2.8 ANSWERS TO 'CHECK YOUR PROGRESS'

1. Agricultural commodities like tea, coffee, spices and tobacco constitute the main items of export in India.
2. India produces the maximum tea in the world.
3. Land use planning is understood as a systematic and iterative procedure carried out in order to create an enabling environment for sustainable development of land resources which meets people's needs and demands.
4. The Constitution (Seventy-fourth Amendment) Act, 1992 provides for District Planning and Metropolitan Area Planning that consolidates plans of both panchayats and municipalities having regard to spatial (land use) planning.
5. Madhya Pradesh is the second largest Indian state in size.
6. The main crops grown in kharif season are Soybean, Paddy, Maize, Bajara and Tur.
7. The Department of Agriculture and Cooperation under the Ministry of Agriculture is the nodal organization responsible for development of the agriculture sector.
8. India's total geographical area is 328.7 million hectares.
9. Rashtriya Krishi Vikas Yojana (RKVY) was launched to incentivise the States to increase the share of investment in agriculture in their State plans.
10. The term 'Green Revolution' is mainly applicable to a period of Indian agriculture from 1967–1978.
11. Punjab, Haryana and western UP benefitted the most because to Green Revolution in India.
12. Agricultural marketing comprises all operations involved in the movement of farm produce from the producer to ultimate consumer.
13. The National Agricultural Cooperative Marketing Federation was established in 1964.

2.9 SUMMARY

- Even though the share of agriculture in the total national income has been coming down due to the development of the secondary and tertiary sectors the contribution of agriculture remains very significant.

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- A number of agricultural commodities like tea, coffee, spices and tobacco constitute our main items of export.
- Agriculture has been a way of life and continues to be the single most important livelihood of the masses.
- The definition of 'land use planning' by the United Nation's Food and Agriculture Organization (UNFAO) and the United Nations Environment Programme (UNEP) published in 1999 reflects consensus among the international organizations.
- Water resource projects are frequently being planned and implemented in a fragmented manner without giving due consideration to optimum utilization of water resources, environmental sustainability and holistic benefit to the people.
- The mining areas are about 0.17 per cent of the total land of India, the urban areas are about 2.35 per cent and the industrial areas are much less than 1 per cent.
- India comprises seven climate regions in three groups: (a) tropical wet-humid group; (b) dry climate group; (c) sub-tropical humid climate group.
- There is a need for a policy framework to be formulated at the national level incorporating concerns of various sectors and stakeholders so as to ensure optimal utilization of land resource through appropriate land use planning and management.
- Madhya Pradesh is the second largest Indian State in size with an area of 308,000 sq. km.
- Primarily a food grain growing state with around 62 percent of the gross cropped area (GCA) in Madhya Pradesh is dedicated exclusively to food grain and 32 per cent to oil seeds in TE 2014-2015.
- Even though the share of agriculture in the total national income has been coming down due to the development of the secondary and tertiary sectors the contribution of agriculture remains very significant.
- The Department of Agriculture and Cooperation under the Ministry of Agriculture is the nodal organization responsible for development of the agriculture sector.
- The Green Revolution was a programme launched by the Government of India for agricultural modernization. It was largely funded by international agencies and focused on providing high-yielding variety (HYV) or hybrid seeds along with pesticides, fertilizers and other inputs to farmers.
- The term 'Green Revolution' is mainly applicable to a period of Indian agriculture from 1967–1978.
- Agricultural marketing is a central parameter in the context of agricultural growth. Timely and remunerative sale of agricultural products motivates the farmers to make strong efforts in all areas of farming.

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- Strategies and programmes have been directed towards replacement of traditional and inefficient implements by improved ones, enabling the farmers to own tractors, power tillers, harvesters and other machines, availability of custom hire services, support services of human resource development, testing, evaluation and research & development.

2.10 KEY TERMS

- **Agricultural marketing:** Agricultural marketing covers the services involved in moving an agricultural product from the farm to the consumer. These services involve the planning, organizing, directing and handling of agricultural produce in such a way as to satisfy farmers, intermediaries and consumers.
- **Urbanization**: Urbanization refers to the population shift from rural areas to urban areas, the gradual increase in the proportion of people living in urban areas, and the ways in which each society adapts to this change
- **Industrialization**: Industrialization is the period of social and economic change that transforms a human group from an agrarian society into an industrial society, involving the extensive re-organization of an economy for the purpose of manufacturing.
- **Biodiversity**: Biodiversity is the variety and variability of life on Earth. Biodiversity is typically a measure of variation at the genetic, species, and ecosystem level.

2.11 SELF-ASSESSMENT QUESTIONS AND EXERCISES

Short-Answer Questions

1. Write a short note on the nature and importance of agriculture.
2. What is the condition of land use planning in India?
3. How has the creation of Special Economic Zones (SEZs) helped the agricultural sector?
4. What is the nine-fold classification of land use?
5. What are the five distinctive crop zones of Madhya Pradesh?
6. Write a short note on National Food Security Mission.

Long-Answer Questions

1. Discuss the major issues faced in the land use planning and policy in India.
2. How has the cropping patterns changed in Madhya Pradesh over the years? Explain.

3. What are the initiatives taken by the government of India in order to reverse the downward trend in agricultural production? Discuss.
4. Discuss Green Revolution. What are the factors responsible for adopting new programmes in agriculture?
5. Explain the meaning and importance of agricultural marketing.
6. What are the merits and demerits of cooperative societies? Discuss.

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UNIT 3 INDUSTRIAL POLICIES OF INDIA

Structure

3.0 INTRODUCTION

At the time of Independence, the Indian economy was facing severe problems of illiteracy, poverty, low per capita income, industrial backwardness, and unemployment. After India attained its Independence in 1947, a sincere effort was made to begin an era of industrial development. The government adopted rules and regulations for the various industries. With time, various industrial policies came into being which shaped the outlook of the nation.

This unit discusses the various industrial policies and the role of public sector in industrialisation. It also discusses the concept of small scale industries and cottage industries.

3.1 OBJECTIVES

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

- Discuss the industrial policy of 1956 and 1991
- Understand the role of public sector in industrialization
- Describe the highlights of industrial policy of Madhya Pradesh
- Learn the concept of small-scale industries and cottage industries
- Understant the concept of start-up India and Make in India

3.2 INDUSTRIAL POLICY OF 1956 AND 1991 AND CHANGES THEREIN

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The 1956 industrial policy had six objectives: (i) to accelerate economic growth and industrial development of the country, (ii) to expand the public sector, (iii) to prevent the growth of monopolies and the concentration of economic powers in the hands of a few people, (iv) to develop a large cooperative sector, (v) to develop heavy and machine-made industries, and (vi) to reduce disparities in wealth and income.

1. The industrial policy of 1956 divided industries into three categories having regard to the part which the State would have to play in each of them. It should be remembered that this demarcation was not rigid and it was always open to the State to undertake any types of industrial production.

   The First Category included industries, the future development which would be the exclusive responsibility to the State. There were 17 industries in this category. All the new units in these industries would be set up only by the state.

   The Second Category consisted of industries which would be progressively State-owned and in which the State would generally take initiative in establishing new units but in which private enterprise would also be expected to supplement the effort of the State. This category comprised 12 industries which were less important than those included in the first category.

   The Third Category included all the remaining industries and their future development would, in general, be left to the initiative and enterprise of the private sector. Even in this category it would be open to the State to start any new industry. Thus no field was safe from Government encroachment. It would be the policy of the State to facilitate and encourage the development of these industries in the private sector in accordance with the programme formulated in successive Five-Year Plans. In special cases, the State might grant financial assistance to the private sector.

   Industrial undertakings in the private sector have necessarily to fit into the framework of the social and economic policy of the State and will be subject to control and regulation in terms of Industries (Development and Regulation) Act and other relevant legislation.

2. The industrial policy statement stressed the role of cottage and village and small scale industries in the development of the national economy for they provide immediate large-scale employment, offer a method of ensuring a more equitable distribution of the national income and facilitate an effective mobilisation of capital and skill which might otherwise remain unutilised. Moreover, the establishment of small industries all over the country will secure a balanced development of the economy and will avoid problems connected with unplanned urbanisation.

3. It has been reiterated that the maintenance of industrial peace is one of the prime requisites of industrial progress. In a socialist democracy labour is a partner in the common task of development and should participate in it with enthusiasm. There should be joint consultation and workers should be associated progressively in management. Enterprises in the public sector have to set an example in this respect.
4. In order that industrialisation may benefit the country as a whole, it is important that disparities in levels of industrial development between different regions be progressively narrowed down, and for this purpose the State should provide the required facilities to those areas which are lagging behind industrially or where there is greater need for providing opportunities for employment : only by securing a balanced and co-ordinated development of the industrial and the agricultural economy in each region, can the entire economy attain higher standards of living.
5. The programme of industrial development as envisaged in our Five-Year Plans will make large demands on the country's resources of technical and managerial personnel and to meet the needs, proper managerial and technical cadres in the public services should be established.

The most important difference between the 1948 and the 1956 policy statements is with regard to the policy of nationalisation. In the first policy, it was laid down that industries in the second category would be permitted to operate for 10 years, at the end of which the Government would decide whether to nationalise them or not. This provision discouraged private enterprise and created uncertainty in the industrial field. The 1956 policy statement removed the threat of nationalisation from the minds of private entrepreneurs operating in the predominantly public sector. Thus private enterprise was given a new opportunity to justify its existence in a socialist democracy.

Industrial Policy of July 1980: While sticking to the spirit of 1956 Industrial Policy Resolution, the Congress Government announced on July 23, 1980 the new industrial policy which included major relaxations and concessions benefiting the small, medium as well as large-scale sector with the triple objects of modernisation, expansion and spread to backward areas. The thrust of the concessions is in doubling the investment limit of tiny, small and ancillary sectors, regularisation of the excess capacity and permitting automatic expansion facilities for large units in the priority sector and setting up of several nucleus industrial centres in industrially backward areas.

The following are the highlights of the New Industrial Policy:

(*i*) In order to promote the development of small-scale industries and ensure their rapid growth, the Government has decided to increase the limit of investment in case of tiny units from ₹1 lakh to ₹2 lakh. In the case of small-scale units the limit has been raised from ₹10 lakh to ₹20 lakh and from 15 lakh to 25 lakh in the case of ancillary units.

In March 1985 investment limit for small-scale industries was raised further from ₹20 lakh to ₹35 lakh. For ancillary units the investment limit is ₹45 lakh.

(*ii*) The Government decided to pursue a goal of vibrant, self-reliant and modern economy in which all sectors had a positive role to play. Therefore the Government recognised that it was desirable to allow private sector undertakings to grow in consonance with targets and objectives of national plans and policies but would not permit growth of monopolistic tendencies or concentration of economic powers and wealth in a few hands.

(*iii*) The Government has decided to revive the efficiency of public sector undertakings. Industrial undertakings in this sector will be closely examined on a unit-by-unit basis and corrective action will be taken in terms of a time bound programme wherever necessary.

(*iv*) As regards automatic growth, the Government feels that no avoidable restrictions should be placed on the fullest utilisation of the existing industrial capacities. In 1975 the Government had permitted the facility for automatic expansion in respect of only 15 industries. The extent of increased capacity permitted in these industries was limited to 5 per cent per annum or 25 per cent in a Five-Year Plan period and could be undertaken in one or more stages. The Government announced that this facility would be extended to other industries also.

(v) The "district industrial centre" idea which was introduced by the Janata Government has not received full support from the 1980 Industrial Policy Statement. On the district industrial centre programme, the 1980 policy points out that the scheme has not produced benefits commensurate with the expenditure incurred. The Government therefore, decided to initiate more effective schemes.

(vi) In the context of development of backward areas, the New Policy Statement has mentioned nucleus plants which should radiate industrial impulses all round. The so-called concept of nucleus plants when implemented, is expected to concentrate mainly on assembling the products of ancillary units falling within their orbit.

(*vii*) The 1980 policy refers to considerable simplification and streamlining of licensing procedures and concedes that there is scope for further improvement in reducing the time taken for disposal of applications for the creation of new capacities, proposal for substantial expansion and production of new items. It is proposed to speed up the process of examination and decision-making in the sphere of industrial licensing.

(*viii*) The Government would endeavour to ensure that the process of modernisation percolated down to small units and the villages. For this purpose, the incentives available to the large-scale sector might also be made available to the decentralised sector.

(*ix*) Industrial processes and technologies which would aim at optimal utilisation of energy or the exploitation of alternative sources of energy would be given special assistance, including finance on concessional terms. The Industrial Policy of July 1980 hits hard at the Janata Party's policy statement of December 1977 and its record in promoting industrial growth. But on close examination it will be found that the 1980 Industrial Policy has made

NOTES

no serious departure from the earlier policies. For instance, though the 1980 policy deplores the *artificial divisions* between the small and large-scale sectors promoted by the Janata Government, it also wants to continue the policy of reservation of items for the small-scale sector. It has also retained the distinction between the tiny and the small-scale sectors though the investment limits for both have been doubled. Moreover, the *nucleus plants* idea is good but it will be difficult to achieve. As we get it in the 1980 policy statement, it appears to be a just another new appealing word.

The so-called excess capacities and excess production above licensed limits are expected to be regularised for more industrial units. This is encouraging and boosts the industrial growth. Induction of new technology is to be encouraged by allowing additional capacities to be created, if necessary, in more cases. This is certainly a step in the right direction.

Elements in the Industrial Policy of Rajiv Gandhi's Government: We give below the elements of Rajiv Gandhi's Government's Liberalised Industrial Policy, as enunciated from time to time by ex-Prime Minister late Rajiv Gandhi himself or his senior cabinet ex-colleagues:

(*i*) Upward revision of asset limit of MRTP companies from ₹20 crores to ₹100 crores. In the Union Budget for 1985-86, the Finance Minister announced a steep upward revision in the threshold limit of MRTP Companies from ₹20 crores to ₹100 crores.

(*ii*) Automatic Expansion Permission is currently being granted for expansion of existing industrial units up to 1/3rd of their capacity in case the industries have already utilised 93 per cent of their installed capacity.

(*iii*) Upward revision in delicensing of investments under the Industries (Development and Regulation) Act, 1951 from ₹3 crores to ₹5 crores subject to formal requirement of registration of such units. In April 1983 the exemption limit for industrial licensing was raised from ₹3 crores to ₹5 crores.

(*iv*) Complete de-licensing of 25 industries in March 1985.

(*v*) Redefinition of investment criteria of small-scale and ancillary industries. The investment limit of ₹20 lakh for small-scale industries has been raised to ₹35 lakh and that of ancillary units has been enhanced from ₹25 lakh to 45 lakh. These limits have been further raised for small-scale industries to ₹60 lakh and for ancillary units to ₹75 lakh.

(*vi*) Industries exempt from Section 21 and 22 of MRTP Act for MRTP/FERA companies for backward areas. The Government of India earlier delicensed broad categories of industries along with 82 bulk drugs for non-MRTP and non-FERA companies subject to production of items reserved for the small-scale sector and certain locational considerations. Later, it was decided to extend the scheme of delicensing also to MRTP and FERA companies in respect to 22 out of 27 industries exempted under section 22A of the MRTP Act provided such undertaking apply for locating these units in centrally declared backward areas.

(*vii*) Setting up of industries by MRTP companies in no-industry districts and other backward districts: According to the earlier policy, MRTP and FERA companies were permitted to set up industrial units in areas of high technology. Their entry into other fields has been subject to export obligation of 60 per cent with a view to industrialise backward regions within the country. The level of export obligation was reduced to 50 per cent for categories B and C districts and 30 per cent for category A districts in 1983. In order to give an impetus to the industrialisation of backward areas it has now been decided to reduce the level of export obligation to only 25 per cent for category B and C districts and to totally dispense with export obligations in respect of category A backward districts.

(*viii*) Revision of foreign exchange limits for imports of new materials and components for the purpose of exemption from licensing: Industrial undertakings with investment below ₹5 crores are not required to obtain any industrial license under the Industries (Development and Regulation) Act but one of the conditions of the exemption from licensing was that the foreign exchange requirement for import of raw materials and components in such cases should not exceed 15 per cent of the ex-factory value of industrial production or ₹40 lakh, whichever was less. If the import requirement exceeded this limit, even units with investments below ₹5 crores would require an industrial license. On account of rise in cost of raw materials it has now been decided to raise the limit to ₹75 lakh subject to a ceiling of 15 per cent of the cost of ex-factory value of industrial production. This limit would not however, apply in case of industries in respect of which specific phased manufacturing programmes have been approved by the Government.

New Industrial Policy, 1991

Jawaharlal Nehru laid the foundations of modern India. The aims and objectives set out for the nation by Nehru on the eve of independence were rapid agricultural and industrial development of the country, rapid expansion of opportunities for gainful employment, progressive reduction of social and economic disparities, removal of poverty and attainment of self-reliance. These remain as valid as at the time Nehru set them before the nation. Any industrial policy must contribute to the realisation of these aims and objectives. Though the present statement of industrial policy is inspired by these concerns, actually it bids farewell to Nehruvian socialism and brings the public sector at par with the private sector in several areas. Hence in core areas like steel, power and several other industries, the public sector will have to climb down from the commanding heights to street level commercialism where it has to compete with private enterprise.

In 1948, the Government adopted the industrial policy resolution which emphasised 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 revised and adopted in 1956. To meet new challenges from time to time, it was modified through statements in 1973, 1977 and 1980.

The 1956 policy resolution had as its objective the achievement of a socialist pattern of society. In 1956, capital was scarce and the base of entrepreneurship not strong enough. Hence, the 1956 industrial policy resolution gave primacy to the role of the state to assume a predominant and direct responsibility for industrial development.

The industrial policy statement of 1973 identified high priority industries where investment from large industrial houses and foreign companies would be permitted.

The industrial policy statement of 1977 laid emphasis on decentralisation and on the role of small-scale, tiny and cottage industries.

The industrial policy statement of 1980 focussed attention on the need for promoting competition in the domestic market, technological upgradation and modernisation. The policy laid the foundation for an increasingly competitive export base and for ensuring foreign investment in high technology areas. These policies created a climate for rapid industrial growth in the country. Basic industries had been established. New growth centres of industrial activity had emerged as had a new generation of entrepreneurs. A number of policy and procedural changes was introduced in 1985 and 1986 under the leadership of late Prime Minister Rajiv Gandhi, which aimed at increasing productivity, reducing costs and improving quality. The public sector was freed from a number of constraints and given a large measure of autonomy.

In the 1950s and 1960s the principal instrument for controlling the commanding heights of the economy was investment in the capital of key industries. Today the state has other instruments of intervention, particularly fiscal and monetary instruments. The state also commands the bulk of the nation's savings. Bank and financial institutions are under state control. Where state intervention is necessary, these instruments will prove more effective.

The Government will fully protect the interests of labour, enhance their welfare and equip them to deal with the inevitability of technological change. Labour will be made an equal partner in progress and prosperity. Workers' participation in management will be promoted.

The Government will continue to visualise new horizons. The major objectives of the new industrial policy will be to build on the gains already made, correct the distortions that may have crept in, maintain a sustained growth in productivity and gainful employment and attain international competitiveness. The government's policy will be in continuity with change.

Industrial Licensing Policy

With the above objectives in view, the government will take a series of initiatives in respect of the policies relating to the following areas:

(i) Industrial Licensing.

(ii) Foreign Investment and Technology Agreements.

(iii) Public Sector Policy.

(iv) MRTP Act.

NOTES

A package for the small and tiny sectors of industry was announced separately.

1. **Industrial Licensing Policy:** Industrial licensing will henceforth be abolished for all except a few industries (18 sectors) which need regulation because of security and strategic concerns, social reasons, chemical hazards, environmental protection and curbing elitist consumption. Among these industries are cars, sugar, cigarettes, colour TV and VCRs, *white goods* like air-conditioners, refrigerators and electronic washing machines.

   All registration scheme including of DGTD are to be abolished, entrepreneurs only have to file an information memorandum on new projects and expansions.

   Eight areas where strategic and security concerns predominate continue to be reserved for public sector.

   The exemption from licensing will be particularly helpful to the many dynamic small and medium entrepreneurs who have unnecessarily been hampered by the licensing system. As a whole, the Indian economy will benefit by becoming more competitive, more efficient and modern and will take its rightful place in the world of industrial progress.

   No industrial approvals will be required for putting up plants in locations other than cities with a population of more than one million. Where the population is more than one million, industries (with the exception of electronics, computer software and printing) will have to set up units outside a 25-km radius, except in prior designated industrial areas.

   As per the industrial policy statement, the mandatory convertibility clause will no longer be applicable for term loans from financial institutions for new projects by large houses.

   With the sweeping liberalisation measures, the existing procedures have been streamlined accordingly. All existing registration schemes have been abolished.

2. **Foreign Investment and Technology Agreements:** While freeing Indian industry from official controls, opportunities for promoting investments in India should also be fully exploited. Foreign investment would bring attendant 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. The government will therefore, welcome foreign investment, which is in the interest of the country's industrial development.

   In order to invite foreign investment in high priority industries requiring large investment and advanced technology, it has been decided to provide approval for direct foreign investment up to 51 per cent foreign equity in 34 groups of high priority industries. These include commercial vehicles and two-wheelers, inorganic fertilizers, chemicals, man-made fibres, drugs and pharmaceuticals, paper, tyres, portland cement, hotels, many food-processing industries, soya products and industrial and agricultural machinery.

There shall be no bottlenecks of any kind in this process. This change will go a long way in making Indian policy on foreign investment transparent. Such a framework will make it attractive for companies abroad to invest in India.

Foreign equity up to 51 per cent in trading companies primarily engaged in export; these companies to be treated on par with domestic trading and export houses as per the import-export policy.

Special Empowered Board to be set up to negotiate with large international firms for direct investment in select areas; aim is to attract substantial investment that would provide access to high technology and world markets.

With a view to injecting the desired level of technological dynamism in Indian industry, the Government will provide automatic approval for technology agreements related to high priority industries within specified areas, subject to certain conditions. Similar facilities will be available for other industries as well if such agreements do not require the expenditure of free foreign exchange. Indian companies will be free to negotiate the terms of technology transfer with their foreign counterparts according to their own commercial judgement.

3. **Public Sector Policy:** The public sector has been central to our philosophy of development. Public ownership and control in critical sectors of the economy has played an important role in preventing the concentration of economic power, reducing regional disparities and ensuring that planned development serves the common good.

   The industrial policy resolution of 1956 gave the public sector a strategic role in the economy. Massive investments have been made over the past five decades to build public sector which has a commanding role in the economy. Recently a number of problems have begun to manifest themselves in many of the public enterprises. In addition, public enterprises have shown a very low rate of return on the capital invested. Many of the public enterprises have become a burden rather than being an asset to the Government. The original concept of the public sector has also undergone considerable dilution. The most striking example is the takeover of sick units from the private sector. This category of public sector units accounts for almost one-third of the total losses of central public enterprises.

   It is time that the Government adopted a new approach to public enterprises. The priority areas for growth of public enterprises in the future will be as follows:

   (a) Essential infrastructure goods and services;
   (b) Exploration and exploitation of oil and mineral resources;
   (c) Technology development and building of manufacturing capabilities in areas which are crucial in the long-term development of the economy and where private sector investment is inadequate;
   (d) Manufacture of products where strategic considerations predominate such as defence equipment. At the same time the public sector will not be barred from entering areas not specifically reserved for it.

NOTES

The Government will strengthen those public enterprises which fall in the reserved areas of operation or are generating good or reasonable profits. Such enterprises will be provided a much greater degree of management autonomy through the system of memorandum of understanding. Competition will be induced in these areas by inviting private sector participation. In the case of selected enterprises, part of government holdings in the equity share capital of these enterprises will be disinvested in order to provide further market discipline to the performance of public enterprises. There is a large number of chronically sick public enterprises incurring heavy losses and serving little public purpose. These need to be attended to.

New Public Sector Policy: The low rate of return on capital invested has reduced the ability of the public enterprise to regenerate themselves in terms of new investments as well as in new technology development. This has resulted in many of the public enterprises becoming a burden rather than an asset to the Government. The new Industrial Policy of 1991 has redefined the role of the public sector. Public sector in the future will be restricted to essential infrastructure goods and services, exploration of oil and mineral resources and manufacture of products where strategic considerations predominate such as defence equipment.

The number of industries reserved for the public sector has been reduced to 8. The scrapping of Schedule B, which contained a list of 12 industries where public sector was to play a dominant role is also an important policy change.

The Government is thinking of throwing open to the private sector most of the industries reserved for the public sector. In other words, monopoly in any sector has to be abolished.

4. **MRTP Act:** The principle objectives sought to be achieved through the MRTP Act are as follows:
   (*i*) prevention of concentration of economic power to the common detriment
   (*ii*) control of monopolies,
   (*iii*) prohibition of monopolistic and restrictive and unfair trade practices.

With the growing complexity of industrial structure and the need for achieving economies of scale for ensuring higher productivity and competitive advantages in the international market, the interference of the government through the MRTP Act in investment decision of large companies has become deleterious in its effects on Indian industrial growth. The pre-entry scrutiny of investment decisions by so-called MRTP Companies will no longer be required. The provisions relating to merger, amalgamation, and takeover will also be repealed. Similarly, the provisions regarding restrictions on acquisition of and transfer of shares will be appropriately incorporated in the Companies Act.

Thus, the Government have decided to undertake a series of measures to unshackle the Indian industrial economy from the cobwebs of unnecessary bureaucratic control.

Evaluation: Captains of industry and apex trade bodies have welcomed the new industrial policy, particularly the decisions to do away with licensing for most industries, liberalisation of foreign investment and lifting of the threshold limit for MRTP. The new industrial policy is a major step in ushering the country into a new era of development and progress. The new policy will change the structure of Indian industry. It is directed towards making Indian industry internationally competitive. According to the FICCI President, many retrograde restrictions have been either removed or amended and conditions created for a market friendly system, which will enable India to join the international mainstream on the basis of efficiency and competitiveness. The President of the Associated Chamber of Commerce and Industry described the policy as a landmark in the opening up of the Indian Economy. He complemented the Government for replacing the command and controlled economy which has been discarded all over the world with competitive and market economy. Market is more important than Marx.

The new policy is pragmatic, bold, innovative, and growth-oriented and the onus now lies with the industry to take advantages of these changes and rise to the occasion before demanding further liberalisation.

On the other hand, the new industrial policy come in for some sharp criticism by opposition leaders all over the country. The general reaction was that, the policy was a sell out to the IMF and the World Bank and hit the common man. Former Prime Minister Chandrashekhar assailed the new policy and described it as a total drift from the Gandhian path. He feared the policy would generate more unemployment. Former Finance Minister Madhu Dandavate said that, by abolishing the limits on MRTP companies, the Government had put the small-scale sector in a tight corner. This would seriously affect employment potential and poverty alleviation.

Check Your Progress

1. How many objectives did the 1956 industry policy have?
2. What are the principle objectives sought to be achieved through MRTP Act?

3.3 ROLE OF PUBLIC SECTOR IN INDUSTRIALIZATION

The public sector or public enterprises include all governmental activities including public industrial or commercial enterprises. Public enterprise occupies a strategic and crucial position in the Indian economy. It is no exaggeration to say that the economy would sink or swim depending upon the efficiency with which these enterprises operate.

Concept: The modern Indian economy is the creation of the Congress party and its leaders, Mahatma Gandhi and Nehru, who referred to India as a ‘Socialist’ economy. Socialism is largely a misnomer in the case of India, except for Government ownership in industry and commerce. India is still primarily an agricultural country and the distribution of income depends mainly on the distribution of agricultural property. Although there have been some attempts to distribute land to the peasants, land remains unequally distributed although there is evidence that the range of income inequality has been reduced. The tax system continues to be regressive, direct taxes are rarely levied on land and high urban income taxes are marked by evasion. The pre-tax income distribution figures sum up the failure to establish a more equitable distribution of income. In 1960, the bottom 10 per cent of families accounted for less than one per cent of all income, while the top 10 per cent accounted for over one-third. This income distribution is less equitable than in industrialised capitalist countries. Rather than seeking to achieve 'Socialist' objectives through income redistribution, the architects of modern Indian economy emphasised State ownership in industry. The feeling was that socialism could be achieved through State control of industry which would serve as a surrogate for social change.

Public enterprises are expected to be the principle agents for rapid economic and social transformation by developing infrastructure and the core sector and by closing the gaps in the industrial structure. Its dominant position in the financial field is intended to control and guide the private sector, wherever necessary. Lastly, the economic growth through public enterprise will ensure social justice.

In developing countries, public enterprises are largely a necessity and not a matter of choice. In India, though the Congress government was clearly committed to expanding the public sector, it did not go into areas where private enterprise was operating. Nationalisation of the existing enterprises has been generally resorted to where the public interest was involved or where it was imperative to put the industry on a sound footing and regulation and control were not found sufficiently effective. The vast majority of public enterprises is in areas which were hitherto untouched or unexplored by the private sector.

In the Industrial Policy Statement of 1956, it was emphasised that public enterprise was designed to control the 'commanding heights' of the economy. But in recent years the trends towards increasing liberalisation are very much in evidence in India and one gets the impression that the private sector is designed to play an important role in the economy in the coming era.

The public sector in the industrial field has expanded rapidly since Independence. In 1951 there were only 5 non-departmental public undertakings with an investment of ₹29 crore. On March 31, 2004, the total capital employed in public undertakings amounted to ₹5,86,140 crore.

The public enterprises comprise:

(*i*) Public utilities, e.g. the Railways, Posts and Telegraphs and Irrigation projects.

(*ii*) Departmental undertakings of the Government, Central as well as State, e.g. Posts and Telegraphs, Integral Coach Factory.

(*iii*) Other industrial undertakings which derive their finance from the Government of India in the form of equity capital and loan, e.g. Durgapur Steel Plant, Hindustan Fertilizers.

Public sector units generally are of four kinds:

(*i*) National monopolies like the railways that have downward sloping unit cost curves. These are hard to assess, being monopolies.

(*ii*) Entrepreneurial ventures that, at the start and for many years thereafter, are monopolies or near monopolies. These are generally large units with sophisticated technologies and long gestation periods that produce basic products. Many of the Indian public sector manufacturing units are of this type.

(*iii*) Sick units in the private sector that have been taken over to maintain employment etc.

(*iv*) Units taken over or formed to acquire the 'commanding heights' or for other ideological reasons.

The State Trading Corporation is a case in point.

Evolution of the public sector

The entry of the public sector in a big way in the economic sphere is a post-Independence development. Prior to 1947, public sector investment was limited to the railways, the post and telegraphs department, the ordinance factories and a few state-managed factories like the quinine factories, salt factories, etc. It was the Industrial Policy Resolution of the Government of India in 1948 that brought the public sector into the limelight. It declares that a dynamic national policy must be directed to a continuous increase in production by all possible means, side-by-side with measures to secure its equitable distribution. The problem of State participation in industry and the conditions in which private enterprise should be allowed to operate must be judged in this context. Since then the expansion of the public sector has been very rapid.

The idea that in the economic development of the country the State enterprises would play a predominant role took root with the adoption of a socialist pattern of society in the second Plan.

The growth of public enterprises in India has taken place in two ways: (*a*) by nationalising existing enterprises and (*b*) by starting new enterprises. The State Bank of India, LIC, the Air India, nationalisation of 20 banks, etc. are included in the first category, while the Hindustan Steel Ltd., the Fertilizer Corporation of India, etc. fall in the second category.

The enormous growth of public sector investments has taken place against a political and ideological background which is peculiar to Indian political development.

Philosophy: The Indian National Congress had traditionally expressed its socio-economic aspirations in radical terms. The 1929 Lahore Resolution had declared that in order to remove poverty and misery of the Indian people and to ameliorate the conditions of the masses, it was essential to make revolutionary changes in the present economic and social structures of society and to remove gross inequalities. The subsequent Karachi Resolution declared that the State shall own or control key industries and services, mineral resources, railways, waterways, shipping and other means of public transport.

Objectives: The objectives of establishing new enterprises and reasons for nationalising some existing ones are varied and often different from case to case and from time to time. Perhaps the only generalisation possible in this regard is that public enterprise for us is more a matter of necessity than of choice. It is not so much the ideology as the compulsion of the situation that has led to the growth of public enterprise in India.

A brief statement about the need and role of public enterprise in India is contained in the statement of former Prime Minister Indira Gandhi that we advocate a public sector for three reasons: to gain control of the commanding heights of the economy: to promote critical development in terms of social gain or strategic value rather than primarily on considerations of profit; and to provide commercial surpluses with which to finance further economic development.

Rationale for the Public Sector

1. **Socialist Pattern of Society:** The public sector was meant to socialize the means of mass production and benefit the masses, as is typically the case in a socialistic pattern of society. The commanding heights of the economy—the core sector comprising investment, production, distribution and consumption—were State owned, so as to promote national development as opposed to considerations of private profit. In such a situation, the so-called public sector needs to expand rapidly, cover areas where the private sector is unwilling or unable to participate, and play a dominant role in shaping the economy. Some of these areas are power, communications, mass transportation, information and broadcasting, mines and defence production. Initially, the public sector took the lead in developing basic and capital goods industries, laying the foundations for national growth unhindered by narrow considerations of profit as would arguably be seen in a *laissez faire* economy dominated by private enterprise, where motives of personal profit would presumably supersede national priorities. In time, however, some of these monolithic establishments exhausted their early dynamism and metamorphosed into complacent, inefficient, cash-strapped, over-staffed, over-unionized islands of mediocrity that generated aught but huge losses—dinosaurs that had run out of time and relevance.
2. **Socio-economic Objectives:** Reduction of inequalities of wealth and income is the most important socio-economic objective, going hand in hand with the need to eliminate poverty and establish an egalitarian society by redistributing wealth and earning potential equitably. Another important objective of a socialistic system is to help the underprivileged, realise their dormant potential by liberating them from economic serfdom and to give them all an opportunity to attain social justice. Although rarely declared in so many words, the giant public sector organizations were also meant to serve this purpose by providing upliftment to these neglected sectors, by means of reserving a certain percentage of jobs for weaker sections of society including the physically handicapped. Nationalized banks rendered yeoman service by extending concessional loans under the 'Differential Rates of Interest' scheme, that allowed cheap finance to reach District Consultative

Committee sponsored beneficiaries drawn from such sections of the local populace—something a purely profit-driven banking system would never dream of undertaking.

3. **Balanced Regional Development:** One of the major goals of planning is to try and correct regional disparities by spreading the benefits of economic development as evenly as possible across the country. It is vital for humane as well as for security reasons to ensure that the fruits of prosperity percolate throughout the nation, for civil unrest is usually born of discontent with a system of wealth distribution that serves but to defeat the very purpose of adopting a socialistic type of governance. This is particularly true of the sensitive north and north-eastern States, many of which are economically under-developed and hence vulnerable to ideologies incompatible with our peaceful, non-violent, democratic system of governance run on socialist principles. Industrial development of these areas is a top priority; Bhilai, Rourkela and Durgapur are well known examples, but more such success stories are needed, and quickly.
4. **Need for Rapid Economic Development:** The need of the hour is rapid economic development. The private sector has neither the desire nor the resources to undertake the massive programme of industrialisation. Hence dependence on the private sector will only slow down economic development. Expansion of public enterprise will speed up the rate of economic growth.
5. **Pattern of Resource Allocation:** The main reason for the expansion of the public sector lies in the pattern of resource allocation decided upon under the plans. In the first Plan, the major emphasis was on agriculture but in the second Plan the emphasis was shifted to basic and capital goods industries. During the First Plan period, the private sector was dominant in the field of industrial activities. But with changed emphasis it was inevitable that the public sector must grow not only absolutely but also relatively to the private sector.
6. **Building Infrastructure:** Infrastructure provides certain basic facilities for rapid economic growth. In the economic infrastructure, there are facilities like power, irrigation, transport and communication, banking, training, etc. Social infrastructure includes education, health, sanitation, drinking water facilities, etc. The development of infrastructure is not possible through efforts of private individuals since its benefits go to socity as a whole and not to individuals. It is therefore mainly the responsibility of the State. The infrastructure has accounted for 95.1 per cent of the public outlays in the First Plan and nearly 75 per cent in the subsequent plans.

Recent Policy Towards Public Sector and Disinvestment Policy

The major aim of economic reforms is to improve the public sector so that the rate of return improves. To remedy the situation, it was necessary that overstaffing of the public sector undertakings be reduced. The government has already taken steps in this direction by its voluntary retirement scheme. It set up the National Renewal Fund to provide compensation for voluntary retirement and also arranged for retraining and redeployment of workers. As a result of the VRS, the employee strength of PSUs has been reduced by 8 per cent.

Another step taken by the government was disinvestment in PSUs. The government has been offering equity of 31 selected public sector enterprises, varying from 5 per cent to 20 per cent to Mutual Funds and Financial Institutions. This is only a token privatisation and the government was able to raise ₹9793 crore during the four-year period (1991–92 to 1994–95).

Critics describe disinvestment as deficit privatisation because the proceeds of disinvestment are being used to reduce the budget deficit. The Common Minimum Programme of the NDF Government stipulated that the proceeds of disinvestment would be used in two vital areas—health and education.

On the whole, the reforms of PSUs have not gathered as much momentum as expected. Disinvestment has been piecemeal, and the funds so raised are being used to reduce budget deficits rather than strengthen the PSUs. In addition, labour problems, political and bureaucratic interference have not been effectively used. Since it is not possible to privatise a large component of the public sector, it would be advisable to reform it.

Large dose of Foreign Capital to help Indian Economy: The reforms process, especially its emphasis on globalisation, was intended to accelerate the growth process by attracting a larger dose of foreign capital. However, the efforts of the state met with only partial success. The data reveal that during 1991–92 to 1995–96, total investment flows of the order of ₹1,174 billion were made, out of which portfolio investment was of the order of ₹8.05 billion and direct foreign investment accounted for barely $ 3.69 billion.

Critics point out that mainly 39 per cent of foreign investment is in the non-priority sector. The entry of multinationals in consumer goods only displaces Indian labour and capital employed in the production of these commodities.

Reform Process and the Foreign Trade Scenario: The reform process has led to growth of exports but simultaneously, it has also led to a larger growth of imports. As a result, the trade gap has not been reduced.

Check Your Progress

3. What does the Industrial Policy Resolution of the Government of India 1948 declare?
4. What is the major aim of economic reforms?

3.4 INDUSTRIAL POLICY OF MADHYA PRADESH

Madhya Pradesh government announced its long awaited industry policy in 2010. It makes it mandatory for upcoming industries to reserve 50 per cent direct job to locals. It took almost two years for the state machinery to frame rules and regulations that make the policy an overhauled version over the existing one.

"The policy offers incentives, grants and sops to the new investment provided they offer jobs to local people," said Industry Minister Kailash Vijayvergiya. Some of the provisions of the policy are unlikely to fetch any result as they seem hypothetical. "Those who will make investment of less than ₹ 25 crore but provide direct jobs to 1000 locals will be considered as mega investment and will be offered sops and concessions accordingly," the minister said. At present an investment is considered under mega category if it is ₹ 25 crore or more.

A special zone for labourers was also be created to avoid creation of slums in upcoming industrial areas, 50 per cent concession on diversion of land for those industries that will privately acquire land. A special package for non-resident Indians was also planned for foreign direct investment provided they ensure ₹ 25 crore or more investment.

State government made provisions to abolish dual taxation system (taxes levied by local industrial department arms and local administrative bodies) but this provision requires constitutional revision as 74th amendment does not grant powers for state to strip local bodies' power to levy taxes.

The new policy also covers the destitute and handicapped to available benefits like interest grant (maximum ₹ 25 lakh) on investment.

3.5 CONCEPT OF SMALL-SCALE INDUSTRIES (SSI) AND COTTAGE INDUSTRIES

The Small-Scale Industries Sector has acquired an important position in the economic structure of the country. As per the published Report of the Development Commissioner, Small Scale Industries (DCSSI), the sector encompasses about 32 lakh units, during 1998-99 which produce over 7500 different items for domestic as well as foreign markets, contributing to about 40per cent of the value added to the manufacturing sector and its share in national exports stands at over 34per cent. The Sector accounts for about 95per cent of industrial units in the country and provides a gainful employment to about 175 lakh persons.

The spectrum of industries extends from the organised large and medium industries to modern Small-Scale Industries and unorganised traditional industries. The last two (i.e. modern Small-Scale Industries and unorganised traditional industries) are commonly called as Village and Small Industries (VSI). The VSI sector is divided into seven sub-sectors namely, Handicrafts, Handlooms, Khadi and Village Industries, Coir, Sericulture, Power Looms and Small-Scale Industries not falling in any of these categories, which are referred to as residuals. The first five sub-sectors are often referred to as "traditional sector" whereas the power looms and residual Small-Scale Industries are known as the "modern" Small Scale Sector. For the purpose of administration and development of these sub-sectors, there are supervisory bodies or boards at the Central level. These bodies are Development Commissioner for Handicrafts, Development Commissioner for Handlooms, Khadi and Village Industries Commission, Coir Board, Central Silk

Board, Textile Commissioner and the Development Commissioner for Small Scale Industries (DCSSI).

A brief account on the Cottage Industries in India

The Cottage Industry is a form of unorganised industry in which people are engaged in craftsmanship works such as handicraft, pottery, knitting, handloom, etc. They are generally set up at the individual's home or a nearby place and the workers use traditional equipment. This type of industry is associated with Community Development Programmes, Poverty Alleviation Programmes and Integrated Rural Development.

Milk-based industry, handloom and power loom industry, oilseed industry and food processing in Gujarat; Stone-cutting carpet-making and handicraft industry in Rajasthan; Handloom and power loom, milk-products (mainly Tarai region) in Uttar Pradesh; Food-processing, handloom and power loom, milk products etc. in outskirts region of metropolitans.

Important Facts about Indian Cottage Industries

1. Central Silk Industry Research Institute has been established at Behrampur (Kolkata) for the purpose of silk related research.
2. There are four types of Silk produced in India i.e. Mulberry, Tassar, Munga and Eri.
3. More than 50% of the Gur & Khandsari of the country produced by the Uttar Pradesh.
4. Cottage Industry Board was established in 1948.
5. Central Silk Board was established in 1949.
6. All India Handloom Board was established in 1950.
7. All India Handicrafts Board was established in 1953.
8. All India Khadi & Gramodyog Board was established in 1954.
9. Small Industry Board was established in 1954.
10. Central Sales Organisation was established in 1958.

It is noteworthy that the large-scale industries those have created a wide gap between capitals and labour, whereas Cottage Industry increases the attachment labour for their family which develops better sentiments. Hence, we can say that development of Cottage Industry is parallel important as the development of small, medium and large industries because it gives more rural employment.

3.5.1 Problems and Prospects of SSI in Indian Economy

The phenomenal growth of industries in the small-scale sector has been the striking feature in the economic development of the country since independence. It has contributed to the overall growth or the Gross Domestic Product as well as in terms of employment generation and export.

One of the measures of the policy support for promoting small-scale industries is the policy of reservation of economically viable and technically feasible items for exclusive manufacture in the small-scale sector. The policy of reservation initiated in 1967 primarily as promotional and protective measure vis-avis the large-scale sector, grants protection to small scale sector, the only exception being the case of large units which undertake minimum level of exports as 75 per cent of their total production. The IDR Act was amended in March, 1984 empowering Government to reserve items for the small scale sector. Reservation/De-reservation of items for manufacture in the small-scale sector is a continuing process regularly monitored by an Advisory committee on Reservation constituted under the IDR Act at present the total number of items reserved for small scale sector are 799 as on 29 June 2001.

The small-scale sector has acquired a prominent place in the socio-economic development of the country during the past four and a half decades. It has contributed to the overall growth of the gross domestic product as well as in terms of employment generation and export. Performance of the small-scale sector, which forms a part of total industrial sector, therefore, has direct impact on the growth of the national economy.

There has been a steady increase in the number of SSI units, their production, employment and exports over the years from 19,58,000 units in 1990-91, the number of units has increased to 33, 70,000 units in the year 2000-01. On the production front also, there has been a steady increase over the past years ranging between 7 per cent-10 per cent during the period 1990-91 to 1994-95, the increase was 11.4 per cent and 11.3 per cent in 1995-96 and 1996-97 respectively. In 1997-98 the increase over the previous year was registered at 8.43 per cent. The increase in the year 1998-99 & 1999-2000 were 7.7 per cent, and 8.16 per cent respectively. The increase for 2000-01 was 8.09 per cent.

As of Dec, 2019, total SSI sector comprises 1,05,21,190 units, spread across the country.

The main issues related to small-scale industries are listed as follows:

1. Most production processes are old and outdated
2. The workers are not technically sound.
3. The location of the units is not very convenient.
4. The units are not always economically viable because the cost of inputs is high, the size of the projects is uneconomic, financial requirements are not estimated properly and there is always an overestimation of demand.
5. Capacity is underutilized; quality control is poor; inventory management and maintenance is inadequate;
6. There is high wastage.
7. Handling of labour problems is inefficient
8. Manpower may be in excess but there is a death of skilled labour.
9. There is always a dependence on a single or small group of customers
10. Pricing policy is inappropriate.

NOTES

11. There is a lack of market research.
12. The working capital is inadequate.
13. Management is incompetent mainly due to lack of feedback to the higher ups and lack of professionalism

Other than the problems listed above, there are also external factors that pose problems for small-scale industries.

1. The supply of raw materials is not regular.
2. Transport issues arise frequently due to long distances, poor quality of roads, natural disasters and weather issues.
3. Change in the policies of the government and price controls bring work to a standstill.
4. There are market limitations in terms of saturation and technological advancements causing existing products to become obsolete.
5. Multiplicity of labour unions as well as instability in terms of political situations can hinder work.

The Small Scale Industry Sector has emerged as India's engine of growth in the New Millennium. By the end of March 2000, the SSI sector accounted for nearly 40 per cent of gross value of output in the manufacturing sector and 35 per cent of total exports from the country. Through over 32 lakh units, the sector provided employment to about 18 million people.

The ongoing programme of Economic Reforms based upon the principle of liberalization, globalization and privatization and the changes at the international economic scene including the emergence of World Trade Organisation (WTO), have brought certain challenges and several new opportunities before the SSI Sector. The most important challenge faced by the sector is that of growing competition both globally and domestically. At the same time sector has also been facing some problems which relate to credit, infrastructure, technology, marketing, delayed payment hassles on account of so many rules and regulations etc. In order to enable this sector to avail the opportunities and play its role as an engine of growth, it is essential to address to these problems effectively and urgently.

With a view to provide more focused attention on the development of SSI, the Government of India created a new Ministry of Small-Scale Industries & Agro and Rural Industries in October 1999. Immediately after the formation of the Ministry, a Mission for the Millennium giving a blue print for small scale and village industries was announced. To carve out a road map for this sector in the New Millennium, the Hon'ble Prime Minister constituted a Group of Ministers under the Chairmanship of Shri L.K. Advani the Home Minister of India in June 2000. The background material for the consideration of the Group of Ministers was provided by the Interim Report of the S.P. Gupta Study Team constituted by the Planning Commission.

NOTES

Policy support: The investment limit for the Tiny Sector will continue to be ₹25 lakhs. The investment limit for the SSI sector will continue to be at ₹1 crore. The Ministry of SSI & ARI will bring out a specific list of hi-tech and export-oriented industries which would require the investment limit to be raised upto ₹5 crores to admit of suitable technology upgradation and to enable them to maintain their competitive edge. The Limited Partnership Act will be drafted quickly and got enacted. Attempt will be made to bring the Bill before the next session of the Parliament.

Fiscal support: To improve the competitiveness of Small-Scale Sector, the exemption for excise duty limit raised from ₹50 lakhs to ₹1 crore.

Credit support: The composite loans limit raised from ₹10 lakhs to ₹25 lakhs. The Small-Scale Service and Business (Industry Related) Enterprises (SSSBEs) with a maximum investment of ₹10 lakhs will qualify for priority lending. In the National Equity Fund Scheme, the project cost limit will be raised from ₹25 lakhs to ₹50 lakhs. The soft loan limit will be retained at 25 per cent of the project cost subject to a maximum of ₹10 lakhs per project. Assistance under the NEF will be provided at a service charge of 5 per cent per annum.

Table 3.1 gives the Performance of Small-Scale Sector.

***Table 3.1** Performance of Small-Scale Sector*

Year	No. of units (lakh)			Production (₹ Crore)		Employment	Exports
	Regd.	Unregd.	Total	(at current prices)	(at constant prices)*	in lakh	(₹ crore)
1994-95	19.44	6.27	25.71	2,98,886	2,66,054	146.56	29,068
			(7.66)	(23.69)	(10.10)	(5.15)	(14.86)
1994-95	11.61	67.99	79.60	1,22,210	1,09,116	191.40	29,068
			(4.1)	(23.7)	(10.4)	(4.8)	(14.9)
1995-96	11.57	71.27	82.84	1,48,290	1,21,649	197.93	36,470
			(4.1)	(21.3)	(11.5)	(3.4)	(25.5)
1996-97	11.99	74.22	86.21	1,68,413	1,35,380	205.86	39,248
			(4.1)	(13.6)	(11.3)	(4.0)	(7.6)
1997-98	12.04	77.67	89.71	1,89,178	1,47,824	213.16	44,442
			(4.1)	(12.3)	(9.2)	(3.5)	(13.2)
1998-99	12.00	81.36	93.36	2,12,901	1,59,407	220.55	48,979
			(4.1)	(12.5)	(7.8)	(3.5)	(10.2)
1999-2000	12.32	84.83	97.15	2,34,255	1,70,709	229.10	54,200
			(4.1)	(10.0)	(7.1)	(3.9)	(10.7)
2000-01	13.10	88.00	101.10	2,61,289	1,84,428	239.09	69,797
			(4.1)	(11.5)	(8.0)	(4.4)	(28.8)
2001-02	13.75	91.46	105.21	2,82,270	1,95,613	249.09	71,244
			(4.1)	(8.0)	(6.1)	(4.2)	(2.1)
2002-03	14.68	95.42	110.10	3,11,993	2,10,636	261.38	86,013
			(4.6)	(10.5)	(7.7)	(4.9)	(20.7)
2003-04	15.54	99.68	115.22	3,48,059	2,26,392"	273.97	N.A.
			(4.7)	(11.6)	(7.5)	(4.8)	

* : 1993-94 prices.

**: Based on growth rate of 7.48% achieved in first 9 months of 2003-04 i.e. April-December, 2003.

Note: Figures in brackets indicate percentage growth over previous years.

Source: Ministry of Small Scale Industries.

Small Medium and Micro Scale Industries

A notable sector of the Indian economy, the small scale industry (SSI) emerged during the 1980s. At present, it accounts for nearly 35 per cent of the gross value of output in the manufacturing sector and over 40 per cent of the total exports from the country. It also provides employment opportunities to around 12 million people.

The primary objective of the SSI policy of the Government of India is to impart more vitality and growth-impetus to the sector and enable it to contribute its might fully to the economy, particularly in terms of growth of output, employment and exports. The sector has been substantially delicensed. Further efforts are being made to deregulate and de-bureaucratize the sector with a view to remove all fetters on its growth potential, reposing greater faith in small and young entrepreneurs.

Policies for the Development of Micro, Small and Medium Enterprises (MSME) Sector

The Indian government has adopted many policies and programmes for the development of Micro, Small and Medium Enterprises (MSME) sector, which may be discussed under the following heads:

Reservation policy

Reservation of products for exclusive manufacture in the small scale sector was introduced for the first time in 1967 with the reservation of forty-seven items. Reservation affords support to SSIs against competition from medium/large/ multinational companies. Reservation/de-reservation is a continuous process. As of 20 July 2010, twenty items were reserved for exclusive manufacture in the small scale sector.

Licensing policy

The major impact of liberalisation and globalization of economy, which started in India in July 1991, aimed at doing away with the system of Compulsory Licensing. As of now, four industries are reserved for the Public Sector such as Arms and ammunition and allied items of defence equipment, defence aircraft and warships, atomic energy and the railways; and six industries fall under the compulsory licensing. These comprise breweries and distilleries, tobacco industry, electronic aerospace and defence equipment of all types, industrial explosives such as detonating fuses, safety fuses, gunpowder, hazardous chemicals, pharmaceuticals and others. Small units that employ less fifty workers and less than hundred workers are not required to obtain any license under Compulsory Licensing Provisions.

Trade policy

Exports from the small scale sector over a period of time have acquired great significance in India's foreign trade. The MSME sector today constitutes a very important segment of India's economy and it accounts for nearly 40 per cent of the gross value of output in the manufacturing sector and about 50 per cent of the total exports from the country. Direct exports from the MSME sector account for 35 per cent of the total exports.

Export Promotion from the small scale sector has been accorded a high priority in the India's export promotion strategy. The small industries due to their inherent strengths of low capital investment, high employment generation, maximum utilization of capacity, flexibility in operation, etc. are highly conducive for rapid Industrialization and generation of export surpluses.

NOTES

Export-Import Policy for Small Scale Sector

Recognition of export houses/trading houses, etc: The EXIM Policy in 1997–2002 policy has laid down certain criterion in order to recognize established exporters so that the marketing infrastructure can be further accentuated. The eligibility criteria for such recognition is based either on the basis of Free on Board (FOB) or Net Foreign Exchange value of exports of goods and services made directly by the exporters during the preceding three licensing years or the preceding licensing year. In an attempt to encourage exports from the small scale sector, the exports made by small scale sector manufacturer-exporters are given triple weightage for the purpose of recognition as EH/TH/STH/SSTH.

Special import licence (SIL): Exporters recognized as Export Houses, Star Trading House, Trading Houses, etc. are eligible for grant of Special Import Licence (SIL) at certain percentage of their FOB value of exports/NFE.

Promotional schemes

To meet the challenges of international competition and to promote exports of MSME products, following promotional schemes are also being implemented:

(i) Technology development and modernization fund scheme

Small Industries Development Bank of India (SIDBI) implemented a scheme of technology development and modernization of MSME units with effect from April 1995. Under this scheme assistance is available for meeting the expenditure on purchase of capital equipment, acquisition of technical know-how, upgradation of process technology and products with thrust on quality improvement, improvement of packaging and cost of TQM and acquisition of ISO-9000 series certification. The coverage of the scheme has been enlarged from export-oriented units to non-exporting units also in September 1997. Under this Scheme a sum of ₹152 crores had been sanctioned for 245 units by April, 1999.

(ii) Quality awareness scheme

Small Industries Service Institutes often organize Workshops on ISO-9000 on certification and awareness of quality.

Subsidy for obtaining ISO-9000 quality Certification

Under the scheme of promoting ISO-9000 certification MSMEs are given financial support by way of reimbursing 75 per cent of their expenditure to obtain ISO-9000 certification subject to a maximum of ₹75,000.

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National small industries corporation

The National Small Industries Corporation (NSIC) through its export development programme is playing a vital role to promote the MSME sector in exporting their products/projects in international, markets by providing following assistance to the small enterprises. Various ways by which NSICs could be marketed and promoted are as follows:

- Organizing International Exhibitions and Buyers-Sellers meet
- Providing information related to sales opportunities available in international market
- Advertising and publicity in various countries through Indian High Commissions and the Internet
- Publication of Exporters Directory
- Participating in Global Tenders
- Providing assistance in deemed exports
- Organization of Seminars and Workshops to upgrade and update MSME with regard to international developments

Foreign Direct Investment (FDI) Approval:

- An industrial undertaking, i.e., a company with interests in industry can invest up to 24 per cent equity in an SSI unit.
- If the equity goes beyond 24 per cent, the industrial unit loses its SSI status.
- There is no restriction on the extent of equity that can be held by a Non-resident Indian (NRI) as an individual/partner in an SSI unit.
- Investors need to file an application with the Reserve Bank of India (RBI) in the prescribed format and approval is ordinarily granted within 15 days.
- For foreign investment outside the automatic route, clearance has to be obtained from Foreign Investment Promotion Board (FIPB).
- Applications for setting up a 100 per cent Export Oriented Unit are also required to be filed with the SIA.
- For setting up a unit in an Export Processing Zone (EPZ), application has to be filed with the Development Commissioner of the concerned EPZ.
- Under automatic procedures, foreign technology agreements are being permitted in respect of industries that are designated as high priority industries.
- The use of foreign brand names and / or trade mark of goods is also now being permitted freely.

Credit Policy

Of all the elements that go into a business, credit is perhaps the most crucial. The best of plans can come to a naught, if adequate finance is not available at the right time. MSMEs need credit support not only for running the enterprise and operational requirements but also for diversification, modernization/upgradation of facilities, capacity expansion and so on. With respect to MSMEs, the problem of credit becomes all the more critical whenever any episodic event occurs such as a large order, rejection of consignment, inordinate delay in payment and so on. In general, MSMEs operate on tight budgets, often financed through owner's own contribution, loans from friends and relatives and some bank credit.

Government of India recognized the need for a focused credit policy for MSMEs in the early days of promotion of MSMEs. This in turn led to a credit policy with the following components:

Priority sector lending

Credit to the MSE sector is ensured as part of the priority sector lending by banks. Banks are required to compulsorily ensure that specified percentage (currently 40 per cent for domestic commercial banks and 32 per cent for foreign banks) of their overall lending is made to priority sectors as classified by Government. These sectors include agriculture, small enterprises, retail trade and the like. Institutional Arrangement

Small Industries Development Bank of India (SIDBI) is the principal financial institution for promotion, financing and development of the MSME sector. Apart from extending financial assistance to the sector, it coordinates the functions of institutions engaged in similar activities. SIDBI's major operations are in the areas of (i) refinance assistance (ii) direct lending and (iii) development and support services. The commercial banks are important channels of credit dispensation to the sector and play a pivotal role in financing the working capital requirements, besides providing term loans (in the form of composite loans). State Financial Corporations (SFCs) and twin-function State Industrial Development Corporations (SIDCs) at the State level are the main sources of long-term finance for the MSME sector.

Labour Policy

Comprehensive laws as propounded by the government govern the Labour Policies for Small Scale Industries. The following laws and policies are applicable for Small Scale Industries in India:

- Apprentices Act, 1961
- The Beedi and Cigar Workers (Conditions of Employment) Act, 1966
- Bonded Labour System (Abolition) Act, 1976
- Child Labour (Prohibition & Regulation) Act, 1986
- The Children (Pledging of Labour) Act, 1933
- The Contract Labour (Regulation & Abolition) Act, 1970
- The Employees Provident Funds and Misc. Provisions Act, 1952
- Employees State Insurance Act, 1948

NOTES

- Employers Liability Act, 1938
- Employment Exchange (Compulsory Notification of Vacancies) Act, 1959
- Equal Remuneration Act, 1976
- The Factories Act, 1948
- The Industrial Disputes Act
- The Industrial Employment (Standing Orders) Act,1946
- The Inter-state Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979
- Labour Laws (Exemption from Furnishing Returns & Maintaining Registers by Certain Establishments) Act, 1988
- Maternity Benefit Act, 1961
- The Minimum Wages Act, 1948
- The Payment of Bonus Act, 1965
- The Payment of Gratuity Act, 1972
- The Payment of Wages Act, 1936
- The Sales Promotion Employees (Conditions of Service) Act, 1976
- The Shops and Establishments Act, 1953
- The Trade Union Act, 1926
- Workmen's Compensation Act, 1923
- The Weekly Holidays Act, 1942

Check Your Progress

5. How are the village and small industries sector divided?
6. What are cottage industries?

3.6 START-UP INDIA AND MAKE IN INDIA

Let us begin by discussing Startup India.

Startup India

Startup India is a flagship initiative of the Government of India, intended to catalyse startup culture and build a strong and inclusive ecosystem for innovation and entrepreneurship in India.

Launched on 16th January 2016, the Startup India Initiative has rolled out several programs with the objective of supporting entrepreneurs, building a robust startup ecosystem and transforming India into a country of job creators instead of job seekers. These programs are managed by a dedicated Startup India Team, which reports to the Department for Industrial Policy and Promotion (DPIIT).

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Make in India

Make in India is a major new national programme of the Government of India designed to facilitate investment, foster innovation, enhance skill development, protect intellectual property and build best in class manufacturing infrastructure in the country. The primary objective of this initiative is to attract investments from across the globe and strengthen India's manufacturing sector. It is being led by the Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce and Industry, Government of India. The Make in India programme is very important for the economic growth of India as it aims at utilising the existing Indian talent base, creating additional employment opportunities and empowering secondary and tertiary sector. The programme also aims at improving India's rank on the Ease of Doing Business index by eliminating the unnecessary laws and regulations, making bureaucratic processes easier, making the government more transparent, responsive and accountable.

The focus of Make in India programme is on 25 sectors. These include: automobiles, aviation, chemicals, IT & BPM, pharmaceuticals, construction, defence manufacturing, electrical machinery, food processing, textiles and garments, ports, leather, media and entertainment, wellness, mining, tourism and hospitality, railways, automobile components, renewable energy, biotechnology, space, thermal power, roads and highways and electronics systems.

The dedicated website for this initiative (www.makeinindia.com) not only showcases the 25 sectors but also puts focus on the live projects like industrial corridors and policies in the area of foreign direct investment, national manufacturing, intellectual property and new initiatives. The Investor Facilitation Cell is an integral part of this website, which aims at providing all information/data analysis to investors across sectors.

Check Your Progress

7. What is Startup India?
8. Mention the primary objective of Make in India.

3.7 ANSWERS TO 'CHECK YOUR PROGRESS'

1. The 1956 industry policy has six objectives.
2. The principle objectives sought to be achieved through the MRTP Act are as follows:
    - prevention of concentration of economic power to the common detriment
    - control of monopolies,
    - prohibition of monopolistic and restrictive and unfair trade practices.
3. Industrial Policy Resolution of the Government of India declares that a dynamic national policy must be directed to a continuous increase in

NOTES

production by all possible means, side-by-side with measures to secure its equitable distribution.

4. The major aim of economic reforms is to improve the public sector so that the rate of return improves.
5. The Village and Small Industries sector are divided into seven sub-sectors namely, Handicrafts, Handlooms, Khadi and Village Industries, Coir, Sericulture, Power Looms and Small-Scale Industries.
6. The Cottage Industry is a form of unorganized industry in which people are engaged in craftsmanship works such as handicraft, pottery, knitting, handloom, etc. They are generally set up at the individual's home or a nearby place and the workers use traditional equipment.
7. Startup India is a flagship initiative of the Government of India, intended to catalyse startup culture and build a strong and inclusive ecosystem for innovation and entrepreneurship in India.
8. The primary objective of Make in India initiative is to attract investments from across the globe and strengthen India's manufacturing sector.

3.8 SUMMARY

- The 1956 industrial policy has six objectives: (i) to accelerate economic growth and industrial development of the country, (ii) to expand the public sector, (iii) to prevent the growth of monopolies and the concentration of economic powers in the hands of a few people, (iv) to develop a large cooperative sector, (v) to develop heavy and machine-made industries, and (vi) to reduce disparities in wealth and income.
- In order to promote the development of small-scale industries and ensure their rapid growth, the Government has decided to increase the limit of investment in case of tiny units from ₹1 lakh to ₹2 lakh
- Jawaharlal Nehru laid the foundations of modern India.
- The aims and objectives set out for the nation by Nehru on the eve of independence were rapid agricultural and industrial development of the country, rapid expansion of opportunities for gainful employment, progressive reduction of social and economic disparities, removal of poverty and attainment of self-reliance.
- In 1948, the Government adopted the industrial policy resolution which emphasised the importance to the economy of securing a continuous increase in production and ensuring its equitable distribution.
- In the 1950s and 1960s the principal instrument for controlling the commanding heights of the economy was investment in the capital of key industries.

NOTES

- The public sector or public enterprises include all governmental activities including public industrial or commercial enterprises. Public enterprise occupies a strategic and crucial position in the Indian economy.
- The entry of the public sector in a big way in the economic sphere is a post-Independence development.
- The public sector was meant to socialize the means of mass production and benefit the masses, as is typically the case in a socialistic pattern of society.
- The major aim of economic reforms is to improve the public sector so that the rate of return improves.
- Madhya Pradesh government announced its long awaited industry policy. It makes it mandatory for upcoming industries to reserve 50 per cent direct job to locals.
- The Small-Scale Industries Sector has acquired an important position in the economic structure of the country.
- The phenomenal growth of industries in the small-scale sector has been the striking feature in the economic development of the country since independence.
- Startup India is a flagship initiative of the Government of India, intended to catalyse startup culture and build a strong and inclusive ecosystem for innovation and entrepreneurship in India.
- Make in India is a major new national programme of the Government of India designed to facilitate investment, foster innovation, enhance skill development, protect intellectual property and build best in class manufacturing infrastructure in the country.

3.9 KEY TERMS

- **Small-scale industry**: Small scale industries (SSI) are those industries in which manufacturing, providing services, productions are done on a small scale or micro scale.
- **Public sector:** The public sector is the part of the economy composed of both public services and public enterprises.

3.10 SELF-ASSESSMENT QUESTIONS AND EXERCISES

Short-Answer Questions

1. Write a short note on 1956 industrial policy.
2. What are the highlights of industrial policy of July 1980?
3. What are the different kinds of public sector organizations?

4. How has the industrial policy of Madhya Pradesh evolved?
5. Give a brief account of the cottage industries in India.

Long-Answer Questions

1. How has the industrial policy of India changed since 1950s? Discuss some of the major industrial policies.
2. Discribe the role of public sector in industrialization.
3. Discuss the recent policies of the government of India for the public sector.
4. What are the problems faced by small scale industries in India? Elucidate.
5. Discuss the major promotional policies that have been implemented to develop the micro, small and medium enterprises (MSME) sector.

3.11 FURTHER READING

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UNIT 4 INFRASTRUCTURE OF INDIAN ECONOMY

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Structure

4.0 INTRODUCTION

For a sustained economic growth of a country, a well-known and coordinated system of transport plays a significant role. India's present transport system involves numerous modes of transport, such as railways, road, shipping, air transport, etc. Over the years, transportation in India has recorded a considerable growth — both in spread of network and in output of the system.

The other components of the Indian infrastructure are power, communication, banking and finance, etc. In this unit we will also learn about FDI and the role of MNCs.

4.1 OBJECTIVES

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

- Discuss the role of infrastructure in Indian economy
- Understand the evolution of communication in India
- Describe the composition and direction of India's foreign trade
- Learn about the role of FDI and MNCs in the Indian economy

4.2 POWER AND TRANSPORTATION

Let us discuss the transportation sector by examining the Indian road sector.

Road Sector

Road transport is vital to the economic development and social integration of the country. Easy accessibility, flexibility of operations, door-to-door service and

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reliability have earned road transport an increasingly higher share of both passenger and freight traffic vis-à-vis other transport modes. India has one of the largest road networks in the world, aggregating to about 33 lakh kilometres at present. The country's road network consists of National Highways, State Highways, major/ other district roads and village/rural roads (Table 4.1). Though the National Highways, which is the responsibility of the Central Government, has about 70,548 km length and comprises only 2 per cent of the total length of roads, carries over 40 per cent of the total traffic across the length and breadth of the country.

Table 4.1 *National Highways, State Highways, Major and Other District Roads and Rural Roads*

National Highways/Expressways	70,548 KM
State Highways	128,000 KM
Major and other District Roads	470,000 KM
Rural Roads	2,650,000 KM

Source: www.india.gov.in

Road transport has emerged as the dominant segment in India's transportation sector with a share of 4.8 per cent in India's GDP in comparison to railways that has a mere 1.5 per cent share in 2018–19. Road transport has gained in importance over the years despite significant barriers to inter-state freight and passenger movement compared to inland waterways, railways and air which do not face rigorous *en route* checks/barriers.

Both freight and passenger movement by road is expected to rapidly expand in the coming years. In particular, freight movement by road transport is expected to show robust growth over the medium term due to a number of factors (a) substantial investment in improvement in national highway network which will facilitate speedy, reliable and door to door services; (b) freight movement by road transport offers a complete logistic solution that minimizes the cost of transport, logistics and inventories; and (c) rising volumes of exports and imports. More importantly, the growth in exports is expected to increase the demand for inland transport for moving cargo from production centres in the gateway ports – both air and sea.

Railways Sector

The Railways in India provide the principle mode of transportation for freight and passengers. It brings together people from the farthest corners of the country and makes possible the conduct of business, sightseeing, pilgrimage and education. It has bound the economic life of the country and helped in accelerating the development of industry and agriculture. The Railways were introduced in India in 1853 and with their expansion through the twentieth century, company managed and state-owned several railway systems grew up. To enforce standardisation and co-ordination amongst various railway systems, the Indian Railway Conference Association (IRCA) was set up in 1903 followed by the Central Standards Office (CSO) in 1930, for preparation of designs, standards and specifications. However, till independence, most of the designs and manufacture of railway equipments was entrusted to foreign consultants. But with Independence and the resultant phenomenal growth in country's industrial and economic activities leading to increase in the demand for rail transportation, there was a complete shift in emphasis in the field of design & manufacture. Consequently, a new organization called Railway Testing and Research Centre (RTRC) was set up on 1st September, 1952 with its headquarter at Lucknow for testing and conducting indigenous applied research in railway technology. Later on, Central Standards Office (CSO) and the Railway Testing and Research Centre (RTRC) were merged into a single unit and thus in 1957, Research Designs and Standards Organization (RDSO) came into being as an attached office of Railway Board.

RDSO is the sole R&D organization of Indian Railways and functions as the technical advisor to Railway Board, Zonal Railways and Production Units. Basically, its major functions involve:

- Development of new and improved designs.
- Development, adoption, absorption of new technology for use on Indian Railways.
- Development of standards for materials and products specially needed by Indian Railways.
- Technical investigation, statutory clearances, testing and providing consultancy services.
- Inspection of critical and safety items of rolling stock, locomotives, signalling & telecommunication equipment and track components.

RDSO also offers international consultancy services in matters pertaining to design, testing and inspection of railway equipments as well as survey for construction of new lines. The significant accomplishments of RDSO in the sphere of research and development have always attracted worldwide attention.

Table 4.2 provides the growth in core industries and infrastructure services (in per cent)

Table 4.2 *Growth in Core Industries and Infrastructure Services (in per cent)*

Sl. No.	Sector	2007-08	2008-09	2009-10	2010-11	2011-12 (April-Dec.)
1.	Power	6.3	2.5	6.8	5.7	9.3
2.	Coal	6.0	8.2	8.0	0.0	-2.7
3.	Finished steel	6.8	13.2	3.2	9.6	5.7
4.	Fertilizers	-8.6	-2.6	13.2	1.0	-0.5
5.	Cement	7.8	7.6	10.1	4.3	5.1
6.	Petroleum:					
	(a) Crude oil	0.4	-1.8	0.5	11.9	1.9
	(b) Refinery	6.5	3.0	-0.4	3.0	4.1
	(c) Naturai gas	2.1	1.4	44.8	9.9	-8.8
7.	Railway revenue-earning freight traffic	9.0	4.9	6.6	3.8	4.7
8.	Cargo handled at major ports	12.0	2.2	5.7	1.6	0.4
9.	Civil aviation:					
	(a) Export cargo handled	7.5	3.4	10.4	13.4	-1.1
	(b) Import cargo handled	19.7	-5.7	7.9	20.6	1.4

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	(c) Passengers handled at international terminals	11.9	3.8	5.7	11.5	7.2
	(d) Passengers handled at domestic terminals	20.6	-12.1	14.5	16.1	17.5
10.	**Telecommunications; Cell phone** connections	38.3	80.9	47.3	18.0	-51.0
11.	**Roads: Upgradation of highways***					
	(i) NHAI	164.6	30.9	21.4	-33.3	8.9
	(ii) NH(O) & BRDB	12.5	17.3	4.0	-6.8	-36.5

Source: Ministry of Statistics and Programme Implementation (MOSPI).

* Includes Widening to four lanes & two lanes and Strengthening of existing weak pavement only.

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Notes: NH(O) stands for National Highways Organization and BRDB for the Border Roads Development Board (BRDB).

Performance of broad sectors and sub-sectors in key infrastructure areas in the current year presents a mixed picture. There was an improvement in growth in power, petroleum refinery, cement, railway freight traffic, passengers handled at domestic terminals, and upgradation of highways by the National Highways Authority of India (NHAI). Coal, natural gas, fertilizers, handling of export cargo at airports, and the number of cell phone connections showed negative growth. Steel sector witnessed moderation in growth.

Energy

Energy is the prime mover of economic growth. Availability of sufficient and efficient energy is key to sustainable development of a country. Commercial energy has also a direct impact and influence on the quality of service in the fields of education, health and, in fact, even food security. Inadequacy of energy supply would obviously affect very adversely these vital and essential requirements of any society. There is, therefore, an urgent need to enhance substantially the energy availability at a rapid pace so that aspirations of those who have remained insulated from such important inputs and services are fulfilled and they are enabled to have a reasonable access.

Three main sources of energy in India are thermal, hydro and nuclear. Table 4.3 gives power generation by utilities (billion KWh)

Table 4.3 *Power Generation by Utilities (Billion KWh)*

Category	2009-10	2009-10	April-December		Growth (percent)
			2010-11	2011-11	
Power generation	771.551	811.143	598.244	653.446	9.23
Hydroelectric #	106.680	114.257	90.169	107.51	19.23
Thermal	640.876	665.008	484.860	517.116	6.65
Nuclear	18.636	26.266	17.854	23.79C	33.24
Bhutan import	5.358	5.610	5.360	5.02C	-6.19

Electricity generation by power utilities during 2011-12 increased by 5.4 per cent to reach 855 billion units. Growth in power generation during April-December 2011 was 9.2 per cent as compared to 4.6 per cent during April-December 2010. Nuclear, hydro, and thermal generation registered a growth of 33.2 per cent, 19.2 per cent, and 6.7 per cent respectively. In the first nine months 76 per cent of the generation target has been achieved. Power generation from thermal, hydel and nuclear plants is expected to grow 6.5% this fiscal year, nearly double of last year's rise of 3.5%. Total generation is estimated to be 1,330 billion in 2019-20, of which 85% would be from thermal plants.

Figure 4.1 depicts the trend of the national average of PLF of thermal plants. Plant Load Factor (PLF) is the measure of the efficiency of thermal power stations.

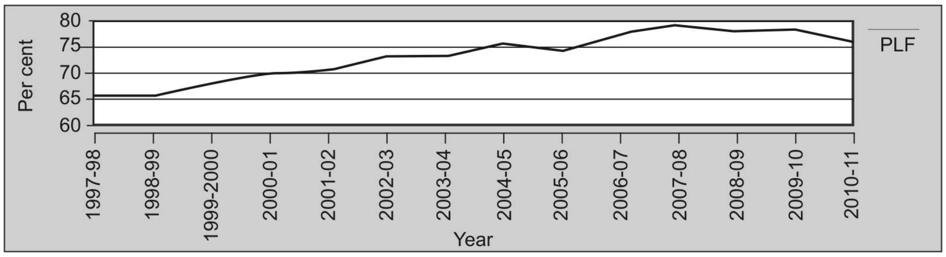

Fig. 4.1 *Trend of the National Average of PLF of Thermal Plants*

Development and Role of Thermal Energy

In India, thermal power plants account for 65 per cent of the installed capacity in the country. A thermal power plant is usually a steam-driven power plant. There are variations in the functioning of different types of thermal power plants depending on the kind of fuel they use. The most frequently used fuel for thermal power plants in India is coal.

Major Thermal Power Plants in India

- Durgapur Thermal Power Station, Durgapur, West Bengal
- Indraprastha PS, Delhi, NCT Delhi
- National Capital TPP, Vidyutnagar, Uttar Pradesh
- Rajghat PS, Delhi, NCT Delhi
- Rajiv Gandhi CCPP, Kayamkulam, Kerala
- Mundra Thermal Power Station, Kutch, Gujarat
- Vindhyachal Super Thermal Power Station, Singrauli, Madhya Pradesh
- Talcher Super Thermal Power Station, Angul, Orissa
- Amravati Thermal Power Plant, Amravati, Maharashtra
- Korba Super Thermal Power Plant, Korba, Chattisgarh
- NTPC Ramagundam, Karimnagar, Andhra Pradesh
- Mejia Thermal Power Station, Bankura, West Bengal
- Farakka Super Thermal Power Station, Murshidabad, West Bengal
- Simhadri Super Thermal Power Plant, Visakhapatnam, Andhra Pradesh

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- NTPC Dadri, Gautam Budh Nagar, Uttar Pradesh
- Ambala Diesel Power Station, Haryana
- Gangtok Diesel Power Station, Gangtok, Sikkim
- Utran Gas Based CCPP, Surat Gujarat

In the thermal category, growth in generation from coal, lignite, and gas-based stations in the 2011 fiscal (April-December) was of the order of 9.2 per cent, 3.8 per cent, and - 4.0 per cent respectively. The overall plant load factor (PLF), a measure of efficiency of thermal power stations, at 72.1 per cent during April-December 2011 was marginally lower than the PLF of 72.9 per cent achieved during April-December 2010.

The sector-wise and region-wise break-up of the PLF from 2008-9 to 2011-12 (April to December 2011) shows wide variation across regions and sectors. In the current year, while the PLF of the central-sector utilities moderated, private-sector utilities witnessed an improvement. The PLF of utilities in the state sector remained lower than that of private- and central-sector utilities. In terms of regional spread, moderation in PLF in the current year was across all the regions. Utilities in the eastern and north-eastern region continued to have a lower PLF.

Development and Role of Hydro Energy

India was the first nation to establish hydro-electric power plants. The foremost Hydro power plants in India were set up at Shimsha in 1902 and Darjeeling in 1898. The installed competence of Indian hydro power plants in the FY 2008-09 was 36877.76 approximately. Enhancing the level of energy consumption, particularly in less developed and developing countries, is a global challenge. 20 per cent of world population living in industrialised countries consume 60 per cent of energy and remaining 80per cent of population have to manage within 40 per cent of total energy. This has obviously resulted in wide disparities between the standard of living and quality of life of high energy consuming countries on the one hand and those who do not have the opportunities of adequate access to energy on the other. It is precisely for this reason that development of different sources of energy and increase in its consumption has become a priority agenda of all the developing countries.

In the context of electric power, as an important form of energy, the thermal and hydroelectric power on a global basis, have occupied the largest proportion. In the last 30 years, the proportion of hydroelectric capacity in the Indian power system has considerably reduced. It dropped from about 46 per cent in 1970 to 40 per cent in 1980, 29 per cent in 1990 and 25 per cent in 2003. By 2017, it had reduced to 13.5%. In spite of the great hydroelectric potential in India, which is now estimated to be of the order of 150,000 MW, the exploitation has been of the order of 44,594 MW as of April 2017.

Major Hydro Power Plants in India

- **Srisailam Dam:** Andhra Pradesh
- **Nagarjunasagar:** Andhra Pradesh

- **Sardar Sarovar:** Gujarat
- **Baspa-II:** Himachal Pradesh
- **Nathpa Jhakri:** Himachal Pradesh
- **Bhakra Dam:** Himachal Pradesh
- **Dehar:** Himachal Pradesh
- **Baira Suil:** Himachal Pradesh
- **Chamera-I:** Himachal Pradesh
- **Chamera-II:** Himachal Pradesh
- **Pong :** Himachal Pradesh
- **Uri Hydroelectric Dam:** Jammu & Kashmir
- **Dulhasti:** Jammu & Kashmir
- **Salal:** Jammu & Kashmir
- **Sharavathi:** Karnataka
- **Kalinadi:** Karnataka
- **Idukki:** Kerala
- **Omkareshwar:** Madhya Pradesh
- **Indira Sagar:** Maharashtra
- **Loktak:** Manipur
- **Koyna:** Maharashtra
- **Rangeet:** Sikkim
- **Teesta-V:** Sikkim
- **Tanakpur:** Uttarakhand
- **Dhauliganga-I:** Uttarakhand
- **Loharinag:** Uttaranchal
- **Tehri:** Uttarakhand

Development and Role of Renewable Energy

Renewable energy has been an important component of India's energy planning process since quite some time. The importance of renewable energy sources in the transition to a sustainable energy base was recognized in the early 1970s. At the Government level, political commitment to renewable energy manifested itself in the establishment of the first Department of Non-Conventional Energy Sources in 1982, which was then upgraded to a full-fledged Ministry of Non-Conventional Energy Sources (MNES) in 1992 subsequently renamed as Ministry of New and Renewable Energy (MNRE). This is the only such Ministry in the world. MNRE is the nodal Ministry of the Government of India at the Federal level for all matters relating to new and renewable energy. The Ministry has been facilitating the implementation of broad spectrum programmes including harnessing renewable power, renewable energy to rural areas for lighting, cooking and motive power, use of renewable energy in urban, industrial and commercial applications and

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development of alternate fuels and applications. In addition, it supports research, design and development of new and renewable energy technologies, products and services.

In April 2002, renewable energy based power generation installed capacity was 3475 MW which was 2 per cent of the total installed capacity in the country. As on 31.12.2010, it had reached 18,655 MW, which is about 11 per cent of the total installed capacity of 1, 68,945 MW and corresponds to a contribution of about 4.13 per cent in the electricity mix.

Development and Role of Nuclear Energy

After India attained independence in 1947, the Atomic Energy Commission was set up in 1948 for framing policies in respect of development of atomic energy in the country. The Department of Atomic Energy was established in 1954 with Dr. Bhabha as Secretary to implement the policies framed by the Atomic Energy Commission. Sir J.R.D Tata was one of the longest serving members in the Atomic Energy Commission and played a significant role in shaping the policies related to atomic energy program in the country.

The atomic energy program, which was initiated in a modest manner initially, has now grown as a wide spectrum, multi-dimensional multidisciplinary with 63 organizations under DAE. The spectrum of these significant activities include R&D in Nuclear Sciences and Engineering, Exploration & Mining of Radioisotopes, Nuclear energy development and implementation, application of Nuclear Energy, Bio-Agricultural Research, Medical Sciences, etc.

Atomic energy activities in the country are governed by the Atomic Energy Act. The commercial nuclear power program of the first stage (comprising of PHWRs and imported LWRs) is being implemented by Nuclear Power Corporation of India Limited (NPCIL), and the second stage (comprising of Fast Breeder Reactors) by Bharatiya Nabhikiya Vidyut Nigam Limited (BHAVINI), both companies owned fully by the union government in accordance with the provisions of the act.

In India, nuclear energy development began with the objectives of peaceful uses of atomic energy in improving the quality of life of the people and to achieve self-reliance in meeting the energy needs. The commercial nuclear power programme, started in 1969 with the operation of TAPS 1&2 (BWR), currently shares about 3 per cent of country's installed capacity.

Incidentally, India is not a very energy resource rich country. Currently, India's energy resource base status suggests the optimal mix of all the available energy resources to meet its growing demand of electricity which is projected to be about 800GWe by 2032 and 1300GWe by 2050.

Pressurized heavy water reactors and fast breeder reactors

The Indian nuclear programme was conceived based on, unique sequential three-stages and associated technologies essentially to aim at optimum utilization of the indigenous nuclear resource profile of modest Uranium and abundant Thorium

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resources. This sequential three-stage program is based on a closed fuel cycle, where the spent fuel of one stage is reprocessed to produce fuel for the next stage. The closed fuel cycle thus multiplies manifold the energy potential of the fuel and greatly reduces the quantity of waste generated.

The first stage comprises of Pressurized Heavy Water Reactors fuelled by natural uranium. Natural uranium contains only 0.7 per cent of Uranium-235, which undergoes fission to release energy (200Mev/atom). The remaining 99.3 per cent comprises Uranium-238 which is not fissile however it is converted in the nuclear reactor, to fissile element Pu-239. In the fission process, among other fission products, a small quantity of Plutonium-239 is formed by transmutation of Uranium-238.

The second stage, comprising of Fast Breeder Reactors (FBRs) are fuelled by mixed oxide of Uranium-238 and Plutonium-239, recovered by reprocessing of the first stage spent fuel. In FBRs, Plutonium-239 undergoes fission producing energy, and producing Plutonium-239 by transmutation of Uranium-238. Thus the FBRs produce energy and fuel, hence termed Breeders. FBRs produce more fuel than they consume. Over a period of time, Plutonium inventory can be built up by feeding Uranium-238.

Thorium-232, which constitutes world's third largest reserves in India, is not fissile therefore needs to be converted to a fissile material, Uranium-233, by transmutation in a fast breeder reactor. This is to be achieved through second stage of the program, consisting of commercial operation of Fast Breeder Reactors (FBRs).

In the second stage, once sufficient inventory of Plutonium-239 is built up, Thorium-232 will be introduced as a blanket material to be converted to Uranium-233. Considering the sequential nature of the indigenous nuclear power program, and the lead time involved at each stage, it is expected that appreciable time will be taken for direct thorium utilization. Therefore, innovative design of reactors for direct use of thorium is also in progress in parallel to three stage program. In this context, the frontier technologies being developed include the Accelerator Driven Systems (ADS) and Advanced Heavy Water Reactor (AHWR). The ADS essentially is a sub-critical system using high-energy particles for fission. One of the significant advantages of this system is small quantity of waste production. The quantity of waste in this system is greatly reduced in comparison to the existing reactors as Actinides produced in ADS are 'burnt' out.

The AHWR is another innovative concept, which will act as a bridge between the first and third stage essentially to advance thorium utilization without undergoing second stage of the three stage program. It uses light water as coolant and heavy water as moderator. It is fuelled by a mixture of Plutonium-239 and Thorium-232, with a sizeable amount of power coming from Thorium-232.

India is also an active partner in the international experimental initiative on harnessing fusion power for the future, the ITER project. India is supplying several components for this experimental reactor.

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Integrated Energy Policy

The Government of India has recently come out with the Integrated Energy Policy, which aims to bridge the prevailing gap in the demand and supply of energy in short, medium and long term perspective. Recognizing the role of both private and public sector participation in meeting the energy needs of the country, the policy strikes a right balance by stating that 'wherever possible energy market should be competitive. However, competition alone has been shown to have its limitation in a number of areas of the energy sector and independent regulation becomes even more critical in such instances'.

The approach of Integrated Energy Policy is summarized as follows:

- Till market matures in independent regulation across the energy streams is a necessity.
- Pricing and resource allocation to be determined by market forces under an effective and credible regulatory oversight.
- Transparent and targeted subsidies.
- Improved efficiencies across the energy chain.
- Policies that reflect externalities of energy consumption.
- Incentives/disincentives to regulate market and consumer behaviour.
- Management reforms to foster accountability and incentives for efficiency.

The Eleventh Five Year Plan initially envisaged a capacity addition of 78,700 MW, of which 19.9 per cent was hydro, 75.8 per cent thermal, and the rest nuclear. At the time of the Mid Term Appraisal (MTA) of the Eleventh Plan, the target was revised to 62,374 MW with thermal, hydro, and nuclear segments contributing 50,757 MW, 8,237 MW and 3,380 MW respectively. A capacity addition of 46,669.7 MW has so far been achieved until 15 January 2012. Projects with a capacity of 7,645 MW are under construction for commissioning during the remaining period. Capacity addition during the Eleventh Plan is, therefore, expected to be about 50,000 to 52,000 MW.

In the thermal sector, capacity addition continued to keep its momentum throughout the Plan period, except in the second year. During 2007-8, the first year of the Eleventh Five Year Plan, 9,263 MW thermal capacity was added. In 2008-9, as against a target of 7,530 MW, a capacity of only 3,454 MW could be added. Capacity addition during 2009-10 and 2010-11 was 9,585 MW and 12,160 MW respectively. In the current fiscal year, i.e., 2011-12, capacity addition of 17,601 MW has been planned and till 15 January 2012, 12,207.7 MW had already been added. This is the highest capacity addition ever achieved in a single year.

Check Your Progress

1. When was the Indian Railway Conference Association (IRCA) set up?
2. What is RDSO?
3. Mention any two major thermal power plants in India.

4.3 COMMUNICATION

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Indian Telecom industry has emerged as the fastest growing telecom market in the world. The opening of the telecom sector to the foreign investors has not only led to rapid growth in subscriber base but also helped a great deal towards maximization of consumer benefits, particularly in terms of price discovery following the moderate approach in tariffs. The success of the Indian telecommunications sector has become the cynosure of the world and has made the country a truly attractive investment destination. Presently, India has one of the lowest tariffs and one of the fastest growing telecom markets in the world.

The penetration of internet and broadband has also improved. The Government of India approved a project for creation of National Optical Fibre Network for connecting 2.5 lakh Gram Panchayats with support from Universal Service Obligation Fund (USOF). The proposed National Telecom Policy, under finalization in consultation with various stakeholders is a step forward for bringing rapid and equitable growth of this sector.

The number of telephone subscribers in India increased to 965.52 million at the end of June, 2012 from 960.90 million at the end of May 2012, thereby registering a growth rate of 0.48 per cent. The share of urban subscribers has declined to 64.40 per cent from 64.65 per cent whereas share of rural subscribers has increased to 35.60 per cent in the month of June 2012. With this, the overall tele-density in India reaches to 79.58 at the end of June, 2012 from 79.28 of the previous month.

Subscription in urban areas increased from 621.21 million in May, 2012 to 621.76 million at the end of June, 2012. Subscription in rural areas increased from 339.69 million to 343.76 million during the same period. The monthly growth rate of urban and rural subscription is 0.09 per cent and 1.20 per cent, respectively. The overall urban tele-density has decreased from 169.17 to 169.03 and rural tele-density increased from 40.21 to 40.66.

By 2019, the total number of telephone subscribers in India had reached 1195.24 million as on 30 September 2019. The number of wireless subscribers were 1173.75 million and the number of wireline subscribers are 21.49 million. The country's telecom regulator is Telecom Regulatory Authority of India (TRAI)

Communication in India

Electronics and Information Technology is one of the fastest growing segments of the Indian Industry. Along with the liberalisation in foreign investment and export-import policies, this sector is attracting considerable interest.

Digital infrastructure and services are increasingly emerging as key enablers and critical determinants of a country's growth and well-being. With significant capabilities in both telecommunications and software, India, more than most countries, stands poised to benefit from harnessing new digital technologies and platforms to unlock productivity, as well as to reach unserved and underserved markets; thus catalysing economic growth and development, generating new- age jobs and livelihoods, and ensuring access to next generation services for its citizens.

Digital India is already unfolding. India's digital profile and footprint is one of the fastest growing in the world. With over a billion mobile phones and digital identities and half a billion internet users, India's mobile data consumption is already the highest in the world. Over 200 million Indians regularly use social media and in the last year alone, over 200 million Indians took to mobile banking and digital payments. At the current pace of digitisation and digitalisation, it is estimated that India's digital economy has the potential to reach one trillion USD by 2025. The rapid and unprecedented proliferation of the mobile phone, the internet, social media platforms, and the rapid expansion of digital payments, data consumption and generation across India indicate that the data economy and digital technologies and services are no longer the prerogative of the privileged few; but that they have indeed evolved into widespread instruments of access and empowerment for more than a billion Indians.

The National Digital Communications Policy, 2018 seeks to unlock the transformative power of digital communications networks - to achieve the goal of digital empowerment and improved well-being of the people of India; and towards this end, attempts to outline a set of goals, initiatives, strategies and intended policy outcomes.

The National Communications Policy aims to accomplish the following Strategic Objectives by 2022:

- Provisioning of Broadband for all
- Creating 4 Million additional jobs in the Digital Communications sector
- Enhancing the contribution of the Digital Communications sector to 8% of India's GDP from ~ 6% in 2017
- Propelling India to the Top 50 Nations in the ICT Development Index of ITU from 134 in 2017
- Enhancing India's contribution to Global Value Chains
- Ensuring Digital Sovereignty

Check Your Progress

4. What does the National Digital Communications Policy, 2018 seek to unlock?
5. What are emerging as key enablers and critical determinants of a country's growth and well-being?

4.4 COMPOSITION AND DIRECTION OF INDIA'S FOREIGN TRADE

A country's trade policy refers to the set of policies which govern the external sector of its economy. In a country like India, trade policy is one of the many economic instruments which is used to suit the requirements of economic growth. The main objectives of India's trade policy have been to promote exports and restrict the level of imports to the level of foreign exchange available to the government. During the middle of the Second Plan, the importance of exports in the context of developmental planning was first recognized.

The role of foreign trade in the national economy can be adjudged by the proportion of foreign trade to national income. As a proportion of national income, exports were about 8 per cent in 1951–52 which fell to 4.4 per cent in 1971–72 but rose again to around 8 per cent in the 1970s and 1980s due to faster growth of exports. Imports as a percentage of national income have also declined from 10.7 per cent in 1951-52 to 4.9 per cent in 1971-72 but stood at 9–10 per cent in the 1970s.

In 1993-94, exports as a percentage of national income stood at 8.7 per cent while the corresponding percentage for imports was 9.1 per cent. This data signifies that, first, now India is less dependent on the world economy than it was in the earlier decades. From the year 1951-1990, world trade grew at a faster rate than that of India's trade. The declining share in world trade is a common phenomenon for all developing countries which implies thereby that world trade has only benefited the developed countries and not others.

Trade Philosophy

First, the export philosophy was designed with a view to conserve the limited supplies of some essential commodities for domestic consumption and hence their exports were restricted. Second, export of certain goods which are of strategic importance like defence goods are prohibited. Third, exports to certain countries like South Africa and East Africa are not permitted for political reasons. India has aimed at the promotion of exports, keeping in view the limitations so that sufficient foreign exchange is available to pay for the requisite imports and also for facilitating the servicing of foreign debt and for building a buffer stock of reserves.

Import policy is an adjunct to the export policy and both are broadly coordinated so as to keep the receipts and payments in balance. While the export policy aims at the promotion of exports, the import policy encourages import substitution so that there is minimum withdrawal of foreign exchange reserves.

Import controls aim at restricting unwanted import of goods to conserve the limited foreign exchange reserves. Of the imports permitted, capital goods that are not produced at home, and raw materials are prioritized. Of the rest, priority among imports is assigned to food grains, scarce consumer goods like oils, sugar, etc., or to agricultural inputs like fertilizers. A substantial chunk of our import bill is accounted for by crude oil and petroleum, imports of which cannot be dispensed due to inadequate supplies here. Import controls are widespread in India and both tariff and non-tariff barriers are used to control imports. A licence is required for any item of export or import unless it is specifically permitted under the 'Open General Licence' category of items.

Framework of Trade

Before Independence, India had trade surpluses and there was regular gold inflow into the account to pay for the surplus. But almost the whole of trade was

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concentrated in the hands of British companies, and foreign shipping lines facilitated British colonial interests rather than Indian interests. But during the war period, India accumulated huge sterling balances due to the surplus on trade account and war supplies to the United Kingdom. The war-time controls on trade were regularized later by passing The Import and Export (Control) Act of 1947 as 'Controlled' trade became the order of the day in the post-war period. Protection granted to the Indian companies necessitated a wide network of controls on trade. With the inception of planning in 1951, the trade policy had shifted its emphasis from a positive trade balance to the immediate needs of development according to the priorities of the plan. Both imports and exports were low during 1951–56, due to the prevailing trade controls. But some export promotion councils and commodity boards were set up, export quotas were increased, and the export policy in general was liberalized. During the Second Plan 1956-61, in addition to export promotion, import substitution was also pursued. Import restrictions were tightened and a policy of imports on a deferred payment basis was initiated and an institutional framework for exports was strengthened by setting up of a Foreign Trade Board in 1957 which was later replaced by the Board of Trade in 1962. Nineteen Export Councils with an apex body federation of the export organizations and seven Commodity Boards were set up. Seven Development Councils were also organized to promote the export of heavy and light electrical, leather goods, art silk, drugs, and some non-traditional items.

During the Third Plan period (1961–66), the export promotion programme was further strengthened in terms of the institutional structure, incentives, and other policy measures. The Mudaliar Committee (1965) recommended that a selective approach should be adopted in respect of export incentives, fixation of minimum and maximum prices, quality controls, inspection, etc., designed to promote exports as a long-term strategy.

The institutional support to export promotion was strengthened during the tenure of the Fourth to Sixth Plan period. The Trade Development Authority (TDA) was set up to help the medium and small-scale entrepreneurs to develop their export potential. Package assistance was provided to them by TDA, starting with market information and extending up to the execution of export orders. Similar assistance was provided to small scale entrepreneurs by the State Trading Corporation of India Ltd. (STC) under a single window. It should be noted here that STC and MMTC are canalizing agencies for a number of import and export items and have been entrusted with export promotion activities.

Structural Changes in India's Foreign Trade Policy

The structural changes as made in the trade policy of India since Independence can be accounted for by the following factors:

(a) Change of hands from foreign nationals to Indian nationals in respect of the export houses, industrial houses, and companies.

(b) British and foreign shipping were replaced by Indian shipping lines. The importance of foreign shippers has declined in India's trade.

(c) Banking and insurance have been taken over by Indian hands and have since been nationalized in the interest of the country.

(d) Industrialization in the country and the diversification of our industrial base has led to diversification in the trade pattern. Despite the importance of agriculture in our economy, growth of industrialization in the post-war period had brought about some structural changes in the trade pattern, both in exports and imports.

Exim (Foreign Trade) Policy

In pursuance of its liberalization programme launched in 1991 with the introduction of the New Industrial Policy and other economic trade reforms, the government extended the validity of the Policy from three years to five years with the announcement of the five-year long Export-Import Policy, on 31 March 1992, coinciding with the Eighth Five Year Plan (1992–97). The basic objective of a five-year policy was two-fold. It reflects the priorities for development of the economy as set out in the five-year plans. The third five-year EXIM Policy (2002–07) which coincided with the Tenth Five Year Plan, and which was valid up to March 2007, was terminated mid-length and replaced with the Foreign Trade Policy with effect from August 2004 up to 31 March 2009 on the assumption of power by the UPA Government. The current Foreign Trade Policy (2015–20) in force is effective from 1 April 2015 up to 31 March 2020.

Exim policy or foreign trade policy is a set of guidelines and instructions in matters related to the imports and exports of good, in India.

AIMS and Objectives

The country witnessed a robust growth in exports in the last five years mainly on account of the twin objectives, set out in the first Foreign Trade Policy 2004–09, namely (i) to double the country's percentage share of global merchandise trade within five years, and (ii) use trade expansion as an effective instrument of economic growth and employment generation. The exports in the past years registered more than two-fold increase from USD 63 billion in 2003-04 to USD 168 billion in 2008-09, thereby increasing our share in global merchandise trade to 1.45 per cent in 2008 from 0.83 per cent in 2003 (WTO estimates). Our share of global commercial services exports too rose from 1.4 per cent to 2.8 per cent during the same period. On the employment front, nearly 14 million jobs were created directly or indirectly as a result of augmented exports during the period.

The year 2009, however, witnessed one of the most severe global recessions in the post-war period which affected almost all the countries and hitting all the major economic indicators of industrial production, trade, capital flows, unemployment, per capita investment and consumption. Consequently, the WTO and the IMF have estimated a projected global trade decline by 9 per cent and over 11 per cent in volume terms. India has not been an exception to the unprecedented economic slow-down faced by the entire world.

To arrest and reverse the declining trend of exports and to provide additional support especially to those sectors which have been hit badly by recession in the developed world, and also to double our share in global trade by 2020, the Foreign

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Trade Policy 2009 –14 came up with short term and long-term objectives. The short-term objective of the Policy was to achieve an annual export growth of 15 per cent with an annual export target of USD 200 billion by March 2011, while for the remaining three years, i.e. up to 2014 the annual export growth of 25 per cent per annum had been envisaged. Besides, it was expected to double our exports of goods and services by 2014. The long-term objective of the Policy was to double India's share in global trade by 2020.

To meet these objectives of achieving the projected target, a mix of the following policy measures would be adopted by the government:

- Fiscal incentives
- Institutional changes
- Procedural rationalization
- Enhanced market access across the world and diversification of export markets
- Improvement in infrastructure related to exports
- Bringing down transaction costs
- Providing full refund of all indirect taxes and levies
- Goods and Services Tax (GST) to rebate all indirect taxes and levies on exports

Major Changes in the Foreign Trade Policy, 2009–14

- DEPB (Duty Entitlement Pass Book) Scheme to continue up to December 2010.
- Income tax benefits under Section 10(A) for IT industry and under Section 10(B) for 100 per cent EoUs extended till 31 March 2011.
- Enhanced insurance coverage and exposure for exports through ECGC schemes ensured till 31 March 2010.
- Interest subvention scheme to continue.
- 15 per cent value addition stipulated on imported inputs under Advance Authorization to encourage value addition in manufactured exports.
- Enhancement of incentive rates for exports to emerging markets of Africa, Latin America, Oceania and CIS countries. Duty credit scrips for FMS increased from 2.5 per cent to 3 per cent and for FPS from 1.25 per cent to 2per cent.
- Additional resources made available under the MDA and MAI schemes.
- Six or more 'Made in India' shows to be organized across the world every year to promote Brand India.
- For the first time EPCG at Zero Duty introduced for certain sectors (engineering and electronic products, basic chemicals and pharmaceuticals, apparels and textiles, plastics, handicrafts, chemicals and allied products and leather and leather products) to facilitate technology upgradation for exporters to be globally competitive.

- Status holders to import capital goods duty free (through Duty Credit Scrips equivalent to 1 per cent of their FOB value of exports in previous year) of specified product groups.
- Additional focused support and incentives to units in 'Towns of Export Excellence' for upgradation of export infrastructure.
- Encouragement to production and export of 'green products' through measures such as phased manufacturing programme for green vehicles, zero-duty EPCG scheme, and incentives for exports.
- Setting up of the Directorate of Trade Remedy Measures to facilitate MSMEs in availing their rights through trade remedy instruments under the WTO framework.
- Reduction in the transaction cost and institutional bottlenecks.
- Time-bound implementation of e-trade projects.
- EDI to be extended to additional ports/locations.
- Inter Ministerial Committee to serve as a single window mechanism for resolution of trade-related grievances.

Highlights of the Foreign Trade Policy, 2009–14

1. Higher support for market and product diversification

- Twenty-six new markets have been added under the Focus Market Scheme. These include sixteen new markets in Latin America and ten in Asia-Oceania.
- The incentive available under the Focus Market Scheme (FMS) and the Focus Product Scheme (FPS) raised from 2.5 – 3 per cent and from 1.25 –2 per cent respectively.
- A large number of products from various sectors have been included for benefits under the FPS. These include engineering products (agricultural machinery, parts of trailers, sewing machines, hand tools, garden tools, musical instruments, clocks and watches, railway locomotives, etc.), plastic (value-added products), jute and sisal products, technical textiles, green technology products (windmills, wind turbines, electric-operated vehicles, etc.), project goods, vegetable textiles and certain electronic items.
- The Market Linked Focus Product Scheme (MLFPS) has been greatly expanded by inclusion of products classified under as many as 153 ITC (HS) Codes at 4-digit level. Some major products include pharmaceuticals, synthetic textile fabrics, value-added rubber products, value-added plastic goods, textile made-ups, knitted and crocheted fabrics, glass products, certain iron and steel products and certain articles of aluminium, among others. Benefits to these products will be provided, if exports are made to thirteen identified markets (Algeria, Egypt, Kenya, Nigeria, South Africa, Tanzania, Brazil, Mexico, Ukraine, Vietnam, Cambodia, Australia and New Zealand).
- MLFPS benefits are also extended for export to additional new markets for certain products. These products include auto components, motor cars, bicycle and its parts and apparels, among others.

- A common simplified application form has been introduced for taking benefits under FPS, FMS, MLFPS and VKGUY.
- Higher allocation for Market Development Assistance (MDA) and Market Access Initiative (MAI) schemes is being provided.

2. Technological upgradation

- To aid technological upgradation of our export sector, the EPCG Scheme at Zero Duty had been introduced. This Scheme was available for engineering and electronic products, basic chemicals and pharmaceuticals, apparels and textiles, plastics, handicrafts, chemicals and allied products and leather and leather products (subject to exclusions of current beneficiaries under the Technological Upgradation Fund Schemes (TUFS), administered by the Ministry of Textiles and beneficiaries of the Status Holder Incentive Scheme in that particular year).

3. Towns of export excellence

- Jaipur, Srinagar and Anantnag have been recognized as 'Towns of Export Excellence' for handicrafts; Kanpur, Dewas and Ambur have been recognized as 'Towns of Export Excellence' for leather products; and Malihabad for horticultural products.

4. EPCG scheme relaxations

- To increase the life of existing plant and machinery, export obligation on import of spares, moulds, etc. under the EPCG Scheme, has been reduced to 50 per cent of the normal specific export obligation.
- Taking into account the decline in exports, the facility of Re-fixation of Annual Average Export Obligation for a particular financial year in which there is decline in exports from the country, had been extended for the five-year policy period 2009 –14.

5. Support for green products and products from the North East

- The Focus Product Scheme benefit extended for export of 'green products'; and for exports of some products originating from the North East.

6. Status holders

- To accelerate exports and encourage technological upgradation, additional duty credit scrips shall be given to status holders at the rate of 1 per cent of the FOB value of past exports. The duty credit scrips can be used for procurement of capital goods with Actual User condition. This facility shall be available for sectors of leather (excluding finished leather), textiles and jute, handicrafts, engineering (excluding iron and steel and non-ferrous metals in primary and intermediate forms, automobiles and two-wheelers, nuclear reactors and parts, and ships, boats and floating structures), plastics and basic chemicals (excluding pharma products) [subject to exclusions of current beneficiaries under Technological Upgradation Fund Schemes (TUFS)]. This facility was available till 31 March 2011.

- Transferability for the duty credit scrips being issued to status holders under VKGUY Scheme has been permitted. This is subject to the condition that transfer would be only to status holders and scrips would be utilized for the procurement of cold chain equipment only.

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7. Stability/continuity of the Foreign Trade Policy

- To impart stability to the Policy regime, Duty Entitlement Passbook (DEPB) Scheme was extended beyond 31 December 2009 till 31December 2010.
- Interest subvention of 2 per cent for pre-shipment credit for seven specified sectors had been extended till 31 March 2010 in the Budget 2009-10.
- Income tax exemption to 100 per cent EOUs and to STPI units under Section 10B and 10A of the Income Tax Act, had been extended for the financial year 2010-11 in the Budget 2009-10.
- The Adjustment Assistance Scheme initiated in December 2008, to provide enhanced ECGC cover at 95 per cent to the adversely affected sectors, was continued till March 2010.

8. Sector-specific initiatives

(i) Marine sector

- Fisheries had been included in the sectors which are exempted from maintenance of average EO under the EPCG Scheme, subject to the condition that fishing trawlers, boats, ships and other similar items shall not be allowed to be imported under this provision. This would provide a fillip to the marine sector which had been affected by the present downturn in exports.
- Additional flexibility under the Target Plus Scheme (TPS)/Duty Free Certificate of Entitlement (DFCE) Scheme for status holders has been given to the marine sector.

(ii) Gems and jewellery sector

- To neutralize duty incidence on gold jewellery exports, it has now been decided to allow duty drawbacks on such exports.
- In an endeavour to make India an international trading hub in diamonds, it is planned to establish 'Diamond Bourse(s)'.
- A new facility to allow import on consignment basis of cut and polished diamonds for the purpose of grading/certification purposes has been introduced.
- To promote the export of gems and jewellery, the value limits of personal carriage had been increased from US$ 2 million to US$ 5 million in case of participation in overseas exhibitions. The limit in case of personal carriage, as samples, for export promotion tours, had also been increased from US$ 0.1 million to US$ 1 million.

(iii) Agriculture sector

- To reduce transaction and handling costs, a single window system to facilitate export of perishable agricultural produce had been introduced.

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The system will involve creation of multi-functional nodal agencies to be accredited by the APEDA.

(iv) Leather sector

- Leather sector was allowed re-export of unsold imported raw hides and skins and semi-finished leather from public bonded warehouses, subject to payment of 50 per cent of the applicable export duty.
- Enhancement of FPS rate to 2 per cent would also significantly benefit the leather sector.

(v) Tea

- Minimum value addition under advance authorization scheme for export of tea had been reduced from the existing 100 – 50 per cent.
- DTA sale limit of instant tea by EOU units has been increased from the existing 30 – 50 per cent.
- Export of tea has been covered under the VKGUY Scheme benefits.

(vi) Pharmaceutical sector

- The export obligation period for advance authorizations issued with 6-APA as input had been increased from the existing six months to thirty-six months, as is available for other products.
- The pharma sector extensively covered under the MLFPS for countries in Africa and Latin America; some countries in Oceania and Far East.

(vii) Handloom sector

- To simplify claims under FPS, the requirement of 'Handloom Mark' for availing benefits under FPS had been removed.

9. EOUs

- EOUs were allowed to sell products manufactured by them in DTA upto a limit of 90 per cent instead of the existing 75 per cent, without changing the criteria of 'similar goods', within the overall entitlement of 50 per cent for DTA sale.
- To provide clarity to the customs field formations, DOR issued a clarification to enable procurement of spares beyond 5 per cent by granite sector EOUs.
- EOUs will be allowed to procure finished goods for consolidation along with their manufactured goods, subject to certain safeguards.
- During this period of downturn, the Board of Approvals (BOA) to consider, extension of block period by one year for calculation of the net foreign exchange earning of EOUs.
- The EOUs will now be allowed CENVAT credit facility for the component of SAD and Education Cess on DTA sale.

10. Thrust to value-added manufacturing

- To encourage value-added manufactured export, a minimum 15 per cent value addition on imported inputs under the Advance Authorization Scheme has now been prescribed.

- Coverage of project exports and a large number of manufactured goods under the FPS and the MLFPS.

11. DEPB

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- The DEPB rate shall also include factoring of custom duty component on fuel where fuel is allowed as a consumable in standard input-output norms.

12. Flexibility provided to exporters

- Payment of customs duty for Export Obligation (EO) shortfall under Advance Authorization/DFIA/EPCG Authorization has been allowed by way of debit of duty credit scrips. Earlier, the payment was allowed in cash only.
- Import of restricted items, as replenishment, shall now be allowed against transferred DFIAs, in line with the erstwhile DFRC scheme.
- Time limit of sixty days for re-import of exported gems and jewellery items, for participation in exhibitions has been extended to ninety days in case of USA.
- Transit loss claims received from private approved insurance companies in India will now be allowed for EO fulfilment under the export promotion schemes. At present, the facility has been limited to public sector general insurance companies only.

13. Waiver of incentives recovery on RBI specific write-off

- In cases, where the RBI specifically writes off the export proceeds realization, the incentives under the FTP shall now not be recovered from the exporters subject to certain conditions.

14. Simplification of procedures

- To facilitate duty-free import of samples by exporters, the number of samples/ pieces has been increased from the existing 15 – 50. Customs clearance of such samples shall be based on declarations given by the importers with regard to the limit of value and quantity of samples.
- To allow exemption for up to two stages from payment of excise duty in lieu of refund, in case of supply to an advance authorization holder (against invalidation letter) by the domestic intermediate manufacturer. It would allow exemption for supplies made to a manufacturer, if such manufacturer in turn supplies the products to an ultimate exporter. At present, exemption is allowed up to one stage only.
- Greater flexibility has been permitted to allow conversion of shipping bills from one export promotion scheme to another scheme. Customs shall now permit this conversion within three months, instead of the present limited period of only one month.
- To reduce transaction costs, dispatch of imported goods directly from the port to the site has been allowed under the Advance Authorization Scheme for deemed supplies. At present, the duty-free imported goods could be taken only to the manufacturing unit of the authorization holder or its supporting manufacturer.

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- Disposal of manufacturing wastes/scrap will now be allowed after payment of applicable excise duty, even before fulfilment of export obligation under the Advance Authorization and EPCG Scheme.
- Regional authorities have now been authorized to issue licence for import of sports weapons by 'renowned shooters', on the basis of NOC from the Ministry of Sports and Youth Affairs. Hence, there will be no need to approach the DGFT (Hqrs.) in such cases.
- The procedure for issue of Free Sale Certificate has been simplified and the validity of the certificate has been increased from 1 – 2 years. This will solve the problems faced by the medical devices industry.
- Automobile industry, having their own R&D establishment, would be allowed free import of reference fuels (petrol and diesel), up to a maximum of 5 KL per annum, which are not manufactured in India.
- Acceding to the demand of trade and industry, the application and redemption forms under EPCG scheme have been simplified.

15. Reduction of transaction costs

- No fee shall now be charged for granting incentives under the schemes. Further, for all other authorizations/licence applications, the maximum applicable fee is being reduced to ₹ 100,000 from the existing ₹ 1,50,000 (for manual applications) and ₹ 50,000 from the existing ₹75,000 (for EDI applications).
- To further EDI initiatives, export promotion councils/commodity boards have been advised to issue RCMC through a Web-based online system.
- Electronic message exchange between customs and DGFT in respect of incentive schemes have become operational by 31 December 2009. This will obviate the need for verification of scrips by customs facilitating faster clearances.
- For EDI ports, with effect from December 2009, double verification of shipping bills by customs for any of the DGFT schemes shall be dispensed with.
- In cases, where the earlier authorization has been cancelled and a new authorization has been issued in lieu of the earlier authorization, application fee paid already for the cancelled authorization will now be adjusted against the application fee for the new authorization subject to payment of minimum fee of ₹ 200.
- An inter-ministerial committee will be formed to redress/resolve problems/ issues of exporters.
- An updated compilation of Standard Input Output Norms (SION) and ITC (HS) Classification of Export and Import Items has been published.

16. Directorate of 'Trade Remedy Measures'

- To enable support to Indian industry and exporters, especially the MSMEs, in availing their rights through trade remedy instruments, a 'Directorate of Trade Remedy Measures' shall be set up.

Foreign Trade Policy (FTP) 2015-20

The Foreign Trade Policy (FTP) 2015-20 was unveiled by the Government of India on April 1, 2015. Following are the highlights of the FTP:

- FTP 2015-20 provides a framework for increasing exports of goods and services as well as generation of employment and increasing value addition in the country, in line with the 'Make in India' programme.
- The Policy aims to enable India to respond to the challenges of the external environment, keeping in step with a rapidly evolving international trading architecture and make trade a major contributor to the country's economic growth and development.
- FTP 2015-20 introduces two new schemes, namely 'Merchandise Exports from India Scheme (MEIS)' for export of specified goods to specified markets and 'Services Exports from India Scheme (SEIS)' for increasing exports of notified services.
- Duty credit scrips issued under MEIS and SEIS and the goods imported against these scrips are fully transferable.
- For grant of rewards under MEIS, the countries have been categorized into 3 Groups, whereas the rates of rewards under MEIS range from 2 per cent to 5 per cent. Under SEIS the selected Services would be rewarded at the rates of 3 per cent and 5 per cent.
- Measures have been adopted to nudge procurement of capital goods from indigenous manufacturers under the EPCG scheme by reducing specific export obligation to 75per cent of the normal export obligation.
- Measures have been taken to give a boost to exports of defense and hi-tech items.
- E-Commerce exports of handloom products, books/periodicals, leather footwear, toys and customised fashion garments through courier or foreign post office would also be able to get benefit of MEIS (for values up to INR 25,000).
- Manufacturers, who are also status holders, will now be able to self-certify their manufactured goods in phases, as originating from India with a view to qualifying for preferential treatment under various forms of bilateral and regional trade agreements. This 'Approved Exporter System' will help manufacturer exporters considerably in getting fast access to international markets.
- A number of steps have been taken for encouraging manufacturing and exports under 100 per cent EOU/EHTP/STPI/BTP Schemes. The steps include a fast track clearance facility for these units, permitting them to share infrastructure facilities, permitting inter unit transfer of goods and services, permitting them to set up warehouses near the port of export and to use duty free equipment for training purposes.
- 108 MSME clusters have been identified for focused interventions to boost exports. Accordingly, 'Niryat Bandhu Scheme' has been galvanised and repositioned to achieve the objectives of 'Skill India'.

- Trade facilitation and enhancing the ease of doing business are the other major focus areas in this new FTP. One of the major objectives of new FTP is to move towards paperless working in 24x7 environment.

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Check Your Progress

6. What do you understand by a country's trade policy?
7. What does import controls aim at?
8. Which towns have been recognized as 'Towns of Export Excellence'?

4.5 BALANCE OF PAYMENT

No country is self-sufficient and the interdependence of countries is reflected in the international economic and commercial transactions. An economic transaction is an exchange of value or transfer of a title to a good or an asset. A commercial transaction refers to the exchange of a good or service for money which results in the payment of currency or monetary assets, thus leading to financial flows. Resource flows from one country to another due to the purchase and sale of financial claims, are referred to as financial transactions. The international exchange of goods for goods, services for services, and goods and services for money are all referred to as international economic and commercial transactions.

Balance of payments of a country has been defined as a 'systematic record of all economic transactions between the residents of the reporting country and residents of foreign countries. It includes both visible and invisible transactions'.

The fundamental reason why foreign trade benefits an economy is due to the so-called principle of comparative advantage. If different countries concentrate on providing products and services in which they have comparative advantages arising out of differences in resources, costs, or technology, then international trade can be beneficial to all the countries, across the world. Positively concluding that international trade benefits an economy, the question of external receipts and payments has to be considered. It is customary to classify a country's external receipts and payments under two broad headings, Current account and Capital account.

The current account is split under two heads—merchandise trade and invisibles. Of the two, merchandise trade comprises export and import of goods. The difference between the two is commonly referred to as the surplus or deficit trade balance. It is customary to report imports on CIF (Cost, Insurance, and Freight) and exports on an FOB (Free On Board) basis for calculating the trade balance.

Invisibles comprise current international payments for items other than merchandise exports or imports. Some of the more important items under the head 'invisibles' comprise travel, transportation, interest and dividend payments, etc. Merchandise trade and invisibles together comprise the current account of a country and the difference gives the current account surplus or deficit.

Transfers on capital account include external borrowings or repayments of external borrowings, external investments or disinvestments, etc. The balance on current account and capital together result in the country's reserves of foreign exchange going up or down correspondingly. A current account deficit may be combined with a higher capital account surplus (i.e. external borrowings in excess of repayments). It therefore reflects as an addition to the country's reserves of foreign exchange. Conceptually and arithmetically, the net difference between the current and capital accounts must compensate the movement in reserves. The balance of payments statistics of a country generally include a compensating term 'statistical discrepancy' or 'errors and omissions'.

The current account deficit or surplus of a country can also be looked at in another way. In macroeconomics, national accounting terms the current account as a mirror image of the difference between domestic savings and domestic investments. If domestic savings exceed domestic investments, a surplus on current account gets created.

This accounting identity arises because of the manner in which the Gross National Product (GNP) of a country is calculated. GNP calculations can be made either by following the 'flow of product' approach or by the 'earnings and cost' approach. The former method includes an item termed 'foreign investment', being the excess of exports of goods and services over imports. In national accounting terms, the GNP of a country by both approaches has to be identical. Starting with this equation, it is easy to establish the accounting identity between the balance on current account and the gap between domestic savings and domestic investments.

The items included in the balance of payments of any country are payments for merchandise imports and receipts for merchandise exports, loans to and investments in foreign countries and enterprises, foreign investments in domestic enterprises, borrowings from foreign countries, tourist expenditures—both by domestic tourists abroad and foreign countries, tourist expending country, money paid to foreign carriers, and receipts for foreign goods carried in national bottoms, cable and telegraph payments to foreign banks, expenses on foreign embassies established in the home country, interest and dividend payments, and other similar items. The two sides of a balance of payments must always balance, i.e., payments to be made to outsiders must equal the receipts from outsiders. The reason is to be found in the simple fact that for everything one gets, he can expect to receive something in return. Ordinarily, balance of payments is prepared for a period of one year, but a quarterly balance of payments is also common.

The main purpose of balance of payments is to inform the government of the international position of the nation and to help it in its formulation of monetary, fiscal, and trade policies. Like GDP (Gross Domestic Product), a nation's balance of payments is a system that accounts for the flow of income and expenditures. Unlike GDP, however, balance of payments includes the flow of financial assets. Governments also regularly consult the balance of payments of important trade partners for making policy-decisions. The information contained in a nation's balance of payments is indispensable to banks, firms, and individuals directly or indirectly involved in international trade and finance.

Monetary authorities of the reporting country should know the receipts and payments as between the reporting country and others so as to assess the impact of such flows on domestic money supply and on the savings of the economy. Besides, economists use this data to study the impact of foreign transactions on the national income of the reporting country—their impact on the current income and expenditure (current account) and on the assets and liabilities of the country (capital side).

The monetary and fiscal policies and the foreign exchange policy are formulated or reformulated on the basis of this data. It can thus be concluded that the balance of payments data is very useful from the point of view of formulation and operation of the domestic economic policy.

Features of the Balance of Payments

The features of the balance of payments need to be described in this regard.

1. Economic transactions

The statement is a summary of the economic transactions of the country with the outsiders. An economic transaction arises when values are exchanged or moved between nations. These may arise due to the following:

(i) Movement of goods in the form of exports and imports
(ii) Rendering services abroad and using foreign services
(iii) Gifts/grants from one country to another
(iv) Investments made abroad or received from abroad
(v) Income on investments received from abroad or remitted abroad
(vi) Increase or decrease in the international reserves of the country

Transactions between residents and non-residents

Generally, transactions which take place between the residents of a country with the residents of other countries are recorded in the balance of payments. Residents may refer to the individuals, institutions, corporate bodies, government departments, etc., domiciled in the country. Units or branches of multinational companies domiciled in the country are also known as residents and their transactions with their parent or branches abroad are reflected in the balance of payments. If the economic transaction is between residents only, it is not included in the balance of payments. For instance, the sale of gold in the domestic market will not find a place in the balance of payments. There are, however, certain exceptions to the resident–non-resident basis of balance of payments. If the gold is sold to the central bank of the country, the monetary gold of the country increases. It appears in the balance of payments. Similarly, foreign assets exchanged between residents may be included in the balance of payments.

2. A flow statement

A balance of payments is a compilation of the flow of economic transactions of the country during the period and not a statement of the position as on a particular date. It is more like the funds flow statement of a company, rather than a balance sheet. For instance, if the balance of payments shows US $400 million as a plus in the non-resident deposits, it means the balances held by the non-residents of the country with banks in India has changed during the period by US $400 million; it does not mean that the aggregate of such balances is US $400 million.

3. Periodicity

Normally, the balance of payments statement is prepared covering a period of one year. However, depending upon the requirement of the government, the statement may be prepared for shorter periods also such as six months, a quarter or even a month.

4. Components

The balance of payments statement consists of three major components:

(i) Current account
(ii) Capital account
(iii) Official reserves account

Earlier, the balance of payments used to be divided into two accounts– current account and capital account. The present trend is to divide the capital account further into two accounts and show the details of the official reserves account separately.

5. Current Account

The current account of the balance of payments refers to the transactions pertaining to goods and services, income, and current transfers. In other words, it covers all transactions between residents and non-residents, and other financial items.

6. Merchandise Trade

Item (I) in the statement, merchandise, represents the export and import of commodities from/into India. The credit item represents exports and the debit item represents imports. The net balance, being the difference between exports and imports is known as the *balance of trade*.

The values of exports are shown at FOB prices, i.e., excluding the cost of transportation from abroad. Imports represent CIF payment, i.e., including freight and insurance paid for imports. However, where freight and insurance on imports are paid separately to foreigners, these are included under 'transportation' and 'insurance'.

7. Invisible

This item includes service, transfers, and investment income. It is titled invisible to distinguish it from merchandise trade, also known as visible trade.

Travel covers all the receipts and payments on account of international transportation services except for the freight on imports invoiced CIF/CFR as included under import payments. The credits include expenses of foreign transport companies in India, receipt of foreign earnings of Indian transport companies and other receipts. The debits include expenses of Indian companies abroad, payments to foreign transport companies, etc.

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Government is related to the receipts and payments on government account which is not included elsewhere as well as receipts and payments on account of maintenance of embassies and diplomatic mission and offices of international institutions such as UNO, WHO, etc. Credits include the allocations made to the US embassy expenditure in India out of the rupee proceeds of sales in India, of the surplus US agricultural commodities as under the PL 480 agreement.

Miscellaneous items as included under this refer to the receipts and payments with respect to services like agency services, professional services, technicians, subscription for periodicals, royalties, etc.

Transfers of payments, also known as unilateral transfers refer to the receipts and payments without a *quid pro quo*. The items included under this are aid and grants received from foreign governments, repatriation of savings, remittances for family maintenance, migrants' transfer, contributions and donations to religious organizations and charitable organizations, etc.

Investment income as included under this refer to the remittances, receipts and payments due to profits, interest, dividends, and discounts, which are inclusive of interest charges, and commitment charges on foreign loans including those from the International Monetary Fund.

Balance of payment and balance of trade

For decision-making with respect to the economic policy, it is not the absolute figure of exports/receipts or imports/payments that is required. It is the net difference between the two that is seen to be the major deciding factor for policies and procedures. Two important measures that are required for this purpose are, (i) balance of trade, and (ii) balance of payments.

The term balance of trade refers to the difference between the values of merchandise export and import and other visible items. When a country's aggregate exports are in excess of its aggregate imports, then it is said to have a favourable or positive or surplus balance of trade. In case its aggregate imports are more than its aggregate exports, there is said to be unfavourable or negative or deficit balance of trade. The exports and imports of a country can never really be equal at any given point in time so the balance of trade will never balance. It will always be either favourable or unfavourable.

Balance of payments, on the other hand, is a more comprehensive term as it not just includes the visible trade but even the invisible items. Thus, it includes not just the figure of balance of trade but also that of the balance of invisibles. Since it mostly includes the net balance of items included in the current account, it is also known on 'balance of payments on current account'. The total amounts receivable and payable in the current account will either show a positive (surplus) balance or a negative (deficit) balance.

8. Capital account

The capital account represents transfer of money and other capital items and changes in the country's foreign assets and liabilities resulting from the transactions recorded in the current account. The capital account transactions are short-term capital inflows and outflows for purposes, official purposes or banking

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purposes. Private flows of capital include private private company remittances for working capital purposes to subsidiaries or branches of foreign companies or short-term loans, grants, etc., from foreign banks, international financial institutions, foreign government. etc. These short-term flows may be for compensatory purposes on the government account. These can also be banking funds for short-term purposes.

Long-term capital movements can be private or governmental in nature. The private flows include loans and advances granted to private parties (buyer's credit), investment in shares, bonds, debentures, etc., by Indians abroad or by foreigners in India, investment in joint ventures, consultancy, turnkey projects, deferred payment credits, etc. Such flows on official account also take place through government loans, credits, grants, etc., for private long-term purposes. Foreign investment in India is the amount invested by non-residents in the equality of entities in India. The difference between direct and portfolio investment reflects the intention of the investor. Direct investment reflects a lasting interest of the investor in the entity and his intention to take active part in the management of the company.

Investments in equity by the direct investor and the amounts accruing on the original investment but retained in the country fall under the category of direct investment. Portfolio investment covers transactions in equity securities other than direct investment. The investor does not intend to take part in the management of the company. Foreign investment abroad is the amount invested by residents in entities abroad.

Loans comprise external assistance, commercial borrowings, and short-term loans. External assistance refers to the borrowings from multilateral organizations like World Bank and from bilateral sources, mainly on confessional terms. Commercial borrowings are debts owed to international banks, borrowings in bond markets, credits from export credit agencies, and loans provided on commercial terms by specialized multilateral or bilateral institutions like the International Finance Corporation. Short-term credit refers to credit that is repayable within one year. Banking capital covers the assets and liabilities of commercial banks, non-resident deposit accounts, and other financial institutions.

The capital account reflects the changes in foreign assets and liabilities of the country and affects its creditors/debtor position. An excess of foreign assets over foreign liabilities indicates a net creditor position and vice versa. Net changes in the current account are reflected by a corresponding and opposite change in the capital account, changing the foreign assets and liabilities position of the country. Current account is like an income and expenditure statement with surplus or deficit in it transferred to the capital account which is like a balance sheet. If all these accounts do not tally, errors and omissions are added to balance the corresponding column of balance of payments. In the economic sense, a country has a surplus or deficit in its balance of payments, when its transactions other than those merely financing the real transactions are not in balance. Those merely financing are said to be 'below the line' while others are 'above the line'. The selection of items below the line is generally decided by each country, depending upon its requirements for the economic policy in the short-run and long-run.

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The last item in the balance of payments other than 'errors and omissions' is the movement in foreign exchange reserves of the country, normally shown in the capital account. These reserves are in the form of foreign currencies, foreign assets, investments, and balances held abroad, or gold of the government, and official monetary agencies of a country.

Current Scenario of India's Balance of Payments

According to the RBI, the highlights of India's BOP during April-June 2017 were as follows:

- India's current account deficit (CAD) at US$ 14.3 billion (2.4 per cent of GDP) in Q1 of 2017-18 increased sharply from US$ 0.4 billion (0.1 per cent of GDP) in Q1 of 2016 -17 and US$ 3.4 billion (0.6 per cent of GDP) in Q4 of 2016-17.
- The widening of the CAD on a year-on-year (y-o-y) basis was primarily on account of a higher trade deficit (US$ 41.2 billion) brought about by a larger increase in merchandise imports relative to exports.
- Net services receipts increased by 15.7 per cent on a y-o-y basis mainly on the back of a rise in net earnings from travel, construction and other business services.
- Private transfer receipts, mainly representing remittances by Indians employed overseas, at US$ 16.1 billion increased by 5.3 per cent over the corresponding quarter of previous year.
- In the financial account, net foreign direct investment at US$ 7.2 billion in Q1 of 2017-18 almost doubled from its level in Q1 of 2016-17.
- Net portfolio investment recorded substantial inflow of US$ 12.5 billion in Q1 of 2017-18, primarily in the debt segment, as compared with US$ 2.1 billion in Q1 of last year.
- Net receipts on account of non-resident deposits amounted to US$ 1.2 billion in Q1 of 2017-18; this was lower than US$ 1.4 billion a year ago.
- In Q1 of 2017-18, there was an accretion of US$ 11.4 billion to the foreign exchange reserves (on BoP basis) as compared with US$ 7.0 billion in Q1 of 2016-17 and US$ 7.3 billion in the preceding quarter.

Significance of Balance of Payments

The study of balance of payments has become a matter of great interest in the recent years to businessmen, bankers, and economists. The financial statement of a bank reveals the bank's condition. Similarly, a country's balance of payments reveals its financial position vis-à-vis foreign countries. In fact, it is so important that balance of payments is considered to be an economic barometer of a country's health. It can furnish the key to understanding a country's economic problems. It is of great value in forecasting a country's business and economic conditions as well.

Accounting of Balance of Payments

Balance of payments is kept on a double entry book-keeping system with credits and debits of equal size. For every transaction, there is a corresponding entry on both the credit and the debit sides. Thus, if exports are made, there will be an entry of credit for outflow of goods on current account, and a corresponding entry of debit will be made for claim on a foreign company or country or increase in foreign assets or claims on foreigners. Similarly, imports will appear as a debit item for the inflow of goods, and the credit item, for which the payment is made, is shown by an increase in foreign liabilities, reduction of foreign assets or outflow of funds or claims. Thus, for every credit/debit entry on current account, there is a corresponding entry on capital account to match the former. In cases of unilateral transfers such as gifts and donations, there is no corresponding payment or change in assets or liabilities. The entries are donations or gifts on the debit side; for the credit, they are the flow of goods from out of the country. It is not always possible to match all debits with credits due to differences in sources and timing of events. A discrepancy might then arise, necessitating a balancing entry, namely, errors and omissions.

Source of Compilation

In case of countries that do not have exchange controls, statistical recording of balance of payments data is done by the government with the help of their statistical office. This in turn depends upon a host of private and government agencies, banks and companies. Each member country of the IMF (International Monetary Fund) is compiling this data for onward transmission to the fund and for their own records and use. In view of the crucial importance of such data for policy-making, planning, compilation and timely availability, balance of payments are considered to be of utmost importance.

The usual sources of compilation for any country are the government agencies and the monetary authorities of the country. The data is collected either on a statutory basis or on a voluntary basis from various private and government agencies, airways, ports, banks and financial institutions where exchange controls operate.

In India, the data is more easily available with the agencies entrusted with the operation of exchange controls, such as the monetary authority of the country and the banks.

Limitations in Compilation

A few limitations in the process of compilation of balance of payments are as follows:

(a) Not all transactions are reported through official channels, particularly those where there are no exchange and trade transactions.

(b) A time-lag between an actual transaction and its reporting is possible, thus, the balance of payments may not properly record the transactions during the period.

(c) There could be under-invoicing or over-invoicing of goods and services, thus, they may not represent the true value of gain or loss to the country.

(d) Sufficient details of all transactions are not available in certain cases, as, for example, in remittances, short-term capital inflows or outflows, gifts, and samples, particularly in respect of services or invisible items.

Errors and omissions are a major component of the balance of payments. If such limitations are substantial then it is fully possible that debits and credits may not tally during a particular period of time.

Balance of Payments Data

As referred earlier, there are continuous interactions between the domestic sectors and the foreign sectors in every country. The movements in the balance of payments influence the savings and investments in the economy and the national income and expenditure of the country. The data is useful to estimate and plan for the following:

(a) Savings gap

(b) Foreign exchange gap

(c) Investment outlays

Each of the sectors has some savings and investments and while some are net savers, others are not investors. In India, the foreign sector has been a net saver for some time and this promotes investment by other sectors of the economy. Such investment helps in the growth of income and employment in the economy. Besides, these inflows relive the balance of payments constraint (or foreign exchange gap) of the developing country. This is due to the absence of an adequate import capacity. The inadequacy of foreign exchange reserves would stand in the way of growth of income and employment of these countries. They further promote market specialization and larger scale production in the world as a whole. The data is thus useful for the formulation of savings and investment policy, planning for the growth of the economy, internal monetary policy, fiscal policy, and more so in case of the foreign exchange policy. The trends in balance of payments have repercussions on the internal and international monetary scene and influence the foreign exchange, monetary and fiscal policies of a country and the overall growth of its economy.

Mechanism of Adjustment

When entries are made on a double-entry basis, credits and debits must tally. It means that the balance of payments must always balance. But this is only in the accounting sense. In the economic sense, we need to understand the mechanism of adjustment, i.e., how are the forces operating towards balancing the inflows and the outflows of a country when there can be larger exports than imports (a positive trade balance) or larger invisible exports over imports (or a positive invisible trade balance) or a larger current account balance? Normally, a deficit in current account can be made good (if not due to statistics errors or omissions) by the outflow of monetary gold, short-term credits or a loss of foreign exchange assets or an increase in foreign exchange liabilities. If the short-term credits and inflows of funds are autonomous and not induced for financing a deficit on other accounts, then these will be a part of regular the balance of payments. Leaving aside such deliberate efforts in balancing due to induced flows of funds, the mechanism of adjustment works automatically through price changes and income changes or both.

Adjustment of Balance of Payments under the Gold Standard

A short term deficit can be met by any one or more of the following:

1. A decline in foreign balances
2. Export of gold
3. Sale of domestically held securities in an international market
4. Short-term borrowings

The first three sources are called international reserves. When the disturbances are purely temporary, they can be met by drawing upon the country's international reserves, or by borrowing.

If the deficit continues, a nation cannot go on indefinitely drawing upon its international reserves. After a relatively brief period, the country's foreign balances will fall to an irreducible minimum. Its gold reserves will approach exhaustion and the sources of finance will not be willing to extend any further loans.

The initial contraction of money supply induced by the loss of gold and the necessity of protecting the country's reserves will affect the major items in the balance of payments. The demand for goods will be reduced due to the decline in business activity; prices would fall; exports will be stimulated; imports will become less attractive; and gradually the rise in exports and the decline in imports will rectify the adverse balance of payments and a new equilibrium will be reached. With a surplus in balance of payments, the opposite mechanism would be set in motion.

Deficit Country and Surplus Country

1. Deficit country

A deficit country can adjust its deficit on a short-term basis by adopting the following measures:

1. Reduced foreign balances
2. Loss of gold
3. Higher interest rates
4. Short-term borrowings

If the deficit is to be adjusted on a long-term basis, the following measures can be adopted:

1. Higher interest rates leading to:
    (a) Decline in business activity
    (b) Reduction in incomes
2. Fall in price leading to:
    (a) Increase in exports
    (b) Decline in imports (new equilibrium)

2. Surplus country

A surplus country can adjust the surplus on a short-term basis by adopting the following measures:

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1. Increase in foreign balances
2. Inflow of gold
3. Lower interest rates
4. Short-term lending

It can adjust the surplus on a long-term basis by adopting the following measures:

1. Lower interest rates leading to:
   (a) Increase in business activity
   (b) Increase in incomes
2. Increase in prices leading to:
   (a) Decline in exports
   (b) Increase in imports (new equilibrium)

However, these adjustment processes affect the country's economy rather seriously. Modern economists and statesmen want international trade to be regulated so that the adjustment of balance of payments does not lead to fluctuations in the economy. Hence, there is a tendency on the part of most governments to regulate foreign trade.

Income Adjustment

According to Hume's law of no foreign savings, an increase in exports will increase income at home which in turn would lead to larger imports, which would balance the trade and payments. The amount by which an initial increase in exports would lead to an increase in income is called *foreign trade multiplier*—equal to 1/MPM where MPM is Marginal Propensity to import. This is the automatic adjustment process through income changes over a period of time. If the accelerator is also at work at home, then an increase in exports would lead to an increase in investment and to a further rise in income. If the foreign effects are also operating, then the original increase in exports may produce a larger increase in imports and lead to an unfavourable balance of trade or the effect will be indeterminate.

Balance of Payments: A Measurement of Deficits

The total of credits and debits in the current and capital accounts may not always balance. A surplus or deficit may take place which can be made good by a corresponding balancing entry, namely, official financing items. These items can be gold, IMF assistance or drawl on the country's foreign assets.

For the purpose of economic analysis and policy formulation, there are various types of balances arising out of credits and debits in the balance of payments. A few such balances in this regard could be, (i) trade balance; (ii) current A/c balance; (iii) basic balance; (iv) balance in regular transactions; and (v) balance settled by official transactions.

Role of Service in Balance of Payments

In the recent years, trade in services has come into greater focus for many reasons. Firstly, the comparative advantage of trade in goods has reached a certain limit in many developing countries while the need for imports and exchange earnings continue to grow. It is in this context that these developing countries have to divert their attention to the promotion of the services sector in international trade. As regards the quantum of world trade in services, the value of trade has grown enormously during the last two decades. Here, the term 'services' is defined to include all current account items other than merchandise trade and pure transfer payments. It has to be noted here that this trade in services is more concentrated in industrialized and developed countries than the trade in merchandise items, and it will take a long time before developing countries can capture any important segment of world trade in this respect.

Non-Resident Inflows

Under invisibles, a substantial inflow took place in the recent years related to the non-official flows into India. Since 1982, the government has been encouraging these inflows through higher rates of interest on non-resident rupee accounts with banks than on domestic deposits. The RBI has also kept the SLR requirements for these deposits lower, at 25 percent as against the normal requirement against domestic deposits at 31–38 per cent. Such deposits are exempt from wealth tax purposes and interest income is also exempt for income tax purposes. The rates of interest on foreign currency non-resident account were, however, kept lower than that on Indian deposits due to the lower interest rates in the markets abroad for foreign currencies.

Allocation (Or Cancellation) of Special Drawing Rights (SDRs)

The allocation or cancellation of SDRs by the IMF involves the creation or extinction of the reserve assets by the IMF which form the part of a country's holdings of official reserve assets. The allocation of SDRs result in an increase (debit) in the SDR holdings while cancellation results in a decrease (credit). The SDR holdings are a component of official reserve assets. In balance of payments, the offsetting entry to mark an increase in SDR holdings is provided by the item allocation (credit) while cancellation (debit) serves as an offsetting entry to mark a decrease in SDR holdings.

Monetization /Demonetization of Gold

Gold is both a commodity and a financial asset. When it is held by the Central Monetary Authority (in India, it is the Reserve Bank of India), as a part of its international reserves, it is treated as a financial asset and it is referred to as monetary gold. When it is held by any other party, including the government, it is treated like any other commodity. When the Central Monetary Authority acquires gold with a view to strengthen its international reserves, from a non-monetary sector, either from a resident or from a non-resident, it is referred to as monetization of gold. Demonetization refers to the reverse transfer of gold from a monetary sector to a non-monetary sector. It occurs when the Central Monetary Authority releases monetary gold from the holdings of official reserve assets for non-monetary purposes.

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Unrequired Transfers

The unrequited transfers cover gifts, grants, migrants, transfers, taxes, etc., where one party provides something of an economic value to another without a *quid pro quo*, i.e., anything in return. The country receiving the grant or gift neither transfers nor promises to transfer anything in exchange. The lack of economic values on one side is compensated by an entry which is referred to as unrequited transfers. In India's balance of payments, the term 'transfers' is used in the same sense as of unrequited transfers.

Double Entry System of Recording

The balance of payments is based on the double entry system of bookkeeping. This is similar to the one used in business accounting. This is an internationally accepted convention for the balance of payments compilation. Transactions in a double entry accounting system are recorded in pairs of credit and debit entries of equal value. In the accounting sense, a country's balance of payments refers to the transactions which have economic value, and in which the counterpart entries for credits or debits are automatically paired.

Under the double entry system, credit entries are used to record unrequited transfers, income receivable, and financial transactions involving either a decrease in assets or an increase in liabilities.

Balance of Payments and International Economic Linkages

The analytical framework that links the international flow of goods, services, and capital to domestic economic behaviour consists of a set of basic macroeconomic accounting identities. These basic identities that link national economic activity with the balance of payments account show that if a nation produces more than it spends, it will save more than it invests, export would be more than its imports, and thus wind up with a capital outflow. A nation that spends more than it produces will invest more than it saves, import more than it exports, and wind up with a capital inflow.

Check Your Progress

9. How is the balance of payments of a country defined?
10. What does transfers on capital account include?
11. What does the capital account represent?

4.6 ROLE OF FDI AND MNCs

Foreign direct investment or FDI is an investment in the form of a controlling ownership in a business in one country by an entity based in another country. It is thus distinguished from a foreign portfolio investment by a notion of direct control.

Since liberalization policies of 1991, the Indian economy has been geared to attract foreign investment so as to achieve the economic objectives of growth and creating employment. India today has become one of the most attractive destinations of foreign direct investment. In 2017, India attracted almost $62 billion worth of FDI. The section will also discuss Multinational Corporations in India. A Multinational Company or MNCs is an enterprise that operates in several countries but it is managed from one (home) country. In today's globalized world, MNCs have come to dominate the world economy. We will discuss several aspects related to MNCs in India.

Foreign Direct Investment

Foreign direct investment or FDI plays a significant role in the growth and economic development of a nation. FDI is a source of capital, managerial skill and technical knowledge.

Economies across the world are globalizing and the major force shaping globalization is the growth of foreign direct investment. It has been playing a pivotal role, through the Multinational Corporations (MNCs), in bringing together the national economies and building an integrated international production system so as to enhance the competitiveness and economic performances of host and home countries. Considering the potential benefits of foreign direct investment for economic development and growth, governments strive to create a favourable climate to attract FDI, by establishing an enabling framework, knowing, however, that other factors (such as market size, growth and macroeconomic stability) carry the principal weight in investors' locational decisions. Governments have done so through the liberalization of their national FDI regimes by reducing or eliminating restrictive measures on entry and establishment, local ownership and control requirements, discriminatory operational conditions and screening or authorization procedures. Many have adopted or agreed to general standards of treatment—including national treatment, most-favoured-nation and fair and equitable treatment, and treatment according to international law — and provided specific guarantees in key areas such as the transfer of funds, expropriation and dispute settlement. These trends, which are part of a broader liberalization process that encompasses all types of international transactions, are in turn an extension of the general tendency to pursue market-oriented policies, as a means to achieve greater economic efficiency. During the past few decades, international trade and foreign direct investment have been the two most important activities that are integrating the world economy.

With the increase in the mobility of factors of production across countries, FDI has become an integral part of a firm's strategy to expand international business. FDI is the largest source of external finance for developing countries. At present, inward stock of FDI amounts to about one-third of the developing countries' GDP, compared to merely 10 per cent in 1980.

FDI in recent years has become a global commodity and especially the developing countries are in the race to attract more FDI. Empirical evidence reveals that to attract foreign investment, a large number of countries have introduced drastic reforms in their economic, fiscal, industrial, and political structure since 1991. Some of the key reforms introduced by these countries in FDI laws and regulatory framework include opening of industries previously closed to FDI, streamlining or abolition of approval procedures, provision of incentives and establishment of specialized liberalized schemes. Another development in the desire of government to facilitate FDI flows is reflected in a dramatic increase in the number of bilateral investment treaties (BITs) for the protection and promotion of investment. Besides, the pattern of BITs has also changed considerably from intra-developed and developed-developing to intra-developing and developing underdeveloped countries as a partner.

The net FDI inflows to developing countries increased from an annual average of US $5 billion in 1970–79 to US $13 billion in 1980–85, to US $25 billion during 1985–90.

Global FDI inflows registered an increase of 141 per cent from US $638 billion in 2003 to US $1538 billion in 2007. Developed countries continue to remain the major destination of FDI inflows with a global share of 65 per cent, followed by developing countries with 28 per cent and transition economies with 7 per cent in 2007. The rapid increase in the reforms initiatives taken by nations the world over has led to faster growth in the global FDI than world trade and world output.

The FDI equity inflows rose 28% in the first quarter of 2019-20 to $ 16.3 billion from $ 12.7 billion in the previous year.

FDI plays a crucial role in the development process of host economies. It also has a significant role in enhancing exports of the host country. It is estimated that the sales from foreign-owned facilities are about double the value of world trade. FDI not only serves as a source of capital inflow into host economies, but also helps to enhance the competitiveness of the domestic economy through transferring technology, strengthening infrastructure, raising productivity, and generating new employment opportunities.

FDI has often been viewed as a threat by host countries due to the capacity of transnational investing firms to influence economic and political affairs. Many developing countries often fear FDI as a modern form of economic colonialism and exploitation, similar to their previous unpleasant experiences with colonial powers.

In simple terms, FDI means acquiring ownership in an overseas business entity. It is the movement of capital across national frontiers, which gives an investor control over the assets acquired. FDI occurs when an investor based in one country (the home country) acquires an asset in another country (the host country) with the intent to manage it. It is the management dimension that distinguishes FDI from portfolio investment in foreign stocks and other financial instruments. Conceptually, a firm becomes a multinational corporation (MNC) by way of FDI as its operations extend to multiple countries.

Determinants of FDI

A firm, while selecting countries as investment destinations must evaluate the country on the following factors:

- **Resource base:** Availability of raw material, complementary factors of production, physical infrastructure, availability of skilled workforce, and availability of business-related services.
- **Market conditions:** Economic and political climate, taxation policies, incentives, trade policy, market size, market growth, regional integration, cost of capital input, wage rate, cost of logistics.

Benefits of FDI

The benefits that accrue to the host country from FDI include the following:

- **Access to superior technology:** Foreign firms bring superior technology to the host countries while investing. The extent of benefits depends upon the technology spill over to other firms based in the host country.
- **Increased competition:** The investing foreign firm increases industry output, resulting in overall reduction in domestic prices, improved product or services quality, and greater availability. This intensifies competition in host economies, resulting in net improvement in consumer welfare.
- **Increase in domestic investment:** It is found that capital inflows in the form of FDI increase domestic investment so as to survive and effectively respond to the increased competition.
- **Bridging host countries' foreign exchange gaps:** In most developing countries, the levels of domestic savings are often insufficient to support the capital accumulation to achieve growth targets. Besides, the level of foreign exchange may be insufficient to purchase imported inputs. Under such situations, the FDI helps in making available foreign exchange for imports.

Drawbacks of FDI

In most countries, public opinion towards foreign enterprises is not very favourable and FDI is feared due to its impact on domestic firms, the economy, and culture. The major drawbacks of FDI are as follows:

- **Market monopoly:** Multinational corporations are far more advanced than domestic companies, owing to their large size and financial power. In some sectors, this has led to MNC monopolies, thus impeding the entry of domestic enterprises and harming consumers. An MNC's ability to operate at a large scale and invest heavily in marketing and advertising and R & D activities differentiate their products and makes entry of new firms far more difficult as they are unable to make similar investments in R & D and marketing strategies.
- **Crowding-out and unemployment effects:** FDI tends to discourage entry and stimulates exit of domestic entrepreneurs, often termed as the crowding-

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out effect. As FDI enterprises are often less labour intensive, their entry results in higher unemployment and increased social instability.

- **Technology dependence:** MNCs often function in a way that does not result in technology-sharing or technology-transfer, thereby making local firms technologically dependent or technologically less self-reliant.
- **Profit outflow:** Foreign investors import their inputs and use the host country as a processing base, with little value-added earnings in the host country. A large proportion of their profits may be repatriated.
- **Corruption:** Large foreign investors often bribe government officials and distort market forces.
- **National security:** With MNCs holding a dominant position in sensitive industries, such as telecommunications, and the supply of core equipment and software for the information technology (IT) industry, there is a danger that the strategic interests of the host country may be compromised.

According to the *Financial Times*, in 2017, India overtook China and the US as the top destination for the Foreign Direct Investment. In first half of the 2015, India attracted investment of $31 billion compared to $28 billion and $27 billion of China and the US respectively. FDI inflows in India increased to USD 60 billion in 2016-17 indicating that the government's effort to improve ease of doing business and relaxation in FDI norms is yielding results. In the next fiscal, foreign direct investment in India had increased to USD 61.96 billion.

4.6.1 Multinational Corporations in India

The emergence of the multinational private corporation as a powerful agent of world social and economic change has been a signal development of the post-War era. Its evolution has been regarded with mixed feelings by the host countries.

A multinational corporation is an enterprise which owns or controls producing facilities in more than one country such as factories, mines, oil refineries, distribution channels, etc. The United Nations defined multinational corporations as 'enterprises which control assets—factories, mines, sales offices and the like—in two or more countries'. According to another definition, a multi-company is one with sales above $100 million with operations in at least six countries and with subsidiaries accounting for at least 20 per cent of its assets.

Multinational Corporations account for one-fifth of the world's output, excluding socialist economies. Their production in recent years has been growing at the rate of 10 per cent a year, nearly twice the growth rate of the world output and half as much as the world trade. According to one report in 2016, out of the top 100 economies in the world, 31 were countries and 69 were multinational companies. Therefore, multinationals are gigantic in size.

Most of the multinationals enjoy predominantly oligopolistic market positions and are characterised by the importance of new technologies, special skills or product differentiation and heavy advertising which sustain their oligopolistic nature by making the entry of competitors more difficult.

Almost every large enterprise has foreign involvement of some kind. Whatever its home, it will send agents to other nations, establish representative offices abroad, import foreign materials, export some products, license foreign firms to use its patents or know-how, employ foreign nationals, have foreign stock-holders, borrow money from foreign banks and even have foreign nationals on its board of directors. None of these, however, would make an enterprise multinational because none would require a substantial direct investment in foreign assets nor entail a responsibility for managing organizations of people in alien societies. Only when an enterprise confronts the problems of designing, producing, marketing and financing its products within foreign nations does it become truly multinational.

A domestic corporation may become multinational by establishing foreign branches, by operating wholly or partially owned subsidiaries in other countries or by entering into joint ventures with enterprises in other countries.

It is interesting to note the concentration of multinational corporations in certain fields of industries. Taking the USA as the leader of such enterprise, we find that 85 per cent of US investment is concentrated in the following industries: vehicles, chemicals, mechanical and electrical engineering.

If we take the multinationals as a whole, we find that they have established almost complete domination on such industries as rubber tyres, oil, tobacco, pharmaceuticals and motor vehicles.

Concentration in Specific Areas

The geographical distribution of multinational corporations shows an interesting pattern. If we consider the distribution by the origin of enterprise, we find that in 1966, about 55 per cent of the multinationals were of US origin, 20 per cent of British origin, while about 25 per cent were of European or Japanese origin.

Multinational operations by private business corporations are comparatively recent in the history of man. The companies of merchant traders in medieval Venice and the English, Dutch and French trading companies of the 17th and 18th centuries were forerunners, but not true prototypes of today's multinational corporation. They were essentially trading rather than manufacturing organizations, with comparatively little fixed investment. And they operated mainly within the colonial territories rather than under the jurisdiction of foreign sovereign states.

Historical Background

During the 19th century, foreign investment flowed extensively from Western Europe to the underdeveloped areas of Asia, Africa and the Americas. In this age of empire building, Victorian Britain was the great capital exporter, followed by France, Germany and the Netherlands. Little of this capital flow was direct investment outside imperial boundaries.

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The first substantial multinational corporate investment came in the mining and petroleum industries during the initial years of the 20th century. A wide geographical separation existed between the great mineral deposits of the world and the consuming markets in the USA and Western Europe. Hence large oil companies like British Petroleum and Standard Oil and mineral corporations like International Nickel were among the first true multinationals. Coca-Cola, Singer, Woolworth were early American multinationals.

Multinational corporate investment spread further in the years after World War I, spurred by rising barriers to international trade and led by burgeoning automobile and associated industries. After the Second World War, multinationals flowered as American firms invested heavily abroad in a wide variety of manufacturing and merchandising operations.

American corporations led the world trend towards business multinationalism. The great size and wealth of the US economy generated capital for investment. Companies were attracted by the relatively higher foreign rates of return on investment. American capital outflow took the form of corporate direct investment because of the superior organization of American capital markets and the larger capabilities of American managers. American corporate investment abroad is concentrated in the hands of the largest firms. Of a total investment of $65 billion at the end of 1968, 500 largest American corporations had invested more than $50 billion.

Direct investment in foreign manufacturing facilities is an alternative to exporting home- made products. Why have manufacturers endure the harder tasks and larger risks of foreign operations instead of shipping their products abroad? Evidently, direct investment appeared to be more profitable.

The second reason for direct foreign investment is that entrepreneurs confront foreign barriers to their exports. Nationalistic sentiments led most nations to build their own industrial capabilities. By raising barriers against imports of manufactured products, they induced foreign as well as local firms to establish domestic industries. Large number of American corporations became multinationals simply to maintain or expand markets in Canada or in E.E.C. that could not be as profitably served by exports.

Third, business firms also multnationalise because their presence as a producer in a foreign nation enables them to adapt their products to local demands more effectively. Another reason for direct foreign investment is that the anti-trust laws and keen competition at home tended to restrict the expansion of dynamic American business, channelling corporate attention to opportunities abroad.

Organizational Forms

A multinational business corporation may adopt one of the two basic organizational forms—(*i*) a world corporation form in which domestic and foreign operations are merged or (*ii*) an international division form in which foreign business is done in separate national divisions, apart from domestic operations.

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Multinational corporations plough back their profits on a significant scale. This removes, to some extent, the basis of the charge that they indulge in economic drain. But some countries also feel that ploughing back of profits is not a good solution because it increases the foreign stake in a country's economy and polity.

American corporate investment in developing countries has been gradually shifting from an earlier emphasis on the mining, extractive and raw material industries towards diversified manufacturing and merchandising operations. One important consequence has been a great increase in American exports of technological and managerial skills and knowledge to the recipient country. This shift will serve to reduce the charge of foreign exploitation.

The potential contribution of multinationals to the development of poorer countries is large. Its realization depends mainly on the development of stable governments in those countries and their actions to encourage private investment. Any developing country that offers political stability, respect for contracts, financial responsibility and equitable taxation will attract investment, foreign and domestic. The remarkable evolution of such regions as Hong Kong and Taiwan testify to this truth.

Private business investment is superior to governmental aid as an instrument of development because it combines transfer of managerial and technical assistance with that of capital. General dissatisfaction with bilateral governmental aid makes it important to expand the flow of business investment. While measures to limit or to insure against risks will help to enlarge this flow, they will not remove the root causes of international tensions. The foreign subsidiary of the American corporation will still be charged with "exploitation" of local resources and making too much profit. When it pays higher than prevailing wages and benefits to its employees, their higher living standards will provoke envy and resentment amongst others.

The political and social effects of multinational corporations in developing countries are not as clear as their economic effects. The process of development is inherently unsettling to a society. By producing shifts in the distribution of income and wealth and by redistributing economic power among social classes, development creates political stresses. Often these tensions can be relieved by peaceful political reforms; not infrequently they are followed by more or less violent upheavals. Indeed, being an agent of change, the foreign corporation is seen in the developing country as a threat to privileged positions in the traditional society. However, some leading development economists have counselled Latin American countries that their best interests would be served by compelling foreign firms to sell affiliates to local owners or to the government. They argue that the foreign affiliates stunt the growth of local enterprise. While nationalistic pride may be bolstered by such a policy, its cost in slower development appears to be high.

The cultural consequences of American corporate penetration in the developing countries can be plainly seen in the ready acceptance by natives of soft

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drinks, packaged foods, automobiles, electrical appliances and much of the paraphernalia of American life. At a more fundamental level, it is likely that the status and value systems, the social attitudes and behavioural patterns, the arts and the essential cultural foundations of many of these countries will also undergo profound changes. These should ultimately reduce barriers of communication between peoples and lay a common basis for a stable world order.

Multinational corporations are carriers of new values and ideas that threaten the old ways, which have served the people of developing countries well. A multinational corporation introduces 'the idea of meritocracy instead of aristocracy, of rewarding talent instead of status, of distinguishing people by ability instead of by colour or sex'.

Fear of 'loss of control' of their national destinies because of massive foreign private investment has caused many developing countries to enact laws for screening such investment in the future. The case for home country controls is not necessarily based on charges of 'abuses' or 'exploitations' by multinationals. The case for home country controls over multinational business enterprises is based on the reality that the goals of the multinational firms and the goals of host country are not identical.

A developing country should lay emphasis on exporting manufactures. This view reflects the vision that a modern country needs industry and that the small domestic markets of most developing countries will impose high costs unless industrial products are exported. Developing countries complain frequently that multinational firms usually prohibit exports by their foreign subsidiaries. For example, in the 1960s in India, 43 per cent of all written collaboration agreements between Indian firms and foreign firms from 1961 to 1964 contained clauses restricting exports.

Much of the hatred against American multinationals is based on a mistaken identification of the American multinational corporations with the imperialistic enterprises of former colonial powers. The initial experience with foreign corporations of most host countries in the developing regions of the world was with the imperial monopolies of Britain, France, Holland and Spain. These early companies were the 'chosen instruments' of their governments. They followed the flags of the mother countries into their colonies to mine and harvest natural resources and to sell manufactured goods at high profit margins. It was natural that these early multinational corporations were regarded as instruments of imperialism by the colonial peoples. These attitudes have been carried over to the more recent American multinational corporations, which are viewed as an instrument of "neo colonialism" and probably as an agent of CIA. But the US does not treat its enterprises as "chosen instruments" of national policy.

Multinationals operate in India in two ways: (*i*) through branches established in the country and (*ii*) through Indian companies which are subsidiaries of foreign companies, which hold more than 50 per cent of the paid-up equity capital.

In 1977, there were 482 branches of multinationals operating in India. Of these, 319 were branches of UK-based companies. The US-based companies had the second largest number of branches – 88; Japanese, W. German, Swiss, French and Canadian companies came next, with 21, 12, 11, 8 and 7 respectively. After India's liberalisation and globalisation policies in 1991, the number of MNCs operating in India skyrocketed. As Foreign Direct Investment can be made in almost any sector in India, the numbers of MNCs in India have grown to over 5,800 in 2017.

In 1973, the United Nations took note of the growing size of the multinationals and recommended an in-depth study of the rise of multinationals and its impact on trade and development of other countries. A group of eminent persons led by Mr L.K. Jha submitted a report on the subject in 1974. Important points made in the report are as follows:

1. International corporations are organizations largely beyond the control of any single government;
2. Their overall goal is worldwide profits without regard for what is best for an individual country;
3. The interests of the country where a subsidiary is established for the development of export markets are subjected to the market interests of the parent company;
4. Parent companies do not make the most modern technology available to their subsidiaries; and
5. International corporations prevent the growth of locally owned enterprises by aggressive and unfair competition.

Criticism of Multinationals

To begin with, there is hardly any reason to justify the term multinational because in most cases only nationals of one country serve on the governing body or board. They operate in several countries and may have employees from many nations, but most policy and investment decisions as well as control are from one centre. It is also pointed out that multinationals do not regard themselves obligated to the interests of the region in which they are located. They neglect the training of the local people for the top management position.

Second, there is also an inherent danger that at the time of crisis, these corporations are capable of diverting vast sums of money from one area to another, which could bring about the collapse of the economic system.

Third, the technology that multinational corporations transfer was invented in an environment where capital was abundant and labour was scarce. The reverse is true for the Third World countries which are long on labour and short on capital. So the technology is not appropriate for the developing countries.

Fourth, Raul Prebisch and Hans Singer speak of the 'enclave' effect of foreign investment in that the multinational tycoons never become part of the internal economic structure of the less developed countries.

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Fifth, worse than the economic dominance is the cultural devastation of host countries. Operations of these multinationals strike a resounding similarly to the ways of the old imperialists which imposed their own culture on the colonies. They create a small nucleus of parallel culture in the host countries through payment of considerably higher salaries and perks to the local staff, thereby alienating them from the mainstream.

Sixth, a French critic has said that governments cannot stop inflation partly because they no longer can control huge multinational tycoons whose search for profits and creation of consumer demands are at the base of the problems.

A President of General Motors declared, "What is good for General Motors is good for America". But what is good for America may not be good for the host country.

Regulation of Multinationals

Foreign companies which undertake business activities in India or invest in Indian businesses need to comply with certain Indian laws. For example, at the time of making an investment in India or setting up an Indian office, the foreign company needs to comply with the Foreign Exchange Management Act (FEMA). FEMA also requires foreign companies in India to comply with certain procedural and filing requirements on a periodic basis when they conduct operations in India. Similarly, if the company sells products or services in India and has an office in India, it will have to comply with Indian tax laws. Similarly, it will be required to comply with local regulations if it has an office (such as a Shops and Establishment Registration).

Understanding the definition of foreign company under Companies Act, 2013

A foreign company is a company which is incorporated outside India but having its place of business (including a share transfer or an office registered with a regulatory authority) in India. Under the Companies Act 2013, a foreign company means any company or body corporate incorporated outside India which has a place of business in India, either of its own or if it conducts business through an agent, physically / electronically or any other manner. However, all foreign companies are not required to comply with the Companies Act, it is only applicable to foreign companies where 50% or more of the paid-up share capital (calculated by including preference shares) is held by Indian entities. Foreign companies must comply with the provisions of the Companies Act, 2013 in respect to the business as if it were a company incorporated in India.

Government Policy

The policy of the government is to ensure that operations of foreign companies as also those of indigenous concerns conform to the overall socio-economic policy of the country and their activities, including their size of operations are regulated within the policy guidelines announced by the government from time to time.

Indian Joint Ventures Abroad

Indian joint ventures abroad have shown encouraging performance in relation to the twin policy objectives of extending co-operation to developing countries and creating opportunities for this country in exports of capital goods, technology and know-how.

The ventures have been contributing to the progress of import substitution and industrialisation in the developing countries where they are primarily located. In the process, they have resulted also in increased exports of technology-intensive products from India. Even in terms of commercial profitability, the performance of the joint ventures has shown improvement. The total profits they earned doubled between 1974–75 and 1976–77. Also the losses have declined during the period.

In 1978, there were a total of 329 joint venture proposals from Indian entrepreneurs. The proposals involve projects in as many as 48 countries.

The trend towards higher investment indicates that Indian entrepreneurs have now started embarking upon some ambitious and well-planned projects as are capable of yielding handsome returns after a few years. Such projects also speak volumes for India's technological capability and competence.

A region-wise analysis of the ventures in production discloses a marked preference by Indian entrepreneurs to invest in the neighbouring countries of South-East Asia especially in ASEAN countries. They had invested ₹1518.2 lakh in actual Indian equity in 47 units in South-East Asia. The figures are in comparison to ₹23.9 lakh in five units in South Asia, ₹30 lakh in eight units in West Asia, ₹687.5 lakh in 19 unit in Africa and ₹68.3 lakh in 13 units in Europe and America.

In South-East Asia, in the 1970s India had as many as 26 joint ventures (actual and projected) in Malaysia alone, followed by Indonesia (7), Thailand

(5), Singapore (4), the Philippines (3) and Fiji (1). In South Asia there are three Indian joint ventures in Sri Lanka and one each in Nepal and Afghanistan. Elsewhere the position is as follows: West Asia: Iran (2), UAE (4), Oman (2). Africa: Kenya (6), Mauritius (7), Nigeria (5) and Uganda (1). Europe and America: France (1), UK (4), West Germany (1), Canada (2) and the USA (5).

After liberalisation, the magnitude and quality of foreign investment by Indian companies have gone up substantially. There has also been a perceptible shift in Overseas Investment Destination (OID) from the year 2000 onwards. While in the first half of 2017, overseas investments were directed to resource rich countries such as Australia, UAE, and Sudan, in the latter half, OID was channelled into countries providing higher tax benefits such as Mauritius, Singapore, British Virgin Islands, and the Netherlands. Indian firms invest in foreign shores primarily through Mergers and Acquisition (M&A) transactions. With rising M&A activity, companies will get direct access to newer and more extensive markets, and better technologies, which would enable them to increase

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their customer base and achieve a global reach. India has emerged as one of the strongest performers in the deal-street across the world in mergers and acquisitions. M&A deal volume in India increased 14 per cent to 1,022 transactions, worth US$ 46.8 billion, in 2017.

According to the data provided by Reserve Bank of India (RBI), India's outward Foreign Direct Investment (OFDI) in equity, loan and guaranteed issue stood at US$ 784.28 million in the month of February 2018 as against US$ 866 million in January 2018 and US$ 1.35 billion in February 2017.

The Relevance of Swadeshi

According to Eichenberg in his lecture on 2 February 2000 on liberal international relations theory, the promotion of free trade and the institution of democratic principles is the key to peace. In late 1991, with the transfer of the Indian Parliament into the hands of political and economic reformers, India began its quest towards liberalization despite much opposition. The reform implemented liberal trade in the largest democracy in the world.

Since India's independence from British control in 1947, Indian foreign policy can be characterized as fairly isolationist. During the Cold War period, India retained a policy of nonalignment, which was uncommitted to either the West or the East and stuck to 'swadeshi' ideology.

Swadeshi, which simply means 'India first,' is an extremely nationalistic ideology that promotes self-sufficiency. Just under a decade ago, Indian foreign policy has taken important measures towards liberalization. Under PM Narasimha Rao India has faced important reforms in its domestic and foreign economic policy. Under the administration of Rao, major changes in banking, interest rates and the ability to fully convert rupees (India's currency) in trade transactions took place. However, towards the end of 1991, Rao took the most important step by opening India's doors to foreign investment. The new government tried to restructure the 'ever-proliferating bureaucracy' and the 'license raj'. This reshaping broke the barriers, which allowed foreigners to step into the Indian markets. Such barriers included series of permits and licenses granted only by members of the Indian Parliament or high-ranking bureaucrats. These complicated and inefficient policies turned away potential foreign investors and, therefore, severely affected the Indian economy.

Rao also implemented revolutionary changes as part of the reform plan. According to the Asian Survey by Nalini Kant Jha, Rao limited the equity participation to 40 per cent and removed the provision for the necessity of local control of industry. India also removed restrictions on foreign trade, which significantly inflated the export growth and notably reduced customs duties and tariffs on imports.

The policy reforms in 1991 allowed India to step into a new era, an era of liberalization. Firstly, India's democracy is much different than the government of any other developing in existence today. Political parties and public activists play a major role in the development and sustenance of governmental political and economic policies. Amartya Sen in his work entitled, *India: Economic Development and Social Opportunity* says, 'The democratic framework of the Indian polity permits this exercise (of public influence) in ways that are not open in many other developing economies.' As a result, the constituents of the democratic state continue to be the major political actors in India's international relations.

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Secondly, India's new economic policy of a liberal trade is leading the country to forge stronger and better relations with western nations, such as the US. Before the initiation of this new liberal era, the Indo-US relations have been quite unpleasant due to the nonalignment policy of India during the Cold War Era and the swadeshi temperament of the Indian Parliament during that time.

When Rao took office in 1991, he tried to recuperate the relationship through liberal ideology. He planned to improve the trade relations between the two largest democracies of the world and, as a result, turn the existing tension into mutually beneficial alliance.

During the 1990s, there was a continual increase of foreign investment in India by many nations. Foreign interests in India increased exponentially and, as a result, India moved far away from its swadeshi years to an age of global interdependency. However, the reforms of 1991 were not been widely accepted by all Indians. Much opposition was mainly led by the Bharatiya Janata Party (BJP) and the Left parties. The BJP and the Left claimed that India was moving towards the wrong direction. According to them, the country is moving towards a mirage of liberalism only to realize that their developing nation is being exploited by neo-imperialism. The BJP and other swadeshi advocates claimed that the 'common man' of India began to suffer due to increased prices in agricultural and food products and decreased wages due to outside competition. However, when the BJP came to power, they also undertook many reforms to welcome foreign investment and FDI.

According to Eichenberg's lecture on neo-imperialism on 23 February 2000, there are two net results of the theory, which are:

- The limitation on domestic sovereignty
- Underdevelopment as a result of increased dependency on the global economy

The reform of 1991 did not result in either of these two. During the last two decades, as India has extended its hands to numerous and diverse foreign investors, they are not extensively dependent on a single trading partner. As a result, India could not, as Sen puts it, become an 'economic prisoner in the international world of open exchange.' Thus, domestic sovereignty remains strong as the existence of multiple international trading partners remain. Moreover, these trading partners will continue to remain because of the huge market for all goods and services that exists in India due to its increasingly large middle class. Hence, a high influx of foreign investment from numerous diverse investors will not lead to underdevelopment, but, on the contrary, lead to strong development of the nation's economy.

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As against the beliefs of the supporters of the swadeshi ideology, India is not affected by liberalization, but is, in fact, the state's best option. The Indian economy is being continually strengthened by the new domestic and foreign economic policies of the central government by allowing foreign investment to enter the Indian market. This has further strengthened the global importance and international recognition of the country. Consequently, India's relations with the US, Europe and the Far East have begun to improve through increased interdependency, ideational similarities and global interests in the state, thereby leading to a more peaceful international environment.

Check Your Progress

12. What is Foreign Direct Investment (FDI)?
13. Define multinational corporation.

4.7 ANSWERS TO 'CHECK YOUR PROGRESS'

1. The Indian Railway Conference Association (IRCA) was set up in 1903.
2. RDSO is the sole R&D organization of Indian Railways and functions as the technical advisor to Railway Board, Zonal Railways and Production Units.
3. Two major thermal power plants in India are Durgapur Thermal Power Station, Durgapur, West Bengal and Indraprastha PS, NCT Delhi.
4. The National Digital Communications Policy, 2018 seeks to unlock the transformative power of digital communications networks.
5. Digital infrastructure and services are increasingly emerging as key enablers and critical determinants of a country's growth and well-being.
6. A country's trade policy refers to the set of policies which govern the external sector of its economy
7. Import controls aim at restricting unwanted import of goods to conserve the limited foreign exchange reserves.
8. Jaipur, Srinagar and Anantnag have been recognized as 'Towns of Export Excellence'.
9. Balance of payments of a country has been defined as a 'systematic record of all economic transactions between the residents of the reporting country and residents of foreign countries. It includes both visible and invisible transactions'.
10. Transfers on capital account include external borrowings or repayments of external borrowings, external investments or disinvestments, etc.

11. The capital account represents transfer of money and other capital items and changes in the country's foreign assets and liabilities resulting from the transactions recorded in the current account.
12. Foreign Direct Investment or FDI is an investment in the form of a controlling ownership in a business in one country by an entity based in another country.
13. A multinational corporation is an enterprise which owns or controls producing facilities in more than one country such as factories, mines, oil refineries, distribution channels, etc.

4.8 SUMMARY

- For a sustained economic growth of a country, a well-known and coordinated system of transport plays a significant role.
- Road transport is vital to the economic development and social integration of the country.
- Easy accessibility, flexibility of operations, door-to-door service and reliability have earned road transport an increasingly higher share of both passenger and freight traffic vis-à-vis other transport modes.
- The Railways in India provide the principal mode of transportation for freight and passengers. It brings together people from the farthest corners of the country and makes possible the conduct of business, sightseeing, pilgrimage and education.
- Energy is the prime mover of economic growth. Availability of sufficient and efficient energy is key to sustainable development of a country.
- In India, thermal power plants account for 65 per cent of the installed capacity in the country. A thermal power plant is usually a steam-driven power plant.
- India was the first nation to establish hydro-electric power plants. The foremost Hydro power plants in India were set up at Shimsha in 1902 and Darjeeling in 1898.
- Indian Telecom industry has emerged as the fastest growing telecom market in the world.
- The opening of the telecom sector to the foreign investors has not only led to rapid growth in subscriber base but also helped a great deal towards maximization of consumer benefits, particularly in terms of price discovery following the moderate approach in tariffs
- A country's trade policy refers to the set of policies which govern the external sector of its economy.
- In a country like India, trade policy is one of the many economic instruments which is used to suit the requirements of economic growth.

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- Before Independence, India had trade surpluses and there was regular gold inflow into the account to pay for the surplus.
- An economic transaction is an exchange of value or transfer of a title to a good or an asset.
- The study of balance of payments has become a matter of great interest in the recent years to businessmen, bankers, and economists. The financial statement of a bank reveals the bank's condition.
- Foreign direct investment or FDI is an investment in the form of a controlling ownership in a business in one country by an entity based in another country.

4.9 KEY TERMS

- **MNC:** A multinational corporation or worldwide enterprise is a corporate organization that owns or controls production of goods or services in at least one country other than its home country.
- **Thermal power station:** A thermal power station is a power station in which heat energy is converted to electric power. In most places the turbine is steam-driven.

4.10 SELF-ASSESSMENT QUESTIONS AND EXERCISES

Short-Answer Questions

1. Write a short note on the role of railways sector in Indian economy.
2. What are the major functions of RDSO?
3. Which are the major hydro power plants in India?
4. What is the approach adopted by integrated energy policy?
5. Mention the main features of balance of payments.

Long-Answer Questions

1. Discuss the role of power and transportation in Indian economy.
2. 'Indian telecom industry has emerged as the fastest growing telecom market in the world.' Comment on the statement with reference to the text.
3. How has communication sector evolved in India? Discuss.
4. What is the composition of India's foreign trade? Discuss the structural changes made in the trade policy of India since independence.
5. Describe the role of Foreign Direct Investment in a country's trade.

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UNIT 5 PLANNING IN INDIA

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Structure

5.0 INTRODUCTION

A planned economy is an economic system in which the economy is directed by the state. It is an economic system in which the central government controls industry by making major decisions regarding the production and distribution of goods and services. The two major types of planning are central or centralized planning and indicative planning. After the end of the British Raj, Independent India decided to follow a centralized planning approach to its development. In this regard the Planning Commission was set up.

In this unit, the objectives, strategies, achievements and failures of planning in India have been discussed in detail. The problem of poverty and unemployment is also discussed here.

5.1 OBJECTIVES

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

- Understand the objectives, strategies, achievements and failures of planning in India
- Discuss the objectives of NITI Aayog
- Explain the concept of poverty and unemployment
- Describe the objectives of unemployment eradication programmes in India

5.2 OBJECTIVES, STRATEGIES, ACHIEVEMENTS AND FAILURES OF PLANNING IN INDIA

India's first Prime Minister, Jawaharlal Nehru set up the Planning Commission with a Government of India resolution in March 1950. The Planning Commission was set up in pursuance of the declared objectives of the government, which was to promote a swift rise in the standard of living of the people by the efficient utilization of the resources of the country, increasing production and offering opportunities to all for employment in the service of the community. Nehru was the first chairman of the Planning Commission, a post that has been held by all subsequent prime ministers. The charge of the Planning Commission was to assess all the resources of the country, increasing deficient resources, formulating plans for the most effective and balanced utilization of resources and determining priorities.

Table 5.1 provides you a summary of various five-year plans formulated and executed by the Planning Commission of India since its inception. In this section, we will focus on the 'Nehru-Mahalanobis' model in the five-year plans which represented the Nehruvian view of state-led development. The state-led development model was largely followed by India till 1991 when the balance of payment crisis and subsequent pressure from monetary agencies like the World Bank and the International Monetary Fund (IMF) made India liberalise its economy and abandon the centralized planning approach.

The 'Nehru-Mahalanobis' model was formulated by Prof. P. C. Mahalanobis under the guidance of Nehru. The 'Nehru-Mahalanobis Model' became the basis of the second five-year plan and continued to be guiding principle of all subsequent plans with small alterations until 1977 when the Janata Party came into power and conceived of the Gandhian model. The emphasis of the model was on the rapid development of heavy industry with the objective of creating an indigenous industrial base so as to make India even more self-reliant into heavy industries and-goods sector. The justification of the heavy industries strategies was stated in the framework of the second five-year plan because "in long run, the rate of industrialization and the growth of the national economy would depend upon the increasing production of coal, electricity, iron and steel, heavy machinery, heavy chemicals and heavy industries generally – which would increase the capacity for capital formation. One important aim is to make India independent as quickly as possible of foreign imports of producer goods so that the accumulation of capital would not be hampered by difficulties in securing supplies of essential producer goods from other countries. The heavy industry must, therefore, be expanded with all possible speed." The Nehru–Mahalanobis Model's justifications for greater emphasis on heavy industry were given as follows:

(i) The British colonial government intentionally denied the development of heavy industry in India and kept the country, primarily an agrarian economy, as an appendage of the British colonial system.

(ii) The Indian industrial structure was mainly dependent on the consumer goods industries. Therefore, it was necessary to broaden this base by developing heavy industries and infrastructure. The argument was made that a diversified industrial structure could absorb a huge population of labour and raise labour productivity. Such a situation would reduce the nation's dependence on agriculture as a provider of employment.

(iii) Since the productivity of labour was higher in manufacturing than in agriculture, a push towards industrialisation promised to bring about a swift increase in national and per capita income.

(iv) The rapid development of the industrial sector was not only critical for the development of agriculture, but also for the growth of all other sectors of the Indian economy.

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Although there was no denying the fact that foreign aid assisted in the development of capital goods and the infrastructure sector, the 'Nehru-Mahalanobis Model' stressed that the major burden of development would have to be borne by domestic savings. Since foreign aid would largely come in the form of loans, the model emphasised the growth of exports so as to pay for the bulk of imports by the increase in exports. The model was also conscious of the fact that enormous investments in heavy industry, although very important, would not increase employment significantly, since such investments were capital-intensive. Therefore, in order to generate employment and support the production of consumer goods, investment had to be made in small scale industries. The emphasis of enormous investment in heavy industry did not mean that the model did not give due importance to the role of agriculture for developing the Indian economy. Nehru recognised how critical agriculture was to the Indian economy stating, "We shall find that this industrial progress cannot be achieved without agricultural advances and progress… Everyone knows that unless we are self-sufficient in agriculture we cannot have the wherewithal to advance in industries. If we have to import food, then we are doomed so far as progress is concerned. We cannot import both food and machinery."

Indian Planning Since Independence

A summary of various Five-Year Plans in India has been provided in Table 5.1 below:

Table 5.1 *Summary of Five-Year Plans since Independence*

Plan	Aspects
First Plan (1951–56)	• Based on the Harrod-Domar Model • Community Development Program launched in 1952 • Focus on agriculture, price stability, power and transport • Plan successful primarily because of good harvests in the final two years of the plan
Second Plan (1956–61)	• Also called the Nehru-Mahalanobis Plan • Focus on rapid industrialization • Advocated huge imports through foreign loans • Shifted the emphasis from agriculture to industry • Target Growth: 4.5 per cent • Actual Growth: 4.27 per cent • During this plan, prices increased by 30 per cent, against a decline of 13 per cent during the first plan
Third Plan (1961–66)	• At the inception of the third plan, it was felt that the Indian economy had entered a take-off stage. Therefore, the aim of the plan was to make India a 'self-reliant' and 'self-generating' economy • Based on the experience of first two plans, agriculture was given top priority to support the exports and industry • Target Growth: 5.6 per cent • Actual Growth: 2.84 per cent • The plan failed completely in reaching targets due to the Chinese aggression of 1962, the India-Pakistan War if 1965 and a severe drought in 1965–66

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Annual Plans (1966–69)	The prevailing crisis in agriculture and a serious food shortage necessitated the emphasis on agriculture during the Annual Plans
	During these plans a completely new agricultural strategy was implemented. It involved the wide-spread distribution of high-yielding varieties of seeds, extensive use of fertilizers, exploitation of irrigation potential and soil conservation During the Annual Plans, the economy absorbed the shocks that were generated during the third plan The annual plans paved the path for the planned growth ahead
Fourth Plan (1969–74)	• The main emphasis of the plan was on growth rate of agriculture to enable other sectors to move forward • Target Growth: 5.7 per cent • Actual Growth: 3.30 per cent • The first two years of the plan saw record production. The last three years did not measure up due to poor monsoons • The influx of Bangladeshi refugees before and after the 1971 Indo-Pak war was an important issue
Fifth Plan (1974–79)	• D.D. Dhar prepared and launched the fifth five year plan • The two main objectives of the plan was 'Garibi Hatao' (removal of poverty) and the 'attainment of self reliance' • The promotion of a high rate of growth, better distribution of income and significant growth in the domestic rate of savings were seen as key instruments of the plan • The fifth plan was abruptly terminated in 1978 instead of 1979 after the Janata Party came to power at the centre • Target Growth: 4.4 per cent • Actual Growth: 3.8 per cent
Rolling Plan (1978–80)	• There were two sixth five-year plans. The Janata party government put forward a plan for 1978–1983. However, the government lasted for only two years. The Congress returned to power in 1980 and launched a different plan
Sixth Plan (1980–85)	• The Congress government's sixth five-year-plan focused on increasing national income, modernising technology, ensuring the continuous decrease in poverty and unemployment, population control through family planning, etc • Target Growth: 5.2 per cent • Actual Growth: 5.66 per cent
Seventh Plan (1985–90)	• The focus of the seventh plan was the rapid growth in food-grains production, increased employment opportunities and productivity within the framework of the basic tenants of planning • The plan was very successful with the economy recording 6 per cent growth rate against the targeted 5 per cent • Target Growth: 5.0 per cent • Actual Growth: 6.01 per cent
Eighth Plan (1992–97)	• The eighth plan was postponed by two years because of political uncertainty at the Centre • The Balance of Payment crisis and inflation during 1990–91 were the key issues during the launch of the plan • The plan undertook drastic 'structural adjustment policies' enforced by the World Bank to combat the bad economic situation and to undertake an annual average growth of 5.6 per cent • Some of the main economic outcomes during the eighth plan period were rapid economic growth, high growth of the agriculture and allied sector the manufacturing sector, the growth in exports and imports, improvements in trade and the current account deficit
Ninth Plan (1997–2002)	• The ninth five year plan was developed in the context of four important dimensions. The dimensions were quality of life, generation of productive employment, regional balance and self-reliance • Target Growth: 6.5 per cent • Actual Growth: 5.35 per cent

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Eighth Plan (1992–97)	• The eighth plan was postponed by two years because of political uncertainty at the Centre • The Balance of Payment crisis and inflation during 1990–91 were the key issues during the launch of the plan • The plan undertook drastic 'structural adjustment policies' enforced by the World Bank to combat the bad economic situation and to undertake an annual average growth of 5.6 per cent • Some of the main economic outcomes during the eighth plan period were rapid economic growth, high growth of the agriculture and allied sector the manufacturing sector, the growth in exports and imports, improvements in trade and the current account deficit
Ninth Plan (1997–2002)	• The ninth five year plan was developed in the context of four important dimensions. The dimensions were quality of life, generation of productive employment, regional balance and self-reliance • Target Growth: 6.5 per cent • Actual Growth: 5.35 per cent
Tenth Plan (2002–2007)	• The objective of the tenth five year plan was to achieve 8 per cent GDP growth rate, reduce poverty by five percentage points by 2007, provide universal primary healthcare by 2007, and to provide sustained drinking water to all villages by 2012. • The plan also aimed at providing high quality gainful employment to the labour force over the plan period and aimed at increasing literacy rate to 72 per cent within the plan period and to 80 per cent by 2012 • Target growth:8.1 per cent • Growth achieved:7.7 per cent
Eleventh Plan (2007–2012)	• Accelerate GDP growth from 8% to 10 per cent, increase agricultural GDP growth rate to 4 per cent per year, create 70 million new work opportunities and reduce educated unemployment to below 5 per cent • Raise real wage rate of unskilled workers by 20 per cent • Reduce dropout rates of children from elementary school from 52.2 per cent in 2003–04 to 20 per cent by 2011–12 and increase literacy rate for persons of age 7 years or above to 85 per cent • Lower gender gap in literacy to 10 percentage point and increase the percentage of each cohort going to higher education from the present 10 per cent to 15 per cent • Reduce infant mortality rate to 28 and maternal mortality ratio to 1 per 1000 live births • Reduce Total Fertility Rate to 2.1 • Attain WHO standards of air quality in all major cities by 2011–12 • Provide clean drinking water for all by 2009 • Increase forest and tree cover by 5 percentage points • Reduce malnutrition among children between 0–3 years to half its present level and reduce anaemia among women and girls by 50 per cent • Raise the sex ratio for age group 0–6 to 935 by 2011–12 and to 950 by 2016–17 • Ensure that at least 33 per cent of the direct and indirect beneficiaries of all government schemes are women and girl children • Ensure all-weather road connection to all habitation with population 1000 and above (500 in hilly and tribal areas) by 2009, and ensure coverage of all significant habitation by 2015 • Treat all urban waste water by 2011–12 to clean river waters • Connect every village by telephone by November 2007 and provide broadband connectivity to all villages by 2012 • Increase energy efficiency by 20 percentage points by 2016–17

The 12th Five Year Plan (2012-2017)

Rather than project a single average growth rate over the five-year period, the Twelfth Five Year Plan (2012-17) envisaged three scenarios termed as 'strong inclusive growth', 'insufficient action' and 'policy logjam'. The aim of the 12th Five Year Plan was faster more inclusive and sustainable growth. The Plan pegged the average annual growth rate of the Gross Domestic Product (GDP) under the three scenarios at 8 per cent, 6 to 6.5 per cent and 5 to 5.5 per cent, respectively.

The Twelfth Plan document stated that the objective of 8 per cent annual average growth of GDP can be achieved provided policies that take care of weaknesses in the system are put in place. To emphasize the role of policies, alternative scenarios were presented in the Plan. Scenario one is called 'Strong Inclusive Growth' and presents what is possible if well-designed strategy is implemented, intervening at key leverage points through the numerous policy actions. The Twelfth Plan targeted growth rates of 4.0 per cent for agriculture, 7.6 per cent for industry and 9.0 per cent for services, thereby aiming at 8.0 per cent growth in overall GDP.

There were three important revisions to the calculation of GDP in this period: (i) The base year has been changed from 2004-05 to 2011-12; (ii) more reliable data sources are used for the corporate, finance corporations and autonomous institutions and (iii) GDP is now calculated at market prices (broadly equivalent to consumer prices) instead of factor costs (broadly equivalent to producer prices).

Because the GDP had been estimated under the old methodology only up to the year 2013-14, we have the growth rates associated with both the old and new methodology for years 2012-13 and 2013-14 only. When measured at factor cost, the real GDP growth under the old methodology turns out to be 4.5 per cent in 2012-13 and 4.7 per cent in 2013-14. Because the Twelfth Plan projections were based on the old series, it may be reasonably concluded that at least in 2012-13 and 2013-14, India has performed worse than the 'policy logjam' scenario.

While the growth in industrial sector improved significantly over the years, the rate of growth of GVA in Agriculture, forestry & fishing and Services showed mixed trends. Increasing large share for services in total output at a relatively early stage of development is not typical and a matter of concern as, in India, the structural shift from agriculture to services is actually bypassing the industrial sector. The Twelfth Five Year Plan is the last Five Year Plan. The Planning Commission was replaced by the NITI Aayog.

5.2.1 NITI Aayog

The Government of India, in keeping with its reform agenda, constituted the NITI Aayog to replace the Planning Commission instituted in 1950. This was done in order to better serve the needs and aspirations of the people of India. An important evolutionary change from the past, NITI Aayog acts as the quintessential platform of the Government of India to bring States to act together in national interest, and thereby fosters Cooperative Federalism. The National Institution for Transforming India, also called NITI Aayog, was formed via a resolution of the Union Cabinet on January 1, 2015.

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At the core of NITI Aayog's creation are two hubs – Team India Hub and the Knowledge and Innovation Hub. The Team India Hub leads the engagement of states with the Central government, while the Knowledge and Innovation Hub builds NITI's think-tank capabilities. These hubs reflect the two key tasks of the Aayog.

Instead of the Five Year Plans, NITI Aayog has been tasked with preparing the following documents:

(i) A vision document keeping in view the social goals set and/or proposed for a period of 15years;

(ii) A 7-year strategy document spanning 2017-18 to 2023-24 to convert the longer-term vision into implementable policy and action as a part of a 'National Development Agenda'; and

(iii) A 3-year Action document for 2017-18 to 2019-20 aligned to the predictability of financial resources during the 14th Finance Commission Award period. This is also to help translate into actions the goals of the government to be achieved by 2019.

The decision to discontinue Five Year Plans has also meant that the distinction between plan and non-plan expenditures conventionally made will no longer be made in the future Budgets beginning 2017-18. This is a suggestion that has long been made by economists. The principal distinction will now be between revenue and capital expenditures.

Check Your Progress

1. What is a planned economy?
2. Who set up the Planning Commission in India?

5.3 POVERTY AND UNEMPLOYMENT

Generally, the poor is identified on the basis of their occupation and ownership of assets. According to scholars, the rural poor mainly work as:

- Landless agricultural labourers
- Cultivators with very small landholdings
- Landless labourers who are engaged in a variety of non-agricultural jobs
- Tenant cultivators with small land holdings

The urban poor are majorly born out of the rural poor who had migrated to urban areas in search of alternative employment and better livelihood, labourers who do a variety of casual jobs and the self-employed who sell a variety of things on roadsides and are engaged in various activities.

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In post-independent India, several attempts have been made by the government to define a mechanism in order to identify the number of poor in the country. People are divided into two categories for the purpose of defining poverty-the poor and the non-poor - and these two categories are further separated by the poverty line. However, there are several kinds of poor, including the absolutely poor, the very poor and the poor. Similarly, there are various kinds of non-poor, including the middle class, the upper middle class, the rich, the very rich and the absolutely rich.

Several factors, other than income and assets, are associated with poverty; for instance, the accessibility to basic education, health care, drinking water and sanitation. However, the mechanism to determine the poverty line does not consider social factors that initiate and is responsible for causing poverty such as illiteracy, ill health, lack of access to resources, discrimination or lack of civil and political freedoms. The government should make sure that the aim of poverty alleviation schemes should be to improve human lives by expanding the range of things that a person could be and could do, such as to be healthy and well-nourished, to be knowledgeable and participate in the life of a community. From this standpoint, development means removing the obstacles to the things that a person can do in life, such as illiteracy, ill health, lack of access to resources, or lack of civil and political freedoms.

Therefore, population growth plays a significant role in resulting in very low growth in per capita income terms. This further result in widening the gap between the poor and the rich. The Green Revolution aggravated the inequalities regionally and between large and small farmers. This was further aggravated by the unwillingness and inability to redistribute land and thus very little land reforms. More recently, economists now state that the benefits of economic growth rather than reaching the poor, has resulted in greater inequality. In fact, the Gini coefficient, the measure of income inequality in a country, has gone up in India in the last 20 years. This means that while a minority may have benefitted greatly by the reforms process, the lives of the majority of people in India is no different than it was 20 years ago. Recognizing this, the Government has started to talk about creating policies for 'inclusive growth'. Whether the formulation of such policies will have an impact in reducing the huge levels of poverty and inequality in India remains to be seen.

Head Count Poverty Index

The Planning Commission, which is the nodal agency for estimating the number and proportion of people living below the poverty line at national and regional levels, separately for rural and urban areas; makes poverty estimates every five years. The survey is based on a large sample survey of household consumption expenditure carried out by the National Sample Survey Organization (NSSO) after an interval of approximately five years. The Commission has been estimating the poverty line and poverty ratio since 1997 on the basis of the methodology spelt out in the report of the Expert Group on 'Estimation of Number and Proportion of Poor' (known as Lakdawala Committee Report). On the basis of NSS 61st Round (July 2004 to June 2005) consumer expenditure data, the poverty ratio is estimated at 28.3 per cent in rural areas, 25.7 per cent in urban areas, and 27.5 per cent for the country as a whole in 2004–05 using uniform recall period (URP). In URP, consumer expenditure data for all the items are collected for a 30-day recall period. Based on mixed recall period (MRP) for the same period, the poverty ratios are 21.8 per cent in rural areas, 21.7 per cent in urban areas, and 21.8 per cent for the country as a whole. In MRP, consumer expenditure data for five non-food items, namely clothing, footwear, durable goods, education, and institutional medical expenses, are collected for a 365-day recall period and the consumption data for the remaining items are collected for a 30-day recall period. The poverty estimate in 2004–05 based on URP consumption (27.5) is comparable to that of 1993–94 (36). The poverty estimates in 2004–05 based on MRP consumption (about 21.8) is roughly (but not strictly) comparable to that of 1999–2000 (26.1). Poverty ratio for rural India is considerably higher than the poverty ratio for urban areas on the basis of URP while it is almost the same on the basis of MRP.

The poverty headcount ratio at national poverty line in India was last reported at 21.9% in 2011-12.

Reasons for Poverty in India

There are several reasons responsible for poverty in India. Some of them are discussed below:

(i) **Growth of population:** One of the major problems of poverty in India is the high growth rate of population especially among the poor. This is because of their strong belief in traditions, illiteracy and also their preference for the male child, which results in increase in population. With limited income, and numerous mouths to feed, they are unable to make ends meet.

(ii) **Low rate of economic development:** Low rate of economic development is another major cause of poverty. The rate of economic development in India has been below the required level. It implies low per capita income, leading to a low standard of living. The population in India has been increasing at an annual average rate over 2 per cent during the plan period. Employment opportunities increase slowly because of low growth rate in the economy. This has kept the poor families in the state of poverty.

(iii) **Unemployment:** With more than 2 crores unemployed people (in 2003–2004), India is in the grip of unemployment and underemployment. There is less job opportunities compared to the number of job seekers. Though efforts have been made to promote small and cottage industries to generate employment; however, even these industries could not absorb sufficient workforce so as to reduce poverty. Thus, the problem of unemployment and indebtedness is responsible for making the problem of poverty more acute.

(iv) **Lack of education:** Growth of population has long been associated with the lack of education. Since the poor have limited access to education, they usually end up with low-paid jobs. This in turn, results in low income. Since, most underprivileged people are illiterate; they think that more the number of members in the family, more it will help in acquiring wealth.

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(v) Inflationary pressure: The constant rise in price has only added to the miseries of the poor. Sharp rise in prices has led to fall in the real income of fixed and low-income earners. Because of this, the poor reduced their purchasing power. This in turn, has led to low standard of living.

(vi) Socio-cultural factors: Socio-cultural set-up of the country also contributes to poverty to a large extent. Usually, people belonging to lower castes and tribal groups, comprise the poor. Illiteracy and limited chances of mobility perpetuates poverty. Factors such as caste system, joint family system, religious faith and beliefs, and law of inheritance have hindered the process of economic growth.

(vii) Growth strategy: Various strategies designed in the government plans have not been implemented properly. Some are yet to be developed. In fact, the growth strategy has kept the poor out of the development process. Prof. H. Meghnad Desai points out, 'India's poverty–creating programmes is larger than its poverty removal programme.'

(viii) Inequalities in income: Inequalities of income in rural and urban areas of the country is another cause of poverty. During the plan period, a large proportion of increased income has been cornered by the affluent ones. Due to inequalities in the distribution of income and assets, even a small rise in per capita income could not affect the poor. Hence, the problem of poverty has become acute.

(ix) Inadequate anti-poverty measures: In view of the large magnitude of the problem of poverty in the country, the anti-poverty measures taken by the government are far from adequate. Some of them have been implemented half-heartedly and the ones, which have been implemented, have benefited only selected sections of the populace. Despite implementation of measures, the success in alleviating poverty has been limited.

(x) Capital deficiency: Capital formation is a very important factor that can lead to economic growth and fall in poverty. There is a dearth of capital in India which results in low productivity, low per capita income and the end result happens to be poverty.

(xi) Globalization: Globalization has pushed many households below poverty line. It is because production of some of the most important food crops have declined as agricultural land is being used for production of export crops after the inception of the globalization process. Liberalization has also forced small farmers to compete in a global market where prices of agricultural good are low.

(xii) Political factors: Political structure of the country is also one of the factors accounting for the continued poverty. Political power is concentrated in the hands of the upper strata of the society, both in the urban area and rural areas. Economic policies are formulated to promote the interest of the richer section of the society. Poor people, particularly peasants, landless labourers, tribal people and slum dwellers suffer in the process.

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5.3.1 Unemployment

The state of joblessness for an able man who is willing to work is known as Unemployment. In India, unemployment is much higher in urban areas than in rural areas. According to economists and social thinkers, unemployment can be both voluntary or involuntary. Voluntary unemployment is the condition when a person is out of job just for his own desire due to any reason. In Involuntary unemployment a person is separated from remunerative work and devoid of wages inspite of having all the capabilities.

Various problems like enormous increase in the population, age, vocational unfitness and physical disabilities, technological and economic factors have caused this problem. Other problems also contribute towards unemployment. Several socio-economic problems like poverty, malnutrition, antisocial and criminal activities, drug and substance abuse, etc., are the result of ill effects of unemployment.

According to the NSSO survey, the overall unemployment rate in India was 7.3 per cent in 1999– 2000 with the unemployment rate in rural areas being 7.2 per cent and that in urban areas being 7.7 per cent. Moreover, almost 30 per cent of workers in India are occasional workers who only work when they get jobs and remain unemployed for the rest of the time. Only 10 per cent of the workforce in India is in regular employment.

Five year plans had introduced several employment generating schemes and programs over the years but due to lack of proper implementation and monitoring, these employment generating schemes have not achieved the required targets. The recent National Rural Employment Guarantee program is a new and praiseworthy effort by the UPA Government as it will provide employment to rural people for minimum hours even during natural calamities like drought, floods, etc.

Table 5.2 shows all India rural and urban unemployment rates for NSS 66th Round.

Table 5.2 *All-India Rural and Urban Unemployment Rates for NSS 66th Round*

Sl No.	Estimate	Rural 2009-2010	Urban 2009-2010	Total 2004-2005	Total 2009-2010
1	UPSS	1.6	3.4	2.0	2.3
2	CWS	3.3	4.2	3.6	4.4
3	CDS	6.8	5.8	6.6	8.2

Source: Key Indicators of Employment and Unemployment in India, 2009-10, NSSO.

5.3.2 Poverty and Unemployment Eradication Programmes in India

The problem of poverty—a multidimensional challenge for India—needs to be addressed seriously. Poverty alleviation and improvement in the standard of living of the masses has been one of the most important objectives of planning in India. However, the emphasis that is laid on the objective of poverty alleviation and strategy to achieve this objective has changed over the years. The measures which have been adopted by the government for the removal of poverty are as follows:

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(i) **Economic growth:** Economic growth can be helpful in removing poverty because of the trickle-down effect. It was thought that the benefits of economic growth would trickle down to the underprivileged in the form of more employment and more income because of the expansion of agricultural and non-agricultural activities. There are several potential drivers of growth that suggest it may be possible to accelerate GDP growth in the Twelfth Plan beyond the 8.2 per cent level achieved in the Eleventh Plan. These drivers include the impact of economic growth, development of a dynamic private sector, good management skills, etc.

(ii) **Population control:** High growth rate of population among the lower strata of the society is an important factor that is responsible for the perpetuating problem of poverty. Jansankhya Sthirata Kosh (JSK) has been registered as an autonomous society of the Ministry of Health and Family Welfare. The Government has provided a ‘ 100 crore corpus fund to signify its commitment to the activities of the Kosh. JSK has to use the interest on the corpus and also raise contributions from organizations and individuals that support population stabilization.

(iii) **Agricultural development:** Along with a substantial increase in plan allocation and credit for agriculture proper, an ambitious Bharat Nirman for rural infrastructure, the National Rural Employment Guarantee Act (MGNREGA) to dovetail employment security with land and water conservation, and the Backward Regions Grants Funds (BRGF) have enabled Panchayati Raj institutions in poorer regions to make their own plans. In addition to enhancing the scope of these initiatives, and making modifications as suggested by the various working groups, the Eleventh Plan introduced the Rashtriya Krishi Vikas Yojana (RKVY). This put in effect the NDC resolution to ‘introduce a new scheme for Additional Central Assistance to incentivize states to draw up plans for the agricultural sector more comprehensively, taking agro-climatic conditions, natural resource issues and technology into account, and integrating livestock, poultry and fisheries more fully.’ The Twelfth Plan will consider all these issues, as well as the weaknesses of existing schemes as brought out in the Mid-Term Appraisal of the Eleventh Plan. Its thrust will be to move forward with the RKVY and, in particular, focus more on the issues of sustainable development.

(iv) **Land reforms:** The Government had worked on a combined Land Acquisition and Rehabilitation & Resettlement Bill, 2011. The reason for combining the two into a single legislation is that land acquisition and resettlement and rehabilitation (R&R) need to be seen necessarily as two sides of the same coin. The Bill seeks to balance the need for facilitating land acquisition for various public purposes, including infrastructure development, industrialization and urbanization, while at the same time meaningfully addressing the concerns of farmers and those whose livelihoods are dependent on the land being acquired.

(v) **Development of cottage and small-scale industries:** The small-scale industries have been given a special place in the industrialization programme. Since these industries have played an important role in the generation of employment and in ensuring a more equitable distribution of income; the government has provided necessary incentives, support technical assistance and infrastructure facilities to promote these industries.

(vi) **Public Distribution System:** The government has also launched a scheme of Public Distribution System (PDS). The objective of this scheme is to provide cheap and subsidized food grains to the poor. The PDS functions through a wide network of fair price shops. Since June 1997, a new scheme known as the Targeted Public Distribution System (TPDS) has been adopted in order to provide subsidized food grains for the families falling below the officially estimated poverty line at the rate of 10 kg per month per family.

The government is considering the National Food Security Bill, 2013. According to this Bill, every person belonging to 'priority households' are entitled to receive five kilograms of food grains per person per month at subsidized prices from the state government under the TDPS. The TPDS system today supports over 40 crore Indians below the poverty line with monthly supply of subsidized food grains. The system also provides gainful employment for 4.78 lakh Fair Price Shops Owners, their employees and hired labour who work at the FCI and state warehousing godowns.

Since the Fifth Five-Year Plan (1974–79), poverty alleviation has been adopted as an explicit objective of our economic planning. Since then, a number of poverty alleviation programmes have been launched with the specific objective of reducing poverty. During the 1970s, a number of special programmes for the rural poor were undertaken. Some of the important programmes were as follows:

- Small Farmers Development Agency (SFDA)
- Marginal Farmers and Agricultural Labourers Development Agency (MFALDA)
- Drought-Prone Area Programme (DPAP)
- Crash Scheme for Rural Employment (CSRE)

The wage employment programmes started as pilot projects in the form of Rural Manpower Programme (RMP) [1960-61], Crash Scheme for Rural Employment (CRSE) [1971–72], Drought Prone Area Programme started as Rural work Programme (RWP) [1972], Small Farmers Development Agency (SFDA), Marginal Farmers & Agricultural Labour Scheme (MF&AL) for the poorest of the poor. These experiments were translated into a full-fledged wage-employment programme in 1977 in the form of Food for Work Programme (FWP). In the 1980s, this programme was further streamlined into the National Rural Employment Programme (NREP) and Rural Landless Employment Guarantee Programme (RLEGP), Jawahar Rozgar Yojana (JRY1993–94) and Employment Assurance Scheme (EAS). This programme (RLEGP) begun in 1983.

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In the 1980s and 1990s, the government undertook various programmes which were more comprehensive and made a direct attack on rural and urban poverty. The important programmes were as follows:

- National Rural Employment Programme (NREP)
- Rural Landless and Employment Generation Programme (RLEGP)
- Jawahar Rozgar Yojna (JRY)
- Integrated Rural Development Programme (IRDP)
- Scheme of Training Rural Youth for Self-Employment (TRYSEM)
- Self-Employment Programme for Urban Poor (SEPUP)
- Nehru Rozgar Yojna (NRY)

These special poverty alleviation programmes have been revamped, redesigned and restructured to make these programmes more effective. The important poverty alleviation programmes in operation in rural and urban areas are explained as follows:

(i) **National Social Assistance Programme (NSAP):** The National Social Assistance Programme (NSAP) which came into effect from 15 August 1995, represents a significant step towards the fulfillment of the Directive Principles in Article 41 of the Constitution. The programme introduced a National Policy for Social Assistance for the poor and aimed at ensuring minimum national standards for social assistance in addition to the benefits that the states are currently providing or might provide in future. NSAP, at present, comprises the following:

- **National Old Age Pension Scheme (NOAPS):** Under this scheme, helpless aged person of more than sixty-five years of age gets financial assistance of ₹75 per person.
- **National Family Benefit Scheme (NFBS):** Under this scheme, the family living below poverty line receives a lump-sum central grant in case of death of the primary bread earner in the family.
- **National Maternity Benefit Scheme (NMBS):** Under this scheme, a pregnant woman of more than nineteen years of age from a family living below poverty line gets assistance for maternity care.

(ii) **Indira Awaas Yojana (IAY):** It is an important scheme whose main purpose is the construction of houses for the poor people. Initially, it aimed at providing houses free of cost to the poor families belonging to scheduled castes and scheduled tribes and free bonded labourers. Later, the scheme was extended to cover other underprivileged categories as well.

(iii) **Shiksha Sahayog Yojana (SSY):** This scheme was launched on 31 December 2001. It aims at providing monthly education allowance of '100 for children whose parents meet the criteria of living below the poverty from the ninth to twelfth standard.

(iv) **Pradhan Mantri Gramodaya Yojana (PMGY):** PMGY was introduced in 2000–01 with the objective of focussing on village level development in five critical areas such as health, primary education, drinking water, housing and rural roads. PMGY includes the following three major projects:

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- **Pradhan Mantri Gram Sadak Yojana (PMGSY):** PMGSY was launched on 25 December with the objective of providing road connectivity through good all-weather roads to all rural habitations.
- **Pradhan Mantri Gramodaya Yojana (Gramin Awaas):** This scheme was implemented in April 2000 based on Indira Awaas Yojana having at its heart the aim of sustainable habitat development in rural areas to accommodate the increasing housing needs of the poor people living in villages.
- **Pradhan Mantri Gramodaya Yojana (Rural Drinking Water Project):** Rural Drinking Water Project was launched with the objective of developing projects for providing water harvesting, water conservation and drinking water to drought prone areas.

(v) **Samagra Awaas Yojana (SAY):** This scheme was undertaken in 1999–2000 on pilot project basis to meet the housing needs in one block in each twenty-five districts of twenty-four states and in one Union Territory with a view to ensuring integrated provision of shelter, sanitation and drinking water.

(vi) **Natural Food for Work Programme (NFWP):** This programme was initially launched in February 2001 for five months, and was further extended. The programme aims at augmenting food security through wage employment in the drought affected areas in eight states, namely, Gujarat, Chhattisgarh, Himachal Pradesh, Madhya Pradesh, Maharashtra, Orissa, Rajasthan and Uttarakhand. Under this scheme, wages are paid partly in kinds like food grains and partially in cash. It is the responsibility of the state governments to implement this scheme.

(vii) **Krishi Shramik Samajik Suraksha Yojana (KSSSY):** KSSSY came into effect in July 2001 with an aim to provide social security benefit to agricultural labourers, who were between the age of 18 and 60 years.

(viii) **Annapurna:** The Annapurna Scheme became effective from April 2000 as an entirely Centrally Sponsored Scheme. The main purpose of this scheme was to provide food security to meet the needs of senior citizens. The scheme became effective in most Indian states and five Union Territories. This scheme offered assistance to more than 6,08,000 families.

(ix) **Jawaharlal Nehru National Urban Renewal Mission (JNNURM):** This scheme was launched in 2005–06 for a seven-year period. It has two components—Basic Service to the Urban Poor Programmes (BSUPP) and Integrated Housing and Slum Development programme (IHSDP).

(x) **Valmiki Ambedkar Awaas Yojana (VAAY):** This scheme was launched in the year 2001. It facilitates the construction and upgradation of dwelling units for slum dwellers. It also provides community toilets under Nirmal Bharat Abhiyan.

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(xi) **Antodaya Anna Yojana (AAY):** With the sole aim of offering food security to the senior citizens under the National Old Age Pension Scheme, food grains are given to the beneficiaries at subsidized rates of ₹ 2 per kg. This scheme became effective from 1 April 2000 as an entirely Centrally Sponsored Scheme. It has covered more than 6,00,000 people. As announced in the Union Budget 2005–06, the AAY was further expanded to cover 50 lakh below poverty line households, which extends its coverage to 2.5 crore households.

(xii) **Garibi Hatao:** 'Garibi hatao', which means 'eradicate poverty' was the slogan of the Sixth Five Year Plan of the Indira Gandhi Government. Agricultural growth became the focus of the government and a number of poverty alleviation schemes were undertaken.

(xiii) **Food for work programme**: A short run programme was initially launched with effect from February 2001 for five months, but it was further extended. The main objective of this programme was to augment food security by making available wage employment in the drought affected rural areas in eight states, namely, Gujarat, Chhattisgarh, Himachal Pradesh, Madhya Pradesh, Maharashtra, Orissa, Rajasthan and Uttarakhand. The Central Government is responsible for making available a sufficient amount of food grains for free to each of the states that was affected by the drought. Wages by the State government can be paid partially in kind (up to 5 kg of food grains per Monday) and partially in cash. Assuring the notified minimum wages, the workers are paid the minimum balance of wages in cash. This programme stood extended up to 31 March 2002 in respect of notified 'National Calamity Affected Districts'. This scheme was later merged in NREGS since 2 February 2006.

5.3.3 Inflation

Wholesale price index (WPI) series with 2004-05 base was released on 14 September 2010. A representative commodity basket comprising 676 items has been selected and weighting diagram derived for the new series. The total number of price quotations has also increased from 1981 in the old series to 5482 in the new series, indicating better representation of the prices in the wholesale markets. Sector-wise price quotations have increased from the old to new series from 455 to 579 in primary group and from 1391 to 4831 in the manufactured products group.

Some of the important items included in the new series basket are flowers, lemons and crude petroleum in primary articles and ice cream, canned meat, palm oil, readymade/instant food powder, mineral water, computer stationery, leather products, scooter/motorcycle tyres, polymers, petrochemical intermediates, granite, marble, gold and silver, construction machinery, refrigerators, computers dish antenna, transformers, microwave ovens, communication equipment (telephone instruments), TV sets, VCDs, washing machines and auto parts in manufactured products.

The rural population, particularly the rural labour in India, is faced with many socio-economic problems such as unemployment/under employment, low incomes, illiteracy and high incidence of indebtedness.

General Wholesale Price Situation

Economic survey 2011-12 showed increasing food prices on account of unfavourable agricultural supply conditions coupled with the waning of base effect, leading to sharp increase in inflation. Thereafter, the headline WPI inflation reached 10.23 per cent in March 2010.

The Financial year 2010-11 started with 11 per cent headline inflation in April 2010. During 2010-11, the monsoon situation has been better than it was last year. As per the second advance estimates, production of food grains in 2010-11 is likely to be 232.07 million tonnes compared to 218.11 million tonnes last year. However, demand pressures became visible in early 2010.

At disaggregate level, the price behaviour of three major commodities groups has been in marked contrast to the previous year when inflation remained low on account of global decline in commodity prices. From March to July 2010, headline inflation remained in double digits. The major contributors to this primary articles whose inflation hovered in the range of 14.7 per cent to 21.5 per cent and fuel which recorded inflation in the range of 10.3 per cent of 14.4 per cent. However, the inflation in manufactured products remained in the lower range of 4.5 to 6.4 per cent during the current year.

The government is committed to ensuring availability of cooking fuels to the common man at affordable prices. In view of the importance of household fuels, namely kerosene and domestic liquefied petroleum gas (LPG), the government has decided that the subsidies on these products will be continued. The PDS kerosene and domestic LPG Subsidy Scheme 2002 as well as the Freight Subsidy (for Far-flung Areas) Scheme 2002 have been extended till 31 March 2014. However, in order to reduce the burden of under-recoveries, it has been decided to increase the retail price of public distribution system (PDS) kerosene to ₹14.29 and of domestic LPG to ₹410, in Delhi corresponding increases in other parts of the country. Prices of petrol and diesel, both at the refinery gate and retail level, will be market determined. However, it is proposed that increase in prices of diesel will be staggered over time to minimize the overall impact on the poor and vulnerable. It has also been decided that in case of a high rise and volatility in international oil prices, government will suitably intervene in the pricing of petrol and diesel.

Average Trends in WPI Inflation

The ten-year average of headline WPI inflation was around 5.3 per cent from 2000-01 to 2009-10; in this decade 2000-01, 2003-04, 2004-05, 2006-07 and 2008-09 had higher inflation relative to the decadal average. In the current financial year, the average inflation (April-December 2010) of 9.4 per cent was also much higher than the decadal rate. The ten-year average inflation in fuel was around 8.9 per cent. The major portion of that was contributed by the high inflation of 2008-10. The years 2003-04, 2004-05, 2006-07 and 2008-09 also witnessed high inflation in manufactured products mainly on account of high prices of raw materials, such as basic metal alloys and metal products, non-metallic mineral products, and

NOTES

machinery and machine tools. The year 2008-09 was different from the previous three years as inflation in all the three sectors remained high on account of high international fuel and commodity prices. The year 2009-10 was an abnormal one due to global slowdown and unfavourable monsoon. Notwithstanding, the average inflation in fuel. In the current financial year (2010-11), overall average inflation from April-December 2010 at 9.4 pe rcent, is the highest recorded in the last ten years.

Food Inflation of WPI

The food index consists of two sub components, namely primary food articles and manufactured food products. The overall weight of the composite food index in the WPI is 24.31 per cent, comprising primary food articles with a weight of 14.34 per cent and manufactured food products with a weight of 9.97 per cent. A major concern in the domestic economy has been a sharp rise in food price inflation during the year 2010-11. The WPI food inflation has moderated to 8.59 per cent in December 2010 after reaching its peak of 20.22 per cent in February 2010. Of its two components, primary food price inflation touched a historic high in the revised series at 21.9 per cent in February 2010, thereafter declining to 9.4 per cent in November 2010 and once again rising to 13.6 per cent in December 2010. However, manufactured food products exhibited a decline in inflation from 19.3 per cent in December 2009 to 0.4 per cent in December 2010. Among food items, sharp rise in prices was observed in onions, fruits, eggs, meat and fish and milk. The prices of food grains, however, remained low on the back of good monsoons with a year-on-year inflation of – 2.6 per cent in December 2010.

> Inflation is when you pay fifteen dollars for the ten-dollar haircut you used to get for five dollars when you had hair.
>
> *– Sam Ewing*

Main Drives of Food Inflation

In 2010-11, inflation in primary food articles was mainly driven by rice, vegetables, potatoes, onions, fruits, milk, eggs, meat and fish, condiments and spices, and tea. However, the WPI of manufactured food products with 2004-05 base is in the comfortable zone. It was 142.7 in December 2010 as against 142.2 in December 2009. This has marginally increased due to vanaspati oil, groundnut oil, sunflower oil, rice bran extraction, tea and coffee process, and mail liquor.

Core inflation is a measure of inflation that excludes items that face volatile price movement, notably food and energy. It is, therefore, a preferred tool for framing long-term policy. Core inflation, which was 0.55 per cent in November 2009, reached its peak in April 2010 at 8.07 per cent. Thereafter, it has moderated in response to monetary measures taken by Reserves Bank of India (RBI). However, inflation in non-food manufactured products (weight 55.00 per cent) had not increased much and remained in the range of 5.1 to 5.9 per cent in the current financial year. Notwithstanding, year-on-year inflation in the composite non-food index (weight 75.7 per cent) has increased to 8.36 per cent in December

2010 after moderating to 7.96 per cent in September 2010 from 9.18 per cent in April 2010.

Main items of concern in non-food inflation are raw cotton, raw jute, raw silk, copra, castor seed, sunflower, raw rubber, copper ore, zinc, iron ore, cotton textiles, petrochemical intermediate and industrial machinery and machine tools.

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Annual Inflation as per Different Price Indices

The inflation in terms of the consumer price index for industrial workers (CPI-IW) remained in double digits from July 2009 to July 2010. The inflation in terms of the CPI-AL (Agricultural) maintained higher levels last year relative to the WPI, mainly because of the larger weight assigned to food items. In consumer price indices, food items contribute a weight of 46.20 per cent in the CPI-IW and 69.15 per cent in the CPI-AL as against 24.31 per cent in WPI. The food inflation has decelerated after reaching its peak in January 2010. As a result, CPI inflation rates have gone down substantially.

Disaggregated Consumer Price Inflation

Analysis at this level has assumed importance in view of the fact that the current phase of relatively high inflation is concentrated in food, pan, supari, tobacco and intoxicants, and housing. Two major contributors of high CPI-IW inflation were food and housing. The housing sector is the third major contributor after food and the miscellaneous group, having a 15.3 per cent weight in the CPI-IW commodities basket. However, the average inflation (April-December 2010) was lower than in the corresponding period last year.

The non-food inflation in CPI-IW has increased during April-December 2010 to 11.64 per cent as against 8.78 per cent in the corresponding period last year. During April-December 2010, food inflation has declined to 10.29 per cent as compared to 14.70 per cent during the corresponding period last year. Inflation in the CPI-IW has increased in December 2010 to 9.47 per cent as against 8.33 per cent in November 2010. Food inflation in the CPI-IW has also increased to 7.98 per cent in December 2010 from 5.35 per cent in November 2010.

Inflation in fruits and vegetables and onions based on the CPI-IW in December 2010 was 15.3 per cent and 77.6 per cent respectively as against 22.77 per cent and 45.82 per cent respectively based on the WPI. State-wise CPI-IW and year-on-year inflation in December 2010 for onions shows unprecedented rise in inflation in the northern region, particularly Punjab.

Introduction of CPI-Urban and CPI-Rural

The Central Statistics Offices (CSO) has taken up a new initiative of compilation of CPI (urban), CPI (rural) and CPI (rural+urban) for all states/UTs and all India by considering all sections of the urban and rural population. These indices would reflect the true picture of price behaviour of various goods and services consumed by the urban and rural population.

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5.3.4 Black Money

The prevalence of corruption in civic life is a universal experience, but recently, it has assumed alarming proportions in India. It has spread to each part of the governmental bodies, and a more speedy growth of corruption has been observed among the politicians, the political workers at all stages and even in the uppermost ranks of political leadership, both at the levels of the state and the Centre. There persists a massive public scepticism towards corruption, and there is a general feeling of acceptance of corruption in civic life by people. It is felt that people indicted of political corruption always go guiltless, and thus, accumulate more power, status and wealth. All this has resulted in a state of affairs, where even the most resolute efforts to fight the evil of corruption have failed dejectedly. It seems that the government is already aware of its existence, and also knows the likely manner in which it can be controlled, but is lacking the will required to implement such measures successfully. J. Nye states that 'corruption denotes the abuse or misuse of public offices for personal gains.' The English dictionary defines corruption as 'an inducement to wrong by bribery or other unlawful means: a departure from what is pure and correct'.

The following are some of the characteristics of corruption in India:

- It damages the whole body politic, economic and social—whether individual groups, establishments or business organizations.
- It means exercising more demands and influences by using the power of money.
- It expands and spreads when unethical politicians, government officials and powerholders get the power of making decisions and when they become pliant.
- It makes effortless headway in a lane of financial inequalities, societal backwardness and ethical decline.
- It has some major manifestations such as defection, factionalism and political bargaining, red-tapism, nepotism, white-collar crimes, blue-collar crimes and bureaucracy.
- It displaces all political systems but its offshoots mainly annihilate democracies in developing countries.
- It demoralizes the whole fabric of the social order doomed in illiteracy, poverty and backwardness.
- In India, corruption has emerged from the colonial and feudal order, which can be seen even today in the conduct of the Indian political system. Despite a drastic change in political elites and leadership, political corruption has continued until date.
- The act of corruption involves the dereliction of duty, moral and legal lapses.
- Corruption involves the practice of receiving bribes not only for getting wrong things done, but also getting right things done at the right time.

Political Corruption

Corruption in India has emerged as a social incident. It is extensive, and the cases of corruption are increasing at an unbelievable pace. There is barely any area of activity, which has remained totally free from the influence of corruption. As a matter fact, corruption has now become a commonly accepted practice. In India, taking bribes, under-the-table payments, gifts and commissions by the politicians or bureaucrats are not frowned upon. To legitimize them as a part of normal life activities, subtle ways have been found. In short, such an ethos has been generated in the society that corruption has stopped to be considered as a crime any longer. In simple terms, corruption is defined as the behaviour of public officials who deviate from accepted norms in order to serve private ends. In more sophisticated terms, corruption is a form of behaviour which deviates from the formal duties of a public role.

However, on the aspects of political corruption in the country, people are very much familiar with the following issues:

- The getting hold of (through fake and illegal means) large areas of farmland by the senior bureaucratic officials and political leaders
- The abuse and misuse of official position to enrich themselves directly or indirectly by employing their relations as proxies
- Granting of favours to members of their caste by superseding the due procedure, and overlooking the claim of others by using favoured officials as instruments
- The use of political position to overcome the purpose of judicial process
- Preservation of corrupt but well-entrenched political bosses to avoid the loss of power in case of a political party
- Misuse of governmental machinery for the political party purposes
- Starting businesses with the support of government and then enriching themselves
- Conducting business with the government offices in the name of firms owned by them but supposedly managed by their wives
- Exploitation of public funds managed by statutory bodies to bolster business concerns that act as financiers of public parties
- Embezzlement of public funds or the inability of governments to render accounts for public expenditure

Therefore, political corruption is a kind of wide range, multi-dimensional corruption. Political corruption refers to corrupting the political life of a country at all levels. In its broader sense, it searches for politicizing all walks of life and in its narrower aspect, it legitimizes unworthy political actions for benefiting vested interests whether they are institutional or personalized.

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Various Forms of Political Corruption

The whole infrastructure in the contemporary Indian society is built on the structure of corruption. It has come down from the top level to the bottom. Many a times, political corruption in the country happens in conspiracy with the bureaucracy in the form of huge kickbacks in big nationalized and global deals, which go unpunished for understandable reasons. In India, the link between corruption and the worsening of the basic administrative system has not been sufficiently understood and focussed upon. Corruption in post-independent India can be said to have begun with the Jeep scandal in 1948. V.K. Krishna Menon, who was the High Commissioner for India in London at that time was involved in a deal with a foreign company, and bought jeeps amounting to '80 lakh for the Indian Army in Kashmir without following normal procedure. At the level of states also, there are a number of such cases. The significant ones are the Fodder Scandal case in addition to the purchase scam in the Health Department of Bihar. These cases involved several hundred crores of rupees, which resulted in the collapse of Laloo Prasad Yadav's government as he was accused in both these cases. The Jharkhand Mukti Morcha Scam was another scam that institutionalized corruption because the MPs were involved in this scam, and not the bureaucrats. In 1993, the MPs belonging to the Janata Dal and JMM allegedly received bribes to defeat a no-confidence motion moved in the Lok Sabha against the minority government of P.V. Narasimha Rao. Apart from openly taking money or gifts in kind or favours, political corruption in the country has been apparent in various ways. Political corruption in our country has been seen to occur in the following forms:

- **Implementation of extra-constitutional authority:** The most significant spheres for political corruption are legislature, election and bureaucracy. The materialization of extra-constitutional centres of power exercise vast influence and power on behalf of the legally constituted institutions and authorities.
- **Raising of political funds by professional politicians:** In India, politics has come to obtain the character of a big industry in which the fund-raising qualities of a politician draw the largest premium. As elections have become an exclusive proposition, each party has shifted its focus from honesty to a capacity to raise funds regardless of the means used.
- **Kickbacks:** The most famous case of political corruption, which has presumed global impact, has been the supposed kickbacks in the purchase of Bofors 155m FH-778 guns. In 1987, the Swedish Radio claimed that an Indian firm was given a commission of 33 million Swedish Kroners (about '65 millions) regarding a deal worth billions of rupees for the delivery of the Bofors guns. It was said that the commission was remunerated in foreign exchange to the persons and friends who were close to the then Prime Minister Rajiv Gandhi. The Joint Parliamentary Committee that held an enquiry into this deal, did not find anything wrong, and pardoned Rajiv Gandhi. However, the Comptroller and Auditor General of India accused

the government for improprieties in the whole negotiations and the deal. It resulted in such a public protest that it became the most important issue in the 1989 general elections and resulted in the defeat of Rajiv Gandhi's government. The Central Bureau of Investigation is still working on this case to resolve the ambiguity of political kickbacks alleged to have been rewarded in the deal.

- **Bribing MPs to save government from accusation against the prime minister and a few cabinet members:** The Bank Securities Scam of 1992 was a major political fallout. In 1993, the main accused in the scam Harshad Mehta had alleged in a packed press conference hall that he had himself given a suitcase containing ₹6.7 million to the then Prime Minister Narasimha Rao at the latter's official house at New Delhi's Race Course Road. Later, the remaining ₹3.3 million were given to the prime minister's men. Although many people did not believe Rao's involvement in the scandal, the opposition made it an issue. It called for a no-confidence motion against the Rao government. The speedy no-confidence motion brought out by the Bharatiya Janata Party (BJP) and the Communist Party (Marxist) (CPM), which were the opposition parties at that time in the Parliament was ignominiously defeated. It was alleged that the managers of the Congress Party had bought out enough votes (a dozen in numbers) to defeat the no-confidence motion. The defeat of the no-confidence motion and survival of the Rao government were the two aims accomplished by the commercial transaction. The Congress Party declared that as the motion was defeated, it proved that the people were not keen to believe that the government was fraudulent.
- **Selling Public offices:** Another way of bribing the MPs and members of legislative assemblies (MLA) is by the incentive to give the legislators berths in the Council of Ministers or grant them bait of public offices to allow a party in minority or a particular political leader to remain in power. This leads to the establishment of jumbo-sized governments. It has become a common practice of specifically all governments that have coalition governments, both at the centre and states level.
- **Money laundering:** In February 1996, there occurred the $18 million Jain Hawala Case (money laundering scandal). The former Prime Minister Rao, some cabinet ministers and almost sixty politicians of different political parties and bureaucrats were involved in this scandal. These people were guilty of the violation of the Foreign Exchange Regulation Act (FERA), and were receiving money in foreign countries by means of Hawala transactions through some businessmen like N.K. Jain and his brothers.

The process of politicization and criminalization of politics adds to the political corruption in the country. Democracy is threatened due to the politicization of the police. Politicians use most pernicious methods such as the use of the services of the anti-social elements during elections. There is a close nexus between criminal elements and mafia leaders and the politicians. Practices such as booth-capturing, violence, threats and victimization of voters in the electoral process are quite prevalent. These practices ruin the weaker sections of our electorate. Today, it is extremely hard to affect the conviction of culprits, who are guilty of crimes such as murder, grievous hurt, intimidation and rape.

Bureaucratic Corruption

The following are the examples of activities, which are generally considered corrupt practices and unethical behaviour in the part of bureaucracy:

- Bribery, graft, patronage, nepotism and influence peddling
- Conflict of interest (including such activities as financial transactions to gain personal advantage, accepting outside employment during the tenure in government)
- Misuse of inside knowledge—for example, through the acceptance of business employment after retirement or resignation, favouring relatives and friends in awarding contracts or arranging loans and subsidies and accepting improper gifts and entertainment
- Protecting incompetent people
- Regulating trade practices or lowering standards in such a manner so as to give advantage to oneself or to the family members
- Use and abuse of official and confidential information for private purposes

Such activities may produce many such costs for a society as inefficiency, mistrust of government and its employee's distortion of programme achievements, waste of public resources, encouragement of black market operations and eventual national instability. A situation is created, which tolerates white-collar crimes against the nation by those who are its employees. Such costs may or may not be acceptable by a state, but at least a society should be aware that it is incurring them, and public officials should be sensitized towards their existence.

The following factors result in corruption and unethical conduct among public servants:

- Job scarcity
- Insufficient salary
- The ever-increasing powers that they enjoy to regulate the states' economy and social affairs

Various opportunities for making money are offered by this increased regulatory authority; for instance, in the cases of the development planning, granting permits, import-export licenses, contracts for construction; collecting customs and other duties and accounting for foreign exchange. Due to a valueless polity that governs the country, the integrity of civil services has eroded. Political executives achieve their short-term objectives by deploying pliant functionaries, handpicked on lines of their caste, community or political associations to handle key assignments. Due to this, the cadres of several civil services, which include the police and judicial services, are demoralized and their functioning is badly affected.

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Causes of Corruption

The following are some of the chief causes of corruption in India:

(i) **Scarcity of resources:** The scarcity of resources–educational, natural and monetary–leads to job scarcities, insufficient salaries, etc. This means more people need these resources. There is an increase in competition for these resources and people resort to paying bribes and other evil practices in order to avail them.

(ii) **Conflict of values in our expanding economy:** In the emerging society, with its emphasis on purposively initiated processes of urbanization and industrialization, there has come about a steady weakening of the old system of values without it being replaced by an effective system of new values. Corruption thrives in such a conflict of values simply because there is no agreement on the definition of corruption.

(iii) **Acute poverty:** The co-existence of acute poverty and confounding prosperity has also eroded the integrity of the people. The Railway Corruption Enquiry Committee (1953–1955), which was presided over by Acharya J.B. Kripalani, observed:

> We believe that, so far as the disparity in emoluments of the lowest and the highest paid government employees is conceded, it should be narrowed down. It is argued that as long as the disparity between the lowest and highest paid employees in trade and industry remains high, the Government, if it tried to reduce high emoluments of its executive, will not get the requisite talent for public service…We believe that if the Government takes the initiative in reducing disparity of emoluments of its high paid and low paid employees, it will progressively reduce corruption as we march towards socialism, which has been declared to be the goal of government policy.

(iv) **Lack of strong public opinion against the evil of corruption:** Corruption is a consequence of the way of life of our acquisitive society, where people are judged by what they have rather than by what they are. The possession of material goods seems to have become the *sine qua non* of life. Thus, materialism, importance of status resulting from the possession of money and economic power, group loyalties and parochial affinities, etc. seem to be on the increase. This is because of the general apathy or inability of all sections of the society to appreciate in full, the need of strict observance of a high standard of behaviour. This has resulted in the emergence and growth of white-collared and economic crimes.

(v) **Economic necessity:** Inadequate remuneration or salary scales and the rising cost of living is probably one of the most important causes of corruption. In recent years, the ever-rising cost of living has brought down the real income of various sections of the community, particularly that of the salaried classes. It is, therefore, inevitable that government servants are the worst hit and have had to face an appreciable fall in the standard of living. The economic necessity has encouraged those who had the opportunities to succumb to temptations.

NOTES

(vi) **The structure or system of government induces corruption to influence peddlers:** Peddlers are ostensibly designated as liaison officers, public relations officers, officers on special duty, etc., or alternatively work independently as 'contact men', on commission basis. They are generally influential people who are either related, or otherwise closely connected with ministers and senior bureaucrats, or retired high government officers who are in a position to influence or bring pressure upon the concerned officers. These concerned officers are likely to be their erstwhile colleagues or subordinates.

(vii) **Complicated and cumbersome working of government offices:** It is alleged that the working of certain government departments is complicated, cumbersome and dilatory. This has encouraged the growth of dishonest practices like the system of 'speed money'. In these cases, the bribe giver generally does not wish to get anything done unlawfully, but only wants to expedite the process of movement of files and communications, relating to decisions.

(viii) **Collusion of commercial and industrial magnates, etc. to serve their individual interests:** It is not always a government servant who takes the initiative in the matter of corruption. Corruption can exist only if there is someone willing to corrupt and is capable of corrupting. Both willingness and capacity to corrupt are found in ample measure in the industrial and commercial classes.

(ix) **Non-cooperation of trade associations and Chamber of Commerce:** Unscrupulous and dishonest members of industrial and commercial classes are major impediments in the purification of public life. It is quite important to fight these unscrupulous agents of corruption so as to eliminate corruption in public services. In fact, they go together. The Trade Association, the State Chambers of Commerce and the Federation of Indian Chambers of Commerce could lend powerful support to the fight against corruption. However, it is not easy to achieve their cooperation.

(x) **Protection given to the public services in India:** There is too much security of tenure accorded to the bureaucracy by requiring that no public servant shall be dismissed or removed by an authority, subordinate to that by which he was appointed. And further, no such person shall be dismissed, or removed, or reduced in rank until he has been given a reasonable opportunity of showing cause against the action proposed to be taken in regard to him.

(xi) **Lack of severe punishment for the offenders:** Anti-corruption laws in India are weak and do not empower the people since there is an absolute lack of penalties for corrupt bureaucrats.

(xii) **Get-rich-quick attitude of the masses:** The attitude of get-rich-quick has crept into the Indian society. This has resulted in several frauds, crimes and corrupt practices, especially among the youth.

(xiii) **Cut-throat competition:** Banks, political parties, companies, educational institutes–all social organizations in India are competing to become the pioneers in their respective fields. Corruption is one of the ways in which such competition is tackled.

(xiv) **Presence of black money:** Black money refers to the amount held illegitimately by an individual, organization or party. Illegal practices such as black marketeering, smuggling of drugs and illegal objects, bribery and terrorism can lead to the accumulation of black money. The practice of not revealing the actual income for tax evasion also amounts to its amassment. Black money is often deposited in tax havens.

(xv) **System of democracy:** The system of democracy allows for public funds to be used by bureaucrats and public servants for public welfare schemes. The consortiums involved in various schemes interfere with the allocation of these funds.

(xvi) **High cost of elections:** All political parties strive hard to win voters and embark on election campaigning on a massive scale. There have been reports of the voters being bribed with liquor and money.

(xvii) **Meager salary being paid to government servants:** The public servants are paid very low salaries, and it is not easy to shun the temptation of more funds to increase one's standard of living. This is one of the reasons that corruption is seen as indispensable by government employees.

5.3.5 Other Issues

The relationship between employer and employee or trade unions is called industrial relation. Harmonious relationship is necessary for both employers and employees to safeguard the interests of the both the parties of the production. In order to maintain good relationship with the employees, the main functions of every organization should be to avoid any dispute with them or settle it as early as possible so as to ensure industrial peace and higher productivity. Personnel management is mainly concerned with the human relation in industry because the main theme of personnel management is to get the work done by the human power and it fails in its objectives if good industrial relation is maintained. In other words, good industrial relation means industrial peace which is necessary for better and higher productions.

Definition

(i) Industrial relation is that part of management which is concerned with the manpower of the enterprise – whether machine operator, skilled worker or manager.

(ii) Industrial relation is a relation between employer and employees, employees and employees and employees and trade unions. - Industrial dispute Act 1947.

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(iii) While moving from jungle of the definitions here, industrial relation is viewed as the 'process by which people and their organizations interact at the place of work to establish the terms and conditions of employment.'

The industrial relation relations also called as labour-management, employee-employers relations.

A few notable features pertaining to industrial relations are as under:

1. Industrial relation do not emerge in vacuum, they are born of employment relationship in an industrial setting. Without the existence of the two parties, i.e., labour and management, this relationship cannot exist. It is the industry, which provides the environment for industrial relations.
2. Industrial relations are characterized by both conflict and co-operations. This is the basis of adverse relationship. So the focus of industrial relations in on the study of the attitudes, relationships, practices and procedure developed by the contending parties to resolve or at least minimize conflicts.
3. As the labour and management do not operate in isolations but are parts of large system, so the study of industrial relation also includes vital environment issues like technology of the workplace, country's socio-economic and political environment nation's labour policy, attitude of trade unions workers and employers.
4. Industrial relation also involve the study of conditions conductive to the labour, managements co-operations as well as the practices and procedures required to elicit the desired co-operation from both the parties.
5. Industrial relations also study the laws, rules regulations agreements, awards of courts, customs and traditions, as well as policy framework laid down by the governments for eliciting co-operations between labour and management. Besides this, it makes an in-depth analysis of the interference patterns of the executive and judiciary in the regulations of labour–managements relations.

In fact, the concepts of industrial relations are very broad-based, drawing heavily from a variety of discipline like social sciences, humanities, behavioural sciences, laws, etc.

In fact, industrial relation encompasses all such factors that influence behaviour of people at work. A few such important factors are details below:

1. **Institution:** It includes government, employers, trade unions, unions federations or associations, government bodies, labour courts, tribunals and other organizations which have direct or indirect impact on the industrial relations systems.

2. **Characters:** It aims to study the role of workers unions and employers' federations officials, shop stewards, industrial relations officers/manager, mediator/ conciliators/arbitrator, judges of labour court, tribunal, etc.
3. **Methods:** Focus on collective bargaining, workers' participation in the industrial relation schemes, discipline procedure, grievance re-dressal machinery, dispute settlements machinery working of closed shops, union reorganization, organizations of protests through methods like revisions of existing rules, regulations, policies, procedures, hearing of labor courts, tribunals, etc.
4. **Contents:** Includes matter pertaining to employment conditions like pay, hours of works, leave with wages, health, and safety disciplinary actions, lay-off, dismissals retirements, etc., laws relating to such activities, regulations governing labour welfare, social security, industrial relations, issues concerning with workers' participation in management, collective bargaining, etc.

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Objectives of Industrial Relations

(a) To safeguard the interest of labour and management by securing the highest level of mutual understanding and good-will among all those sections in the industry which participate in the process of production.

(b) To avoid industrial conflict or strife and develop harmonious relations, which are an essential factor in the productivity of workers and the industrial progress of a country.

(c) To raise productivity to a higher level in an era of full employment by lessening the tendency to high turnover and frequency absenteeism.

(d) To establish and nurse the growth of an industrial democracy based on labour partnership in the sharing of profits and of managerial decisions, so that ban individuals personality may grow its full stature for the benefit of the industry and of the country as well.

(e) To eliminate, as far as is possible and practicable, strikes, lockouts and gheraos by providing reasonable wages, improved living and working conditions, said fringe benefits.

(f) To establish government control of such plants and units as are running at a loss or in which productions has to be regulated in the public interest.

(g) Improvements in the economic conditions of workers in the existing state of industrial managements and political government.

(h) Control exercised by the state over industrial undertaking with a view to regulating production and promoting harmonious industrial relations.

(i) Socializations or rationalization of industries by making he state itself a major employer

(j) Vesting of a proprietary interest of the workers in the industries in which they are employed

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Main aspects of industrial relations are as follows:

(i) Labour relations, i.e., relations between union and management.

(ii) Employer-employees relations, i.e., relations between management and employees.

(iii) Group relations, i.e., relations between various groups of workmen.

(iv) Community or public relations, i.e., relations between industry and society.

(v) Promotions and development of healthy labour-management relations.

(vi) Maintenance of industrial peace and avoidance of industrial strife

(vii) Development of true industrial democracy.

Effects of Poor Industrial Relations

Poor industrial relation produces highly disquieting effects on the economic life of the country. We may enumerate the ill-effects of poor industrial relations as under:

1. **Multiplier effects:** Modern industry and for that matter modern economy are interdependent. Hence although the direct loss caused due to industrial conflict in any one plant may not be very great, the total loss caused due to its multipliers effect on the total economy is always very great.
2. **Fall in normal tempo:** Poor industrial relations adversely effect the normal tempo of work so that work far below the optimum level. Costs build up. Absenteeism and labour turnover increase. Plants discipline breaks down and both the quality and quality of production suffer.
3. **Resistance of change:** Dynamic industrial situation calls for change more or less continuously. Methods have to be improved. Economics have to be introduced. New products have to be designed, produced and put in the market. Each of these tasks involves a whole chain of changes and this is resisted bitterly if these are industrial conflict.
4. **Frustration and social cost:** Every man comes to the work place not just to earn a living. He wants to satisfy his social and egoistic needs also. When he finds difficulty in satisfying these needs, he feels frustrated. Poor industrial relations take a heavy toll in terms of human frustration. They reduce cordiality and aggravate social tension.

Suggestions to Improve Industrial Relations

(a) Both management and unions should develop constructive attitudes towards each other.

(b) All basic policies and procedures relating to industrial relation should be clear to everybody in the organization and to the union leader. The personnel manager must make certain that line people will understand and agree with these policies.

(c) The personnel manager should remove any distrust by convincing the union of the company's integrity and his own sincerity and honesty. Suspicious, rumours and doubts should all be put to rest.

(d) The personnel manager should not vie with the union to gain workers, loyalty for the organization. Several research studies also confirm the idea of dual allegiance. There is strong evidence to discard the belief that one can owe allegiance to one group only.

(e) Management should encourage right kind of union leadership. While it is not for the management to interfere with union activities, or choose the union leadership; its action and attitude will go a long way towards developing the right kind of union leadership.

Importance of Industrial Relations

The healthy industrial relations are key to the progress. Their significance may be discussed as follows:

1. **Uninterrupted production** – The most important benefit of industrial relations is that this ensures continuity of production. This means, continuous employment for all from manager to workers. The resources are fully utilized, resulting in the maximum possible production. There is uninterrupted flow of income for all. Smooth running of an industry is of vital importance for several other industries; to other industries if the products are intermediaries or inputs; to exporters if these are export goods; to consumers and workers, if these are goods of mass consumption.
2. **Reduction in industrial disputes** – Good industrial relation reduce the industrial disputes. Disputes are reflections of the failure of basic human urges or motivations to secure adequate satisfaction or expression which are fully cured by good industrial relations. Strikes, lockouts, go-slow tactics, gherao and grievances are some of the reflections of industrial unrest which do not spring up in an atmosphere of industrial peace. It helps promoting co-operation and increasing production.
3. **High morale** – Good industrial relations improve the morale of the employees. Employees work with great zeal with the feeling in mind that the interest of employer and employees is one and the same, i.e., to increase production. Every worker feels that he is a co-owner of the gains of industry. The employer in his turn must realize that the gains of industry are not for him alone but they should be shared equally and generously with his workers. In other words, complete unity of thought and action is the main achievement of industrial peace. It increases the place of workers in the society and their ego is satisfied. It naturally affects production because mighty co-operative efforts alone can produce great results.
4. **Mental revolution** – The main object of industrial relation is a complete mental revolution of workers and employees. The industrial peace lies ultimately in a transformed outlook on the part of both. It is the business of

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leadership in the ranks of workers, employees and government to work out a new relationship in consonance with a spirit of true democracy. Both should think themselves as partners of the industry and the role of workers in such a partnership should be recognized. On the other hand, workers must recognize employer's authority. It will naturally have impact on production because they recognize the interest of each other.

5. **New programmes –** New programmes for workers development are introduced in an atmosphere of peace such as training facilities, labour welfare facilities, etc. It increases the efficiency of workers resulting in higher and better production at lower costs.
6. **Reduced wastage** – Good industrial relations are maintained on the basis of cooperation and recognition of each other. It will help increase production. Wastages of man, material and machines are reduced to the minimum and thus national interest is protected.

Thus, from the above discussion, it is evident that good industrial relation is the basis of higher production with minimum cost and higher profits. It also results in increased efficiency of workers. New and new projects may be introduced for the welfare of the workers and to promote the morale of the people at work.

An economy organized for planned production and distribution, aiming at the realization of social justice and welfare can function effectively only in an atmosphere of industrial peace. If the twin objectives of rapid national development and increased social justice are to be achieved, there must be harmonious relationship between management and labour.

Human Development, Environmental Issues and Sustainable Development

Human Development

The principal objective of development planning is human development and the attainment of higher standard of living for the people. This requires a more equitable distribution of development benefits and opportunities, better living environment and empowerment of the poor and marginalized. There is special need to empower women who can act as catalysts for change. In making the development process inclusive, the challenge is to formulate policies and programmes to bridge regional, social and economic disparities in as effective and sustainable a manner as possible.

The Eleventh Five Year Plan sought to address this challenge by providing a comprehensive strategy for inclusive development, building on the growing economic strength of the economy in the past decades. This strategy is going to continue and will be consolidated further in the Twelfth Five Year Plan. The Approach Paper to the Twelfth Five Year Plan (2012-17) stresses the need for more infrastructural investment with the aim of fostering a faster, sustainable and more inclusive growth.

Environmental Issues

Climate change is a global environmental problem which has been receiving intense political attention both at domestic and international levels. The United Nations Framework Convention on Climate Change (UNFCCC) defines 'climate change' as a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods. The major characteristics of climate change include rise in average global temperature, ice cap melting, changes in precipitation, and increase in ocean temperature leading to sea level rise. The efforts needed to address the climate change problem include mitigation of GHG emissions on one hand, and building of adaptive capacities on the other in developing countries to cope with the adverse impacts of climate change on various sectors of the society and economy enabled and supported by technology and finance.

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Sustainable Development

India's journey on the path of sustainable development has so far been marked both by reasons for celebration and introspection. The right place to begin the story would be the 1980s and early 1990s, which mark the beginning of economic reforms, catalyst for India's phenomenally faster growth rates since, and coinciding with a time when countries around the world acknowledged and started addressing the increasing environmental concerns, such as at the Earth Summit in Rio in 1992. India's faster gross domestic product (GDP) growth over the last two decades has been unprecedented; but at the same time India's rankings in terms of the human development index (HDI) as well as indices measuring environmental sustainability are yet to fully reflect this growth. However, it would be a mistake to downplay the enormous progress made, as India has followed a much more conscious path of sustainable development with impressive results on the ground.

Check Your Progress

3. Which is the nodal agency for estimating the number of people living below poverty line?
4. Define unemployment.

5.4 ANSWERS TO 'CHECK YOUR PROGRESS'

1. A planned economy is an economic system in which the economy is directed by the state.
2. Jawaharlal Nehru set up the Planning Commission with a Government of India resolution in March 1950

3. The Planning Commission is the nodal agency for estimating the number and proportion of people living below the poverty line at national and regional levels, separately for rural and urban areas.

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4. The state of joblessness for an able man who is willing to work is known as unemployment.

5.5 SUMMARY

- A planned economy is an economic system in which the economy is directed by the state. It is an economic system in which the central government controls industry by making major decisions regarding the production and distribution of goods and services.
- The 'Nehru-Mahalanobis' model was formulated by Prof. P. C. Mahalanobis under the guidance of Nehru.
- Rather than project a single average growth rate over the five-year period, the Twelfth Five Year Plan (2012-17) envisaged three scenarios termed as 'strong inclusive growth', 'insufficient action' and 'policy logjam'.
- The Government of India, in keeping with its reform agenda, constituted the NITI Aayog to replace the Planning Commission instituted in 1950.
- The urban poor are majorly born out of the rural poor who had migrated to urban areas in search of alternative employment and better livelihood, labourers who do a variety of casual jobs and the self-employed who sell a variety of things on roadsides and are engaged in various activities.
- Several factors, other than income and assets, are associated with poverty; for instance, the accessibility to basic education, health care, drinking water and sanitation.
- The Planning Commission, which is the nodal agency for estimating the number and proportion of people living below the poverty line at national and regional levels, separately for rural and urban areas; makes poverty estimates every five years.
- The state of joblessness for an able man who is willing to work is known as Unemployment.
- The problem of poverty—a multidimensional challenge for India—needs to be addressed seriously.
- Wholesale price index (WPI) series with 2004-05 base was released on 14 September 2010.
- Economic survey 2011-12 showed increasing food prices on account of unfavourable agricultural supply conditions coupled with the waning of base effect, leading to sharp increase in inflation.
- The prevalence of corruption in civic life is a universal experience, but recently, it has assumed alarming proportions in India.

- Corruption in India has emerged as a social incident. It is extensive, and the cases of corruption are increasing at an unbelievable pace.
- The whole infrastructure in the contemporary Indian society is built on the structure of corruption.
- The relationship between employer and employee or trade unions is called industrial relation.

5.6 KEY TERMS

- **Centralized planning:** With centralized planning, the theory is that the government will take ownership of the means of production and run the economy in the interest of workers.
- **Development**: Development is a process that creates growth, progress, positive change or the addition of physical, economic, environmental, social and demographic components.
- **Black money:** In India, black money is funds earned on the black market, on which income and other taxes have not been paid.

5.7 SELF-ASSESSMENT QUESTIONS AND EXERCISES

Short-Answer Questions

1. Write a short note on NITI Aayog.
2. What are the major jobs undertaken by rural poor?
3. What are the measures adopted by the Government of India for the eradication of poverty?
4. What are the various forms of political corruption?

Long-Answer Questions

1. Write a summary of various five-year plans in India.
2. Discuss the major reasons of poverty in India.
3. Explain the concept of inflation with reference to Indian economy.
4. What are the characteristics of corruption in India? Explain.
5. Describe the different types of corruption.

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