Study Note - 6

INDIAN ECONOMY – AN OVERVIEW

SECTION – A

This Study Note includes

6.1 MEANING OF AN UNDERDEVELOPED ECONOMY

India on the eve of 20th century is characterised by strong macro fundamentals & good performance. During the last 5 years (2005-06 to 2011-12) India's key strengths has been –

- Robust growth prospects;
- Economic liberalisation;
- Strong domestic demand;
- Strong external liquidity position;
- High saving & investment ratios;
- Strong & competitive private sectors;
- Steadily rising government revenues;
- Strong financial regulatory framework;
- Highly educated workforce or human capital; and
- Innovative society

As a result there has been a significant growth in the macroeconomic parameters, such as,

Key Parameters	2005-06	2011-12	Change
Real Gross Domestic Product(GDP)(INR Billion)	32,542	52,220	60 % Higher
Real Per Capita GDP(INR)	33,548	46,221	38 % Higher
Exports(US $ Billion)	103	303	194 % Higher

Source: Reserve Bank of India data (March 2012)

But still there is a long way to go. Barring a few countries, the PCI of a n Indian is much less as compared to most of the other countries around the world, like- USA, Japan, UK, Switzerland etc.

India still has a lot of problems, like poverty, illiteracy, child mortality etc. to fight before it becomes amongst the bests in the world to be emerging economy.

Indian Economy – An Overview

In this respect before we go for an overview of Indian economic, be first need to understand India's standing in the global structure.

(a) The concept of development:

In chapter 3 (Article 3.4 – National Income & Economic Welfare) we have already discussed that a high national Income does not always come hand in hand with economic welfare. There are other aspects also to be considered (like health, education, social & cultural prosperity, political stability etc.) coined in the term welfare. The distinction between growth & development is also similar. Growth means a quantitative improvement. Whereas development not only considers growth but also includes the aspects of human development. On this basis countries around the world can be classified in two categories – Developed Countries & Developing Countries. The term developing countries signifies that though still underdeveloped, the process of development has been initiated. Developing countries can further be subdivided into three categories as shown in the following diagram.

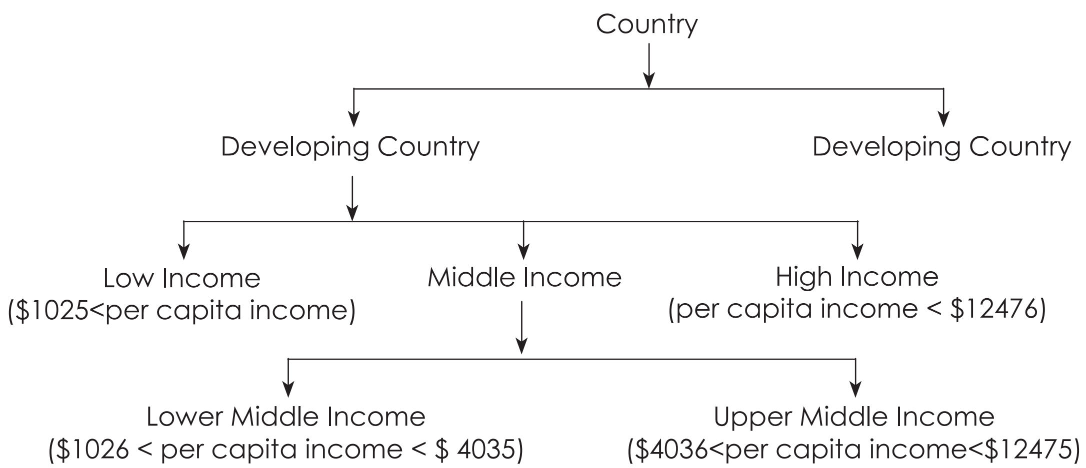

Fig 6.1

Two Asian giants marching forward on the road to development at a higher rate than the high income countries are China and India. China has already entered the upper middle income group with a GNI per capita of $ 4940 as in 2011. India is now in the lower middle income group with a GNI per capita $ 1410, which is growing @ 5.4%, where as that of China is @ 9.06%.

6.2 BASIC CHARACTERISTICS OF THE INDIAN ECONOMY AS DEVELOPING COUNTRY

India is a developing country in the lower middle income group. The basic characteristics are –

(i) **Low per capita income:** The per capita income of an Indian in 2011 was $ 1410. Barring a few countries, the per capita income (PCI) of the Indian people is the lowest in the world.

(ii) **Occupational pattern - primary producing:** One of the basic characteristics of India being an underdeveloped country is that it is primary producing. A very high proportion of working population is engaged in agriculture, about 52 per cent and its contribution to national income was only 13.9 per cent in 2011-12. Since agricultural sector is a low income earning sector and also because the productivity per person engaged in it is very low.

(iii) **Heavy Population pressure:** One of the major problems in India is the high level of birth rates which is also an evil effect of illiteracy. A positive attributive is the average life of citizen has increased which adds further to the working population. The is further identified with a falling death rate.

(iv) **Prevalence of chronic unemployment and under-employment:** In India cheap labour force is available in abundance. It is very difficult to engage in gainful employment to the entire working population, which is the result of a deficiency of capital in the country.

(v) **Steady improvement rate of capital formation:** In a country like India where the rate of population growth is 1.36 per cent (during 2011-12), about a high investment is needed to offset the additional burdens imposed by a rising population. Unless this balance is achieved, there is a danger that higher growth will only be obtained at the expense of unacceptable inflation.

(vi) **Maldistribution of Wealth/Assets:** Inequality in asset distribution is the principal cause of unequal distribution of income in the rural areas. It also signifies that the resource base of 50 per cent of the households is so weak that it can hardly provide them anything above the subsistence level of income.

(vii) **Poor quality of human capital:** Underdeveloped countries suffer from mass illiteracy. Illiteracy retards growth. A minimum level of education is necessary to acquire skills as also to comprehend social problems.

(viii) **Prevalence of low level of technology:** In India, the most modern technique exists side by side with the most primitive in the same industry, but the majority of the productive units is produced with the help of inferior techniques as judged by the modern scientific standards. The sharp differences in productivity between developed and underdeveloped nations can be traced to a considerable degree to the application of superior techniques by the former.

(ix) **Low level of living of the average Indian:** Failure to secure a balanced diet manifests in India in the low calorie intake and low level of consumption of protein. Another factor is that in India cereals predominate, but in contrast the diet in the advanced countries is rich in content because it includes fruits, fish, meat, butter and sugar. The protein intake is nearly less than half of the level prevalent in advanced countries. This results in developing less strength to fight diseases and is also partly responsible for the low level of efficiency of the Indian workers. The picture regarding housing is equally bleak.

(x) **Demographic characteristics of an underdeveloped country:** Demographic characteristics associated with underdevelopment are high density of population. Besides this, the average expectation of life is low and infant mortality rates are high. The density of population in India in 2010 was 412 per sq. Km. as compared with that in USA, which is 34. Even in China density is 143 per sq. km. obviously, a higher density imposes greater burdens on land and other natural resources.

The major problem for India is to harness the growing working age population in emerging areas of the economy, both in industry and services.

6.3 MAJOR ISSUES OF DEVELOPMENT

India is an underdeveloped though a developing economy. It is in this context that an understanding of the major issues of development should be made. The following are the major development issues in India.

(i) Low per capita income and low rate of economic growth.

(ii) High proportion of people below the poverty line.

(iii) Low level of productivity efficiency due to inadequate nutrition and malnutrition.

(iv) Imbalance between population size, resources and capital.

(v) Problem of unemployment.

(vi) Instability of output of agriculture and related sectors.

(vii) Imbalance between heavy industry and wage goods.

(viii) Imbalance in distribution and growing inequalities.

6.4 NATURAL RESOURCES IN THE PROCESS OF ECONOMIC DEVELOPMENT

The existence or the absence of favourable natural resources can facilitate or retard the process of economic development. Underdeveloped countries, embarking on programmes of economic development, "usually have to begin with and concentrate on the development of locally available natural resources as an initial condition for lifting local levels of living and purchasing power, for obtaining foreign exchange with which to purchase capital equipment, and for setting in motion the development process."

Natural resources include land, water resources, fisheries, mineral resources, forests, marine resources, climate, rainfall and topography. Some of these resources are known to man. With the growth of the knowledge about the unknown resources and their use, the natural endowment of a country is materially altered.

6.4.1 Land Resources

The total geographical area of India is about 329 million hectares, but statistical information regarding land classification is available of only about 306 million hectares; this information is based partly on village papers and partly on estimates.

6.4.2 Forest Resources

Forests are important natural resources of India. They supply timber, fuel wood, fodder and a wide range of non-wood products and thus, play an important role in environmental and economic sustainability.

6.4.3 Water Resources

Indian is one of the wettest countries in the world, with average annual rainfall of 1100 m.m.

6.4.4 Fisheries

India has a vast and diverse potential of fishing resources comprising 2 million sq. kms. of Exclusive Economic Zone for deep sea fishing, 7,520 kms. of coastline, 29,000 kms. of rivers, 1.7 million hectares of reservoirs, nearly 1 million hectares of brackish water area and 0.8 million hectares of tanks and ponds for inland and marine fish production. All these resources are waiting to be exploited fully.

6.4.5 Mineral Resources

"The development and management of mineral resources plays a major role in the industrial growth of a nation." Coal and iron, for instance, are the basic minerals needed for the growth of iron and steel industry which in turn, is vitally necessary for the country's development. There are other minerals also which are of economic importance. Then, we have mineral fuels like petroleum, coal thorium and uranium which are of national importance.

6.5 ECONOMIC DEVELOPMENT AND ENVIRONMENTAL DEGRADATION

After Independence, India launched a series of economic plans for rapid expansion in agriculture, industry, transport and other infrastructure, with a view to increase production and employment, to reduce poverty and inequality of incomes and wealth and to establish a socialist society based on equality and justice.

At the same time, because of growing population and high degree of mechanization, mindless and ruthless exploitation of natural resources. We have degraded our physical environment. Rapid economic development is actually turning India into a vast wasteland. In the following areas India is witnessing a very high level of environmental degradation caused by economic development.

(i) Deforestation caused land degradation & soil erosion.

(ii) Overgrazing ecological degradation.

(iii) Adverse environmental effects of faulty utilization of water resources.

(iv) Environmental problems arising out of mining

(v) Industrialization and atmospheric pollution.

6.6 THE ROLE OF INDUSTRIALISATION

Industrialization has a major role to play in the economic development of the underdeveloped countries. The gap in per capita incomes between the developed and underdeveloped countries is largely reflected in the disparity in the structure of their economics; the former are largely industrial economics, while in the latter production is confined predominantly to agriculture. Undoubtedly, some countries have achieved relatively high per capita incomes by virtue of their fortunate natural resources endowments. Petroleum exporting countries like Saudi-Arabia, Kuwait, and UAR have achieved higher per capita income by exploiting the strong advantage that they enjoy in international trade. But these countries are a rather special case.

In industry, the scope for internal as well as external economies is greater than in other sectors and certainly greater than in agriculture. as industrialization proceeds, economies of scale and inter-industrial linkages (complementarity) become more pronounced. It also leads to the creation of economic surplus in the hands of industrial producers for further investment.

The industrial sector which possesses a relatively high marginal propensity to save and invest contributes significantly to the eventual achievement of a self-sustaining economy with continues high levels of investment and rapid rate of increase in income and industrial employment. Besides, the process of industrialization is associated with the development of mechanical knowledge, attitudes and skills of industrial work, with experience of industrial management and with other attributes of a modern society which in turn, are beneficial to the growth of productivity in agriculture, trade, distribution and other related sectors of the economy. As a consequence of these factors, any successful transfer of labour from agriculture to industry contributes to economic development. Industrialization is thus inseparable from substantial, sustained economic development because it is both a consequence of higher incomes and a means of higher productivity.

6.7 PATTERN OF OWNERSHIP OF INDUSTRIES

The progress of industrialisation during the last 50 years since 1951 has been a striking feature of Indian economic development. The progress India has made in the field of industrialization is clearly reflected in the commodity composition of India's foreign-trade in which the share of imports of manufactured goods has steadily declined; on the other hand, industrial products, particularly engineering goods, have become a growing component of India's exports. Finally, the rapid stride in industrialization has been accompanied by a corresponding growth in technological and managerial skills for efficient operation of the most sophisticated industries and also for planning, designing and construction of such industries.

The Annual Survey of Industries has classified data about the ownership pattern for industries into three categories. In the non-corporate sector are included industrial units which are owned by individuals proprietorships, joint families (Hindu Undivided families –HUF) and partnerships. Secondly, the corporate sector is sub-divided into two sectors – (a) private corporate includes public and private limited companies; and (b) public corporate sector includes Government Departmental Enterprises and public corporations. There is third category 'others' comprising of khadi & village Industrial units e.g. sugar mills run by co-operative societies in Maharashtra etc.

6.8 ROLE & CONTRIBUTION OF SOME MAJOR INDUSTRIES IN ECONOMIC DEVELOPMENT

Now we shall consider the problems relating to the growth of six major traditional industries, namely, Iron and Steel, cotton Textiles, Jute, Sugar, Cement and Paper and 4 new industry viz. Petro-Chemicals, Automobile, Information Technology (IT) industry, and Banking & Insurance. These industries occupy an important position in the country. Their production ranges from basic producer goods, to the most important consumer goods. Thus, the growth of these industries provides a fair understanding of industrial growth on the one hand and the relationship between government policies and their growth on the other.

6.8.1 Steel Industry

From the point of view of total investment, iron and steel industry is the most important industry. Major portion of this investment is in the public sector plants. The industry provides direct employment to 2.5 lakh workers. In spite of the tremendous importance given to the iron and steel industry and the heavy investment made, our country had to import increasingly large amount of steel.

According to World Steel Association, India has been ranked among the world's top 10 producers to crude steel.

6.8.2 The (Cotton and Synthetic) Textile Industry

The structure of the textile industry is extremely complex with the modern, sophisticated and highly mechanised mill sector on the one hand and the hand spinning and hand-weaving (handloom) sector on the other; in between falls the decentralized small scale powerloom sector. If we include all the three sectors, the cotton and synthetic textile industry in India is the largest industry in the country, accounting for about 20 per cent of the industrial output, providing employment to over 20 million persons and contributing around 33 per cent of the total export earnings. The textile industry is one in which India has an opportunity for success on a global scale, given the low cost of labour.

6.8.3 The Jute Industry

The jute industry was started in 1885. Its importance to the economy lies in its capacity to earn foreign exchange. The total number of looms installed in 69 units was about 44,900 and the industry accounts for 30 per cent of the world output of jute. Besides providing direct employment to about 2.5 lakh persons, nearly 40 lakh families derive their living from jute cultivation.

Production of jute textiles was stagnant for many years despite all types of measures and incentives given by the Government. The jute industry is now modernizing its post-spinning equipment by new high speed machines and the installation of broadlooms for the manufacture of carpet backing. The industry has also taken advantage of the phenomenal growth of the demand for carpet backing cloth in the U.S. market in recent years. The entire production is exported and the principal export market is the United States. Thus, the discovery of new uses and new products should be the strategy of development in the jute industry. Some of the other specialities which are manufactured now are cotton bagging, jute tarpaulins, paper lined hessian, jute carpets and jute webbing.

6.8.4 The Sugar Industry

India was the fourth major sugar producing country in the world, the first three being Russia, Brazil and Cuba in the order. India has now emerged as the largest sugar producing country in the world, with a 22 per cent share of the world's sugar production. Sugar industry is the second largest agro-based industry in the country. It ranks third largest industry in terms of its contribution to the net value added by manufacture and employs nearly 3.25 lakh workers, besides creating extensive indirect employment for 45 million farmers of sugarcane, the various agencies of distributive trade and through subsidiary industries such as confectionary. Sugarcane cultivation accounts for 3 per cent of total cultivated area and contributes 7.5 per cent of the gross value of agricultural production. It is also an important source of excise duty for the Central Government. There are now 571 sugar factories in India with a total installed capacity of 19.2 million tonnes. Against this, 500 factories were in operation.

6.8.5 The Cement Industry

The foundation of a stable Indian cement industry was laid in 1914 when the Indian Cement Company Ltd. manufactured cement at Porbundar in Gujarat. There are 148 large cement units and 365 mini-cement plants with a total installed capacity of 230 million tonnes and actual production of nearly 200. 7 million tonnes (for the year 2009-10). Over two lakh persons are employed in the industry. India is the seventh largest cement producer in the world, the first six being Russia, Japan, USA, Italy, West Germany and France.

6.8.6 The Paper Industry

The first paper mill was set up in India more than 100 years ago. The industry operated under a protective tariff since 1925. Attracted by high profits under the protective tariff umbrella, many new paper mills were set up. During the period of planned development, the paper industry made rapid progress, India's forests providing abundant raw materials for its smooth working. Production rose from 3.5 lakh tonnes in 1960-61 to 49.6 lakh tonnes in 2009-10. The production of newsprint rose from 0.4 lakh tonnes to 10.3 lakh tonnes between 1961 and 2008-09.

The industry should be helped to optimize capacity utilization through renovation and modernization of existing large mills. In this connection, the prices fixed by the Government for various types of paper were unrealistic and did not provide for reasonable returns on capital.

6.8.7 Petrochemical industry

The development of petrochemical industry in India had its origin in and with petroleum development. The initial efforts were made through the naphtha crackers of National Organic Chemical Industries Ltd. (NOCIL) and Union Carbide of India Ltd. in the sixties. The real thrust came with the setting up of the large size unit of Indian Petrochemicals Corporation Ltd. (IPCL) at Baroda in the late seventies in the public sector. The discovery of crude oil and natural gas in the offshore region in the western coast of India has provided a new dimension to the possibility of petrochemicals expansion from the Sixth Plan onwards.

6.8.8 Automobile Industry

With the liberalization of the economy, the automobile sector witnessed robust growth. The established manufacturers were phased out and the sector witnesses the entry of new manufacturers with state-of-the-art technology. This provided confidence to manufacturers to face international competition. Competition in the market along with safety regulations on emissions have led to improvement in standards.

The automobile industry consists of passenger cars, multi-utility vehicles, commercial vehicles two wheelers and three wheelers.

6.8.9 Information Technology (IT) Industry

Information technology is of recent origin, but it is spreading fast in India. However, India has a long way to go before it can catch up with the developed countries.

In the information technology (IT) sector, outsourcing has acquired an international dimension. US firms find it more profitable to contract IT software and services in developing countries like India and China. The costs for these services in developing countries are much less than in the developed world. A recent study by McKinsey has estimated that every dollar spent on off-shoring (outsourcing) implies a cost reduction of 58 cents to US business. Thus, US firms and those in the European Union regularly carry out contracts with IT firms in India.

6.8.10 Banking Sector in India

Banking in India originated in the last decades of the 18th Century. The first banks were The General Bank of India, which started in 1786, and Bank of Hindustan, which started in 1770; both are now defunct. The oldest bank in existence in India is the State Bank of India, which originated in the Bank

of Calcutta in June 1806, which almost immediately become the Bank of Bengal. This was one of the three presidency banks, the other two being the Bank of Bombay and the Bank of Madras, all three of which were established under charters from the British East India Company. For many years the Presidency banks acted as quasi-central banks, as did their successors. The three banks merged in 1921 to from The Imperial Bank of India, which upon India's independence, become the State of India in 1955.

In 1969, The Government of India issued an ordinance ('Banking Companies (Acquisition and Transfer of Undertakings) Ordinance, 1969') and nationalized the 14 largest commercial banks with effect from the midnight of July 19, 1969. These banks contained 85 per cent of bank deposits in the country.

The IT revolution had a great impact in the Indian banking system. The use of computers had led to introduction of online banking in India.

In 1994, Committee on Technology issues relating to Payment System, Cheque Clearing and Securities Settlement in the Banking Industry (1994) was set up with chairman Shri WS Saraf, Executive Director, Reserve Bank of India. It emphasized on Electronic Funds Transfer (EFT) system, with the BANKNET communications network as its carrier. It also said that MICR clearing should be set up in all branches of all banks with more than 100 branches.

Committee for proposing Legislation on Electronic Funds Transfer and other Electronic Payment (1995) emphasized on EFT system. Electronic banking refers to Doing Banking by using technologies like computers, internet and networking, MICR, EFT so as to increase efficiency, quick service, productivity and transparency in the transaction.

Apart from the above mentioned innovations the banks have been selling the third party products like Mutual Funds, insurances to its clients. Total numbers of ATMs installed in India by various banks as on end March 2005 is 17,642.

Different Types of Banks :

Type 1. Saving Banks

Saving banks are established to create saving habit among the people. These banks are helpful for salaried people and low income groups. The deposits collected from customers are invested in bonds, securities, etc. At present most of the commercial banks carry the functions of savings banks. Postal department also performs the functions of saving bank.

Type 2. Commercial Banks

Commercial banks are established with an objective to help businessmen. These banks collect money from general public and give short-term loans to businessmen by way of cash credits, overdrafts, etc. Commercial banks provide various services like collecting cheques, bill of exchange, remittance money from one place to another place.

In India, commercial banks are established under Companies Act, 1956. In 1969, 14 commercial banks were nationalised by Government of India. The policies regarding deposits, loans, rate of interest, etc. of these banks are controlled by the Central Bank.

Type 3. Industrial Banks / Development Banks

Industrial / Development banks collect cash by issuing shares & debentures and providing long-term loans to industries. The main objective of these banks is to provide long-term loans for expansion and modernisation of industries.

In India such banks are established on a large scale after independence. They are Industrial Finance Corporation of India (IFCI), Industrial Credit and Investment Corporation of India (ICICI) and Industrial Development Bank of India (IDBI).

Type 4. Land Mortgage / Land Development Banks

Land Mortgage or Land Development banks are also known as Agricultural Banks because these are formed to finance agricultural sector. They also help in land development.

In India, Government has come forward to assist these banks. The Government has guaranteed the debentures issued by such banks. There is a great risk involved in the financing of agriculture and generally commercial banks do not take much interest in financing agricultural sector.

Type 5. Indigenous Banks

Indigenous banks means Money Lenders and Sahukars. They collect deposits from general public and grant loans to the needy persons out of their own funds as well as from deposits. These indigenous banks are popular in villages and small towns. They perform combined functions of trading and banking activities. Certain well-known indian communities like Marwaries and Multani even today run specialised indigenous banks.

Type 6. Central / Federal / National Bank

Every country of the world has a central bank. In India, Reserve Bank of India, in U.S.A, Federal Reserve and in U.K, Bank of England. These central banks are the bankers of the other banks. They provide specialised functions i.e. issue of paper currency, working as bankers of government, supervising and controlling foreign exchange. A central bank is a non-profit making institution. It does not deal with the public but it deals with other banks. The principal responsibility of Central Bank is thorough control on currency of a country.

Type 7. Co-operative Banks

In India, Co-operative banks are registered under the Co-operative Societies Act, 1912. They generally give credit facilities to small farmers, salaried employees, small-scale industries, etc. Co-operative Banks are available in rural as well as in urban areas. The functions of these banks are just similar to commercial banks.

Type 8. Exchange Banks

Hong Kong Bank, Bank of Tokyo, Bank of America are the examples of Foreign Banks working in India. These banks are mainly concerned with financing foreign trade.

Following are the various functions of Exchange Banks :-

1. Remitting money from one country to another country,
2. Discounting of foreign bills,
3. Buying and Selling Gold and Silver, and
4. Helping Import and Export Trade.

Type 9. Consumers Banks

Consumers bank is a new addition to the existing type of banks. Such banks are usually found only in advanced countries like U.S.A. and Germany. The main objective of this bank is to give loans to consumers for purchase of the durables like Motor car, television set, washing machine, furniture, etc. The consumers have to repay the loans in easy installments.

Commercial Banks in India

Commercial banks form a significant part of the country's Financial Institution System. Commercial Banks are those profit seeking institutions which accept deposits from general public and advance money to individuals like household, entrepreneurs, businessmen etc. with the prime objective of earning profit in the form of interest, commission etc. The operations of all these banks are regulated by the Reserve Bank of India, which is the central bank and supreme financial authority in India. The

main source of income of a commercial bank is the difference between these two rates which they charge to borrowers and pay to depositers. Examples of commercial banks – ICICI Bank, State Bank of India, Axis Bank, and HDFC Bank.

Classification of commercial banks

1. **Scheduled banks :** Banks which have been included in the Second Schedule of RBI Act 1934. They are categorized as follows:
   - **Public Sector Banks :** are those banks in which majority of stake is held by the government. Eg. SBI, PNB, Syndicate Bank, Union Bank of India etc.
   - **Private Sector Banks :** are those banks in which majority of stake is held by private indivisuals. Eg. ICICI Bank, IDBI Bank, HDFC Bank, AXIS Bank etc.
   - **Foreign Banks :** are the banks with Head office outside the country in which they arelocated. Eg. Citi Bank, Standard Chartered Bank, Bank of Tokyo Ltd. etc.
2. **Non scheduled commercial banks :** Banks which are not included in the Second Schedule of RBI Act 1934.

6.8.11 Insurance sector in India

Insurance is a subject listed in the Union list in the Seventh Schedule to the Constitution of India where only centre can legislate. The insurance sector has gone through a number of phases by allowing private companies to solicit insurance and also allowing foreign direct investment of up to 26%, the insurance sector has been a booming market. However, the largest life-insurance company in India is still owned by the government.

Currently India is a US$41 billion industry. Currently, in India only two million people (0.2% of the total population of 1 billion) are covered under Mediclaim, whereas in developed nations like USA about 75% to the total population are covered under some insurance scheme. With more and more private companies in the sector, the situation may change soon.

ECGC, ESIC and AIC provide insurance services for niche markets. So, their scope is limited by legislation but enjoy some special powers.

The insurance sector went through a full circle of phases from being unregulated to completely regulated and then currently being partly deregulated. It is governed by a number of acts.

The Insurance Act of 1938 was the first legislation governing all forms of insurance to provide strict state control over insurance business.

Life Insurance in India was completely nationalized on January 19, 1956, through the Life Insurance Corporation Act. All 245 insurance companies operating then in the country were merged into one entity, the Life Insurance Corporation of India.

SECTION – B

INDIAN ECONOMY – AN OVERVIEW

6.9 INFRASTRUCTURE AND ECONOMIC DEVELOPMENT

The prosperity of a country depends directly upon the development of agriculture and industry. Agriculture and industrial production requires not only machinery and equipment but also skilled manpower, management, energy, baking and insurance facilities, marketing facilities, transport services, which include railways, roads and shipping, communication facilities, etc. all these facilities collectively constitute the infrastructure of an economy.

Infrastructural facilities – often consist of Irrigation, Energy, transport, Communications, Banking, finance and insurance, Science and technology, Social overheads.

Some of these have been discussed in this chapter:

6.9.1 Private investment in infrastructure: Outlook and prospects

The Government of India has increasingly realized that infrastructure need not be a public sector monopoly. In the past, the responsibility for providing infrastructure services was vested with the Government – the reasons being : heavy capital investments, long gestation periods, externalities, high risks and low rates of return on investment. The infrastructure under government ownership and management has, however, proved thoroughly inefficient and corrupt. The demand for infrastructure facilities and services has always outpaced supply, besides, the quality of the existing supply is extremely poor.

Since 1991, Government strategy attaches high priority towards creating an enabling environment for private participation in the infrastructure sector. Besides, public – private partnership can also encourage better risk sharing, accountability, cost recovery and management of infrastructure. Some of the important steps in this direction are:

(a) The Government set up the Infrastructure Development finance Company (IDFC) in January 1997, under the Indian Companies Act, with an authorized capital of ` 5,000 crores.

(b) The Government has announced a tax holiday to companies developing, maintaining and operating infrastructure facilities, such as roads, bridges, new airports, ports and railway projects and also those dealing with water supply, sanitation and sewerage projects.

(c) The Government has permitted income tax exemption on dividend, interest or long term capital gains earned by funds or companies set up to develop, maintain and operate an infrastructure facility.

(d) The Government has raised the corpus of the National Highways Authority of India Ltd. (NHAI) by ` 200 crores to enable it to leverage funds from the domestic and international capital markets.

(e) The Government has enhanced tax rebate limits for investments in shares and debentures offered by infrastructure companies; this is to channelize domestic savings into such investments.

6.9.2 Public Private Partnership (PPP) and Infrastructure

Though the Government has been emphasizing the importance of infrastructure for the development of the economy, we witness a cut back in the investment by the government in the infrastructure. In the last few years, public private partnership in the infrastructure sector is gaining importance.

Economic Survey 2009-10, underlines the importance of PPP projects and says, "PPPs offer a number of advantages in terms of leveraging public capital to attract private capital and undertake a larger number of infrastructure projects, introducing private-sector expertise and cost-reducing technologies as well as bringing in efficiencies in operation and maintenance.

6.10 ENERGY

India is both a major energy producer and consumer. Currently, India ranks as the world's seventh largest energy producer and fifth largest energy consumer. There is a direct correlation between the degree of economic growth, the size of per capita income and per capita consumption of energy.

Renewable Energy Sources:

Conventional energy resources show clearly that they alone cannot solve India's energy crisis triggered by hike in oil prices. This has led to a search for non-conventional and renewable sources of energy in the form of biogas, solar energy, small hydro-power, wind power etc. NIRs particularly are taking up projects such as wind farms and solar plants in the states of Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh and Kerala.

Power:

Electric power, which is one from of energy, is an essential ingredient of economic development and, it is required for commercial and non-commercial uses. Commercial uses of power refer to the sue of electric power in industry, agriculture and transport for domestic lighting, cooking, use of domestic mechanical gadgets like the refrigerators, air conditioners, etc.

There are three main sources of generation of electric power, viz., hydel power thermal power, and nuclear power.

6.11 TRANSPORT SYSTEM IN INDIA'S ECONOMIC DEVELOPMENT

The transport system helps to broaden the market for goods. It is also essential for the movement of raw materials, fuel, machinery etc. , to the places of production. Transport development helps to open up remote regions and resources for production. Finally, expansion of transport facilities, in turn, helps industrialization directly. The demand for locomotives, motor vehicles, ships etc. leads to the start of industries which specialize in the production of these goods.

Indian Railways:

Originally, the Railways were operated by private companies owned by Englishmen. But now it has becomes a unified State-enterprise. It is the country's biggest nationalized, enterprise and one of the largest railway systems of the world. The Railways are now taking a major initiative in shifting to Public Private Participation (PPP) for building and operation of selected railway infrastructure. The Railways, being a public utility undertaking, have to bare a mounting social burden in the form of loss on coaching services (as for example, suburban passenger traffic) and loss on lower than cost freight rates for food grains, coal, fodder, fruits and vegetables salt, ores, etc.

Roads and Road Transport System in India:

Indian roads are classified into three types – national highways, State highways, District and rural roads. The National Highways encompass a road length of only 66.8. thousands Kms or 1.5 per cent of the length of the total road system but they carry nearly 40 per cent of the goods and passenger traffic. The national highway system is the primary road grid and is the direct responsibility of the Central Government.

The state highway account for nearly 154.5 kms. or about 3.8 per cent of the total length of roads. The construction and maintenance of these roads are the responsibility of the states.

Besides, there are rural roads constructed under Minimum needs programme (MNP), Rural Landless Employment Guarantee Programme (RLEGP), National Rural Employment programme (NREP) and command area Development (CAD). In all these cases, the objective of road construction is linking villages in the country.

Water Transport in India:

There are two kinds of water transport – inland water transport or river transport and coastal or marine transport. Inland water transport (IWT) comprising a variety of rivers, canals, backwaters, creeks etc. is the cheapest mode for certain kinds of traffic, both over long and short levels.

Civil Aviation of India:

Air transport helps optimize technological, managerial and administrative skills in a resource scare economy. There are a number of agencies which are involved in providing civil aviation services in India.

6.12 THE COMMUNICATION SYSTEM OF INDIA

The communication system comprises posts and telegraphs, telecommunication systems, broadcasting, television and information services.

Since 1950-51, the postal network has been expanded throughout the country, and in recent years, with special emphasis on the rural, hilly and remote tribal areas. With more than 1.5 lakh post offices, the postal network in India is the largest in the whole world. The postal department has given a new thrust to its programme of modernization for providing new value-added services to customers. This includes:

(a) A programme of computerized services of such postal operations as mail processing, savings bank and material management;

(b) Introduction of Metro Channel Service linking 6 metros;

(c) Introduction of Rajdhani Channel linking Delhi with most of the State Capital; and

(d) A business channel with exclusive treatment to pin coded business mail.

Telecommunications:

There has been phenomenal growth in the telecommunication sector after 1995. The telecommunications network of the public sector BSNL and MTNL.

The Government of India has set up the Telecom Regulatory Authority of India (TRAI) to determine and regulate telecom tariff.

The telecom sector has kept two important goals to deliver:

(a) Low cost voice telephony of the largest possible number of individuals; and

(b) Low-cost high speed computer networking to the largest number of firms. The progress of the telecom sector in India since 1995 has been quite impressive.

Urban Infrastructure:

Urban infrastructure includes water supply and sanitation which are important basic needs for improvement of the quality of life and enhancement of the productive efficiency of citizens. Most unban infrastructure services are provided by Municipal Corporations and Municipalities who fund their requirements largely by loans and grants from Central and State Governments. In order to supplement the efforts of urban development, the Government of India has depended upon the following agencies:-

(a) Life Insurance Corporation of India (LIC) which invests in urban infrastructure projects – like water supply, drainage, housing, power and transport – as a part of its statutory requirements;

(b) The Housing and Development Corporation Ltd.(HUDCO) is given the task of financing urban infrastructure. HUDCO provides infrastructure loans to State Urban Finance Corporations, Water Supply and Sewerage Boards, Municipal Corporations, Improvement Trusts, etc; and

(c) The Infrastructure Leasing and Financial Services Ltd. which also finances urban infrastructure projects.

Science and Technology:

For rapid economic progress, the application of science and technology (S and T) to agriculture, industry, transport and to all other economic and non-economic activities has been become essential.

The rapid growth of engineering consultancy organizations to provide design and consultancy services and act as the bridge between research institutions and industry is really commendable. India's stock of technical manpower has been growing at the rate of about 9 per cent per year for the last 20 years and is now estimated to be about 2.5 million. After USA, India today ranks second in the world as records qualified science and technology manpower.

6.13 PUBLIC PRIVATE PARTNERSHIP (PPP) MODEL

The state of infrastructure in India has been a source of concern for local and foreign investors interested in tapping its potential as a business destination. The creation of world class infrastructure would require large investments in addressing the deficit in quality and quantity. Therefore, it is necessary to explore the scope for plugging this deficit through Public Private Partnerships (PPPs) in all areas of infrastructure like roads, ports, energy, etc.

Recently, legal and regulatory changes have been made to enable PPPs in the infrastructure sector, across power, transport, and urban infrastructure.

Public Private Partnership is a joint collaboration between public and private sectors so as meet the paucity of capital investment to fulfill the requirement of infrastructural development. It has been observed worldwide that it is difficult for the private sector to meet the financial requirements of infrastructure in isolation at the same time tackling the risks inherent to building infrastructure. Therefore, the PPP model has come to represent a logical, viable and necessary option for the Government and the private sector to work together.

Public Private Partnership (PPP) project as per Government of India means a project based on a long term contract or concession agreement, between a Government or statutory entity on the one side and a private sector company on the other side, for delivering an infrastructure service on payment of user charges.

Indian infrastructure growth has reached massive heights. Most PPPs have been restricted to the roads sector. And the sector still has lot of scope and the measures are taken also by the PPPs to achieve it. Government has taken various steps to accomplish the projects successful.