

SELF LEARNING MATERIAL

M.A. ECONOMICS

COURSE : ECO - 104

(1st Semester)

**ISSUES ON INDIAN
ECONOMICS**

BLOCK - 1

**Directorate of Distance Education
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ECONOMICS

COURSE : ECO - 104

ISSUES ON INDIAN ECONOMICS

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ECONOMICS

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ISSUES ON INDIAN ECONOMICS

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ECONOMY**

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BLOCK – 1

STRUCTURE OF THE INDIAN ECONOMY

This block consists of two units. The first unit is exclusively on the basic characteristics of Indian economy, causes of backwardness and trends in national income. On the other hand the second unit deals with the resources of Indian economy.

UNIT– 1: STRUCTURE OF THE INDIAN ECONOMY

Structure

- 1.0 Objectives
- 1.1 Introduction
- 1.2 Basic characteristics of Indian economy
- 1.3 Causes of economic backwardness
 - 1.3.1 Missing five basics of growth in rural India
 - 1.3.2 Inclusive Growth – a distant reality
- 1.4 Trends in national income - growth and structure
- 1.5 Let Us Sum Up

1.0 OBJECTIVES :

After going through the unit, you shall be able to :

- Describe the vital areas where the Indian economy performed badly over the years.
- State the silver linings of the Indian economy, which are going strength to strength since the economic liberalization process started off.

1.1 INTRODUCTION

It has become extremely important for the young Indians to know about the major development issues facing the Indian economy. The economic stagnation, the vicious circle of poverty, low rate of capital formation etc which characterized the Indian economy 2 to 3 decades back are already giving place to rapidly expanding economic activities and development. The needs of the liberalized Indian economy are fast changing, due to the important structural changes taking place in the economy particularly during the 1990s and after.

1.2 BASIC CHARACTERISTICS OF INDIAN ECONOMY

Independent India inherited from the British an economy, which seemed to have crippled beyond repair. The mass people were in poverty-trap, agriculture was in the back gear and our industry was in a bad shape and eroding. However, after Independence, the government of India has taken several measures to rejuvenate the lifelines of the Indian economy by adopting economic planning, granting autonomy to the remote and backward tribal economy, making extra provisions for the SC, ST and other backward communities and building the temples (big PSUs) of India, among others.

The continuous developmental efforts of the governments produced positive results on many counts, though overall impact is still not at par. On the basis of PPP (purchasing power parity), Indian economy ranks fourth largest economy of the world. Also, in absolute terms, Indian economy has been ranked 10th among the largest economies of the world in the World Bank report of the 2004. The ten largest economies of the world are: the USA, Japan, Germany, U.K., France, Italy, China, Spain, Canada and India.

The single most important criteria for judging the level of development of a nation is the size of its per capita income enjoyed

by the population of the country. In the World Development Report 2005, on the basis of GNP per capita, the World Bank has classified the various countries into three : low income countries (per capita income is \$ 765 or lower), middle income countries (\$766 to \$9385) and high income countries (above \$ 9386).

India has been widely and variously described as a backward, underdeveloped, less developed and developing nation. The following economic indicators will say whether India economy is backward or a less developed one.

Per-capita income

India's per capita income stood at \$ 530 in 2003 (\$ 340 in 1989), as per the World Bank Report, 2005. Though Indian economy is growing its per capita income is about 1/71 of US level of per capita income.

Table - 1

Wide differences prevail in the levels of per capita income between the advanced and backward countries. (based on traditional calculations of exchange rates).

Country	GNP per capita in 2003 (US \$)
Switzerland	39880
U.S.A.	37610
Japan	34510
Denmark	33750
U.K.	28350
Canada	23930
China	1100
Sri Lanka	930
India	530
Pakistan	470
Bangladesh	400
Nepal	240

It is because of the low per capita income, many people in India live miserably, even much below the poverty line. The over

all low level of living of the mass people is reflected in the quantity and the quality of consumer goods available to them. While in the advanced nations, on an average, an individual consumes 3000 calories, in India, the average calorie consumption is around 2000. Besides, the quality of food is also inferior in the low income countries. In India the main food items are wheat, rice, pulses, etc which contain less of health-stimulating ingredients. The predominance of milk, milk products, fruits and fresh vegetables in the food pattern of advanced countries accounts for better health and greater efficiency of their people. Wide differences are also observed in clothing and living conditions between the developed and the backward countries. Compared with India, the average use of clothes in the USA and the Europe is 3 to 8 times more. About the living accommodation, whereas in India, there are on the average 7 persons to one room, in USA and U K, each person has at least a room to himself.

Under the United Nations Development Programme (UNDP), countries across the globe have been ranked on the basis of Human Development Index. It is a matter of great concern that India has been ranked at No. 127 on the basis of HDI in 2003. India has still to go a long way before it reaches some respectable level in this regard, not to speak of the standard of the developed countries.

Table - 2
Human Development Index (HDI) – 2003

Country	Life expectancy 2003	Adult literacy (%) 2003	Combined Enrolment ratio (%) 2002-03	Per capita real GDP (PPP) \$ 2003	HDI rank
Canada	80.0	99.0	94	30677	5
USA	77.4	99.0	93	37562	10
Japan	82.0	99.0	84	27967	11
France	79.5	99.0	92	27677	16
China	71.6	90.9	69	5003	85
India	63.3	61.0	60	2892	127

Disparities in income distribution

The distribution of income and wealth in India is lopsided and extremely skewed in favour of the rich. Though the objective of establishing a socialistic society was adopted far back in Second Five Year Plan but it has not yet realized. According to the NSS data, in the rural areas the bottom 50 % people owned around 8.2 % of total assets whereas the top 4 % owned around 32 % of the total assets. The income disparities are somewhat more intensive in urban areas as compared to that of the rural areas. The urban-rural divide is also growing.

Excessive dependence on agriculture

As is evident from Table 3, the advanced countries have 3 – 10 % of the population dependent on agriculture for their livelihood as against 64 % in India in the last decade. As a consequence, per capita availability of land is very low in India, while the labour used per capita is disproportionately high.

Table - 3
Percentage of Working Force engaged in agriculture and contribution of agriculture to GDP in the 1991-2000 decade

Country	Working force in agriculture	Contribution of agriculture to GDP
Australia	6	5
U.S.A.	2	3
France	8	4
New Zealand	9	11
U.K.	2	2
Canada	5	4
China	64	26
Sri Lanka	50	25
India	64	28
Pakistan	57	30
Bangladesh	70	50
Ethiopia	75	50

The Table 2 also reveals that India has not yet achieved the goal of balanced economic development. About 64 % of total labour force is dependent on agriculture, 16 % on industries and the rest about 20 % on trade, transport and other services.

Over-population

For last couple of decades, India is faced with the problem of population explosion. Relatively high birth rates and low death rates are directly contributing to the rapid growth of population in India. During 1991 – 2001, Indian population increased by 21.5 %. It means about 17 million (equal to the size of Australia) people are added to Indian population every year. Rapid growth rate of population is associated with the problem of high dependency ratio thereby consuming most of the fruits of development in the upkeep of the growing population rather than for capital formation.

Low level of productivity

The basic cause of low per capita income in India is its low human capital formation resulting in to low productivity. Nearly two-thirds of the total population can not read or write. The provision of technical education is limited because of the low allocation of resources for the growth of such institutions. As against the USA's 10 % allocation, India's expenditure on education (or health) is less than 3 %. Consequently, the agricultural output per head of the working force in advanced nations viz. USA, Australia, Canada is 25 – 40 times higher than that of India.

According to the estimates made by **Colin Clark**, an average industrial worker in the USA produces seven times more than what a worker produces in India and China. This difference is

attributed to low level of education, smaller use of machinery, obsolete machinery, etc in less developed countries.

In his 2006 address to the National Association of Manufacturers (NAM), Mr. Bush, the president of the USA highlighted the need for improvement of productivity.: ‘Let me talk about productivity for a minute – it’s kind of a concept that some may not relate to from 1973 until 1995, productivity grew at 1.4 % per year. At that rate, it would take 50 years to double the standard of living for Americans. Our economists now project that productivity will grow by 2.7 % over the long-term, and at that rate, we can double the standard of living to Americans nearly twice as fast. In other words, **the more productive a society it is, the better lifestyle our citizens will have**’.

Shortage of capital

Paucity of capital and the low rate of capital formation were the two most important detriments to rapid growth of the Indian economy till recently. However, one silver lining is that the current rate of capital formation in India is comparable or even higher than those of the developed nations. The gross domestic capital formation, which was 23.3 % in 1993-94, increased up to the level of 26.3 % in 2003-04.

As per the World Development Report, capital adequacy are indicated by the level of two vital inputs in the productive system i.e., the per capita consumption of energy and steel. In India the per capita consumption of steel was 14 kgs and energy – 226 (kgs/oil equivalence) as against respective figures of 446 and 7794 for the USA and 951 and 3624 for Japan. These figures clearly indicate India’s poor capital availability in the productive system.

Table - 4
Gross Domestic Investment (% of GDP)

Country	1960 – 64	1984 -- 90
Australia	29	21
U.S.A.	18	20
Japan	33	28
W. Germany	27	21
U.K.	19	17
Canada	23	19
China	23	30
Sri Lanka	14	24
India	17	24
Pakistan	12	18
Bangladesh	7	16
Ethiopia	12	11

Unscientific utilization of natural resources

In most of the LDCs including India natural resources have not been fully exploited because of shortage of capital and other complementary resources. Inadequate infrastructures and technical-know-how associated with high population pressure are often responsible for over-exploitation of some valuable renewable resources, leading to environmental degradation to a serious proportion. Underutilization and unsustainable use of some of the natural resources are thus other peculiarities of the LDCs. The Planning Commission of India has, in fact defined an underdeveloped economy as one. ‘which is characterized by the co-existence in greater or lesser degree of unutilized or underutilized manpower on the one hand and of unexploited natural resources on the other’. The presence of such resources suggests the potentialities of development in these countries, only if government policies are implemented with due concern to the environmental sustenance.

Dualistic economy

The economy of India is characterized by two distinct and sharply contrasted divisions. On the one hand, exist the pockets of progress observed commonly on cities and towns where industry-commerce-trade grow with state-of-the-art technology, sophisticated infrastructure and high standard of living. On the other hand, there are household industries with low capital input, out-dated agriculture, disguised unemployment and mass poverty in rural areas. To get rid of this problem of 'two-India', the PURA scheme has been introduced in India in recent times.

Chronic unemployment and underemployment

- Indian economy is characterized by the presence of high levels of disguised and open unemployment. The estimates of unemployment in India varies widely depending on the methodology adopted. It is around 30 million in the current period. Besides, around one-third of the rural workforce fall either in disguised or underemployment categories. Lack of gainful employment opportunities and poor employability of the Indian workers together were responsible for **mass poverty in rural India**. According to the World Bank report 35% of world's poor live in India. In China, only 6 % people live below the poverty line. India's position in this regard is among the worst.

Table - 5
Unemployment scenario in India in different years as per the Planning Commission

All India	Million persons			Growth per annum (%)	
	1983	1993-94	1999-2000	1983 to 1993-94	1993-94 to 1999-2000
Population	718.20	894.01	1003.97	2.00	1.95
Labour force	261.33	335.97	353.33	2.43	1.31
Workforce	239.57	315.84	336.75	2.70	1.07
Unemployment rate (%)	(8.30)	(5.99)	(7.32)		
No. of unemployed	21.76	20.13	26.58	-0.08	4.74

Emerging economic power

Slowly but steadily, Indian economy is gaining strength to become a major economic power in the world. Today, Indian economy is in a far stronger position than a few years ago, with the average growth rate in the tenth Plan being approximately 8% as compared to 5.5% in the Ninth Plan. India could achieve considerable progress in the external sector. No longer our exports predominantly constitute primary products; manufacturing items, software industry, etc is making a steady in-roads in the world market. While delivering the keynote address at the 3rd session of the Indo-US Economic Summit during September 13-14, 2006, Dr Ashwani Kumar, Minister of State for Industry quoted that the government of India aims to increase the share of manufacturing sector in GDP from 17% to 25% and eventually to 33%. Manufacturing contributes about 53% of India's exports and receives more than two-thirds of the foreign investments. He also counted the many advantages that India offers as a manufacturing hub and an investment destination. A full-fledged manufacturing facility in India can be set up at 60 – 80% of the cost in a developed market. In the following section a brief picture on the economic standing of India vis-à-vis China, ASEAN and the World is thrown:

- Growth rate (in real GDP) during 1990-2000 varies between a negative of 6 % in Russian Federation and a high of 11% in China. India's growth rate at 6% is higher than the world average.
- Inflation rate during 1990-2000 happens to be the lowest at 1 % in Japan and the highest at 137 % in Russian Federation. India's rate 9% is on the higher side.
- Unemployment rate in 1997 stood at the minimum of 2.4% in Singapore and the maximum of 11.3% in Sri Lanka. India's position in this regard is among the worst.

- On the basis of a nation's dependence on foreign loans and grants, i.e, external debt as percentage of the national income, Sri Lanka (52%) is among the most debtor nations. India's external debt to GDP ratio stands at around 25 %.
- Another yardstick would be external debt vis-à-vis international reserves. In this regard also, China is among the best with close to 1:1 in contrast to a somewhat average proportion of about 3:1 for India.
- Balance of payments' current account deficit in relation to GDP is yet another indicator of foreign intervention, and on this yardstick as well China (also Japan and Singapore) enjoys a great position with India being in a comfortable position. There is no gainsaying that while China and ASEAN nations have performed the best during the last decade or so, India is making a fairly good progress with regard to its macroeconomic goals.

15 years of economic reforms and Indian economy (As sees by the Finance Minister P. Chidambaram):

The economic reforms engine has been chugging along the growth trail, slowly but steadily since Independence. The pace and thrust of economic reforms took a quantum jump since 1991 in response to the macroeconomic and fiscal challenges facing the Indian economy at that time. A major wave of liberalization swept through the economy, starting from the industrial, trade and financial sectors. The earlier license-control raj was abolished and a bigger role was assigned to the market forces in running the economy. The focus of policy making shifted from control to facilitation, and it aimed to provide a conducive and a congenial environment for industry, trade and services to grow in.

The Indian economy is gradually and increasingly sought to be integrated with the global economy via trade, investment and capital flows.

The emphasis has been to usher in reforms with a human face. The aim of the reforms process is to help India to forge ahead not only with a high rate of economic growth, but also to ensure that the growth process generates more employment, is equitable, socially just and humane. The government aims to empower the people, especially the poor, with universal access to education and health, and facilitate their full participation in the growth process through gainful employment.

The thrust on social and human development, therefore, is an important plank of the next generation of policy reforms

The Indian economy, on average, has grown more than 8% during the last three financial years (2004-07), making it one of the fastest growing economies in the world. The much discussed and debated BRICS report identifies India as the only economy that will be capable of maintaining growth rates above 3% till the year 2050. The poverty level, which was 36% in 1993-94, has come down to about 22% in 2004-05. The Indian manufacturing sector has come of age and is making its presence felt globally in sectors such as automobile and auto components, petroleum products, steel, pharmaceuticals, textiles and leather and leather products.

The services sector, contributing about 54% of GDP has become an important driver of growth. The country's remarkable progress in developing information and communication technology (ICT) capabilities has resulted in India becoming a global leader in IT – enabled services.

Infrastructure in India has certainly improved, but there is still a lot to be achieved. Hence emphasizing on the effective public-private partnerships, given the difficulties involved in direct government provision of many infrastructure services.

Contrary to popular perceptions, India's multi-party federal democracy has actually played a key role in implementation of reforms. Irrespective of political differences, the central and state legislatures have worked together for furthering reforms. The

biggest example is this is the introduction of the state Value Added Tax. Besides, introduction of fiscal responsibility legislations in several Indian states and at the Centre, as well as definite progress on significant reform areas like electricity distribution, bears testimony to India's success in carrying forward reforms through broad political consensus.

1.3 CAUSES OF ECONOMIC BACKWARDNESS

For the rapid economic development of a nation only abundant natural resources are not sufficient. Without adequate amount of capital to harness resources, skilled manpower to handle latest technical know-how, enterprising youths, adequate infrastructure, etc, economic development is impossible.

There are many factors, which can be attributed to India's overall economic backwardness. **Scarcity of natural resources** is one such cause. India's land mass constitutes 2.4% of the earth, while it supports more than 16% of the world population. This has created the problem of over-population, over-exploitation of some of the vital natural resources leading to their permanent depletion. Shortage of natural resources may slow down the rate of growth, but to say that without them economic development is not possible, is also not correct. According to Samuelson, 'the geographical distribution of natural resources – top soil, rainfall, dimmable waters for irrigation and power, oil and ore deposits all these are important. But in a world, where trade is increasingly possible, grave deficiencies in this respect can be at least partially offset, as the examples of Denmark, Japan and Israel have shown'. In South America and Africa there are plenty of natural resources, yet these countries mostly remained underdeveloped. On the other side, the countries of Western Europe are less endowed with natural resources but even then they are prosperous and

developed. It seems that attitude towards resource utilization and entrepreneurial abilities counts more than anything else in the matter of achieving economic development.

Shortage of Capital

Another important cause of India's backwardness is paucity of capital. Smaller amount of capital leads to lower investment and consequently the volume of production remains low. Lower production results in lower income, which, in turn, reduces the capacity to save, and when savings are low, capital formation suffers and rate of economic development remains low.

The lower capital base of the country rather than the rate of capital accumulation was the main deterrent to rapid economic development of India. In India, the rate of capital formation over the last decade was substantial. A substantial portion of the capital is not being productively utilized. Much of investment takes place in unproductive channels such as purchase of house and jewellery and expenditure on wasteful social ceremonies. For instance, India consumes the highest amount of gold jewellery in the world. Therefore the cause of underdevelopment is not the paucity of capital but the wrong channelisation of the available capital supply.

The renowned economist Hernando de Soto in his book **'The Mystery of Capital'** identified 'inability to produce capital' as the major obstacle to development in the developing world. The poor here save but their assets are usually in defective forms – such as houses where ownership is not adequately recorded. These cannot be turned into capital or used as collateral. Unlike the West where every piece of asset is documented, allowing capital generation. This is one reason why the developing and communist nations are undercapitalised – **'without representation, assets are dead capital'**.

1.3.1 Missing five basics of growth in rural India

Another important cause of India's backwardness is its poor infrastructure, rural connectivity in particular. India's poverty ratio is a disgraceful 36%. It is mainly because the government has failed dismally to provide every village with the five basics of growth – all-weather roads, electricity, telecom, functioning schools and functioning health centres.

Jeffrey Sachs believes poverty can be ended 'not in the time of our grandchildren, but our time'. He advocates the 'human needs poverty approach', which questions whether people have the basics necessary to create conditions for economic growth. And one of these basics is health. As director of the Earth Institute at Columbia University, Sachs has concentrated on highlighting health concerns of the poor. He believes eradication of preventable diseases can lead to elimination of poverty and for which he has called for a global fund to fight scourges like AIDS, TB and malaria. The burden of diseases prevents societies and countries from 'getting started'.

Technological backwardness

Technological backwardness is another argument given to explain the nature of slow growth of Indian economy. The techniques of production particularly in agriculture, small-scale industries and public sector undertakings are largely outdated.

According to Schumpeter, technological change or innovation is an important determinant of progress. New machines replace old machines and increase the level of output per worker, i.e, per capital income. In fact, technical knowledge and capital are the great twin agents of increase in production and productivity. Every increase in capital needs better skills. Better skills are promoted only through more capital. The two go hand in hand. The testimony of it lies in the fact that the developed countries possess

both the capital and the skill and, therefore, their rate of growth is higher than that of the LDCs.

Again, many economists believed that technical backwardness is not the fundamental cause of economic underdevelopment. A country in the present-day world cannot remain isolated from the scientific advancements made in the others. In fact, it not the inadequacy of the new inventions and new methods of production that accounts for the economic backwardness but the basic cause here is the unwillingness of the people to use such methods in the production process.

Unfavourable social and political environment

Political instability, growing anti-social elements, terrorism, etc have been responsible for flight of capital from the disturbed areas. It has also slowed down the inflow of FDI in the country. Needless to say that cumulative investment and technological innovation require a favourable social and political environment to encourage them.

The social institutions are the greatest hindrance towards the development of the developing countries. The people of these countries are averse to accept new values created by the impact of innovations. Social attitudes limit the range of individual freedom in making economic decisions, which, in turn, influences the motives to save and invest. Money is hoarded or invested in gold, jewellery or in real estate, or is spent to meet social obligations on ceremonial occasions to maintain status. Purely academic education preferred to technical education, which results in technological backwardness.

Top-down planning

Absence of decentralized planning is another reason of economic backwardness of the country. Centralized planning fails to achieve people's participation in the nation building exercises. The fruits of development did not percolate to the grass-roots level,

among the downtrodden. The Approach Paper to the Eleventh Plan admits growing regional disparities in India. 'The are studies which show that like income distribution that exhibit increasing regional inequality, so too do the provision of social sector services'. However, even in the face of such obstacles, two states, which also did very well, were Kerala and West Bengal (neither of which experienced industrial growth nor displayed any remarkable integration with the global economy). It may be remembered that both states are politically decentralized with PRIs being politically and financially empowered long before the 73rd and the 74th Amendments were passed by parliament. West Bengal witnessed impressive growth in agriculture. Kerala in contrast to the other parts of the country, was able to deliver an impressive array of social services to its people.

Overpopulation and lack of manpower planning

Excessive growth of population has been responsible for shrinking land-man ratio, high dependency ratio, unfavourable teacher-pupil ratio, low rate of capital formulation, etc. Over population is also greatly responsible for unemployment and disguised employment (nearly one-third of the rural workforce). Disguised employment is particularly acute in the agriculture sector where the farmers and their families have insufficient land and equipment and to keep them fully employed and at the same time they are unable to find employment elsewhere. This problem can be removed by –

- Rapid industrialization
- Agricultural diversification by adopting different eco-friendly and scientific methods.
- Over-hauling educational system
- Ensuring accountability and transparency in public works. The public works should be facilitated with, as far as possible, by the grassroots level organizations.

- Population check by popularizing family welfare measures
- Raising the standard of living of the people and social legislation to ban early marriages.

Apart from the various causes of underdevelopment as mentioned above, there are many more, which account for the perpetual backwardness of these economies. Lack of financial institutions, money and capital market imperfections, caste system and joint family system, conservatism and dogmatic orthodoxy and sometimes, deliberate neglect of the peripheral regions, etc have all contributed to keep these countries in a state of perpetual economic backwardness. India's north-east is a perfect example.

1.3.2 Inclusive Growth – a distant reality

Growing Socio-economic Distance between NER and all-India:

As per Centre for Policy Alternative's recent report, Assam experienced growth rate of only 2.46 per cent annually during the last decade as against 4.46 per cent for the NER and 5.98 per cent for all-India. The economic freedom indices for 20 Indian states recently measured by Bibek Debroy and Laveesh Bhandari (by emphasizing three broad sets of variables: size of government, legal structure and security of property rights and regulation of credit, labour and business) also showed Assam/NER at the bottom of the table. 'The scores show that Tamil Nadu is at the top by a significant magnitude and Assam (at the bottom), even behind Uttaranchal and Bihar ranked 19th and 18th respectively'. The rural poverty ratio has not declined considerably in the region during the post-liberalisation period. It was around 40 per cent in 1993-94 and a little lower at 36 % in 1999-2000, according to the 55th Round of NSSO.

SHGs and KCC movement still a non-starter: It is a matter of serious concern that of the cumulative number of 10 lakh

SHGs provided with bank loan till 2005, as high as 70.0 per cent were concentrated in Andhra Pradesh, Tamil Nadu, Uttar Pradesh, Uttaranchal and Karnataka. The share of the NER was negligible, i.e., less than 1%. By March 2005, nearly 96000 SHGs were formed in Assam alone, of which only 10000 have accessed financial assistance from banks. The North East states accommodates nearly 20 million asset-less as well as asset-poor, who urgently needs credit support (seed capital) for any gainful self-employment. However, till recently, merely 5 - 6 million people of the region were covered by the SHG movement.

Till 2004, 41.4 million KCCs involving credit sanctions of Rs. 98000 crore were distributed across the nation. It is a matter of concern that when the national leaders were thinking of providing KCCs to all the eligible farmers in the next couple of years, the progress of Assam was quite tardy. Less than 2 lakh cards were distributed in the state till the end of 2004. The situation of the other north east states was even more disappointing. The practice of community ownership of land in the hilly regions restricted any distribution of KCCs among the tribal people on the basis of their individual land holdings. Lack of involvement of the FMCs, poor coordination among the agricultural extension officers, bankers and the farmers, incomplete land record and the exceptionally low recovery ratio, etc. were responsible for such a poor performance.

NE-region is Starved of Funds: It is a matter of concern that local entrepreneurs are not getting adequate amount of assistance (loan) from commercial banks. In the post-liberalisation period, the region's credit-deposit ratio has steadily slipped to lower level (from about 40% in early 1990s to 26% in 2003). Between March 1994 and March 2001, the credit-deposit ratio in rural areas of NER has also declined from 50.6 per cent to 33.4 per cent. In rural area of the Southern India, the credit-deposit ratio was above 67 per cent in March 2001, though it was lower compared to 1994. The lukewarm presence of NGOs (consequently, SHGs) in larger part of the NER, limited role of the

women bodies, demoralized (superficial) local self governments, banker's indifferent attitude and poor recovery ratio, etc. were the main hurdles in getting credit from the banks.

It is a matter of great concern that, in some areas, frequent shifting of the rural bank branches to semi-urban/urban areas on the ground of insecurity to bank deposits posed by the ultras (/to liquidate the loss making branches) has been responsible for creating even more distance between the bank staff and the rural beneficiary households (potential borrowers) – affecting the frequency, size, timings and recovery of loans. This has slowed down the participation of potential local entrepreneurs in those activities, which came up because of the government's liberal and renewed economic policies.

Globalization has so far created more investment opportunities in metropolitan/big cities at the cost of rural/semi-urban/small towns. During the period of financial sector reforms the credit-deposit ratio in metropolitan/urban areas has increased significantly, at the cost of the countryside. In 1994, national credit-deposit ratio in urban areas was below 60 per cent, which increased to 70 per cent in 2001. The major beneficiary was the western region where credit-deposit ratio jumped from 55.9 per cent (1994) to 83.2 per cent in 2001. A considerable gain was also recorded by the Northern and Southern region. On the other hand, NER along with Eastern and Central regions all having low level of infrastructures are on the losing side (EPW Research Foundation 2002). The overall credit-deposit ratio in the predominantly rural NER dropped almost 10 percentage points in just 7 years, i.e., from 39 per cent in 1994 to 28 per cent in 2001 (and further dipped to 26% in 2003). This abnormally low credit-deposit ratio has resulted in a continuous liquid drainage of a few thousand crores of rupees. If the above trend continues unchecked the regional disparities may increase further thereby causing more damages to the institutional arrangements for better distribution of resources in the region.

On the one hand private investment in the NER has not increased in the post-reform period. On the other, Government has adopted a policy of phasewise withdrawal of its direct investment in certain fields. Between August 1991 to September 2001, while only 5 states viz. Maharashtra (20.7%), Gujarat (17.0%), Andhra Pradesh (11.0%), Tamil Nadu (6.4%) and Karnataka (5.0%) accounted for as high as 60.1 per cent of the proposed investment of Rs.10, 41,962 crores (Vyas 2002) at the national level, the entire NER received below one per cent of such proposals. The concentration of private investment proposals in the aforesaid five high profile states did increase further by 2 percentage points only during the last three years.

It is sad to note that the cumulative share of financial assistance disbursed by all-India financial institution up to March end 1997 again was found extremely low (Kurian 2000) for infrastructurally backward states like Assam (0.5), (NER– less than 1 %), Bihar (1.4), Orissa (1.8) as compared to Maharashtra (21.0), Gujarat (13.5) or Tamil Nadu (9.0). In the background of Government's overall shrinking role in some developmental activities, its role as a facilitator has become ever important in recent times particularly in states like that of NE-region.

The flow of agricultural credit and the average rate of recovery in the NE region were also very unsatisfactory. As per the Report of the Expert Committee of Rural Credit 2001, agricultural credit per hectare of NSA was merely Rs. 276 in Assam, Rs. 284 for the entire NE-region against Northern Region – 3765, Eastern Region – 1132, Central Region – 1605, Western Region – 2546, and Southern Region – 5340. Average rate of recovery was a meager 10 % in Assam, against 88% in Punjab, Haryana – 80%, West Bengal – 61%, UP – 66%, Gujarat – 74%, Kerala – 83% and all-India – 63%.

It can be noted that the Concurrent Evaluation Study (July 1995 – June 1996) revealed that in Assam, 52 % IRDP beneficiaries

were affected by natural calamities against all India average of 10%. Consequently, the incidence of bank loans to the flood affected villages and also, demands for loans in these villages were much less. It is very important that financial institutions, SHGs, KCC holders give priority to insurance of loan-assets including standing crops to improve the dismal recovery scenario in the region.

‘Narrow Politics’-- Deterrent to the National Cause: It is alleged that the centre is too much involved in the developmental activities of the western, southern and northern India. East and north-east is a ‘neglected zone’. Even in this large neglected zone, the north-east was the most neglected. Most unfortunately, even in the most backward north-east corner of the country, whatever little benefits could reach this region often concentrated in and around Guwahati. The sentiment is so strong so that all the political parties in the region often take the advantage of it to escape from the public criticism for their misdoings. That a large chunk of the developmental funds remains unutilized, half utilized or misutilised year after year because of the inefficiency of the government departments (or excesses of bureaucratic control) never became an issue of serious concern. The prevailing conditions may further slow down the growth of the region, which is already lagging behind the rest of India.

1.4 TRENDS IN NATIONAL INCOME - GROWTH AND STRUCTURE

The growth of India’s national income since independence until the dawn of 1980s was largely assessed in relation to the planning process. Targets fixed in the five year plans often became the benchmark for an assessment of the performance of the economy. ‘Discussions centred around identifying reasons for the deviation from the target set and the constraints on growth. The bulk of these discussions were

‘inward looking’, in the sense that there was less space for international comparisons’.

Table - 6

Annual Average Growth Rate in Various Plans (at 1993-94 prices)

Plan/Year	NNP at factor Cost	Per capita NNP
First Plan -1951-56	3.6	1.8
Second Plan – 1956-61	4.1	2.0
Third Plan – 1961-66	2.5	0.2
Three Annual Plans- 1966-69	3.8	1.5
Fourth Plan – 1969-74	3.3	1.0
Fifth Plan --1974-79	5.0	2.7
Annual Plan – 1979-80	-6.0	-8.3
Sixth Plan – 1980-85	5.4	3.2
Seventh Plan- 1985-90	5.8	3.6
Two Annual Plans – 1990-92	3.0	0.9
Eighth Plan – 1992-97	6.7	4.6
Ninth Plan – 1997-2002	5.5	3.6
Tenth Plan – 2002-07	8.0 (P)	6.0

The table 6 reveals that fifth Plan onward Indian economy achieved a higher growth rate of 5% or more, while in earlier four Plans it hovered around 3 to 3.5 % per annum (termed as Hindu Growth rate). This implies a significant departure from the past. But since then, for the two decades spanning 1981 to 2001, the growth rate was 5.6 % per annum. It was during the 10th Plan the annual growth rate of the Indian economy has nearly touched 8%.

The national income data can be employed to study important structural changes taking place in the Indian economy during the post-independence period.

GDP growth and Sectoral contribution

The composition of GDP of an economy explains the relative significance of the different producing sectors. When a country is in a state of underdevelopment, the primary sector provides the largest proportion to the GDP. As the country reaches higher stages of development, the contribution of the industrial and the services sectors gradually increases.

Table - 7
GDP Growth and Sectoral Contribution

Sector	Growth rates		Share in GDP		Sectoral Contribution to Growth	
	1981-82 to 1990-91	1991-92 to 2000-01	1981-82 to 1990-91	1991-92 to 2000-01	1981-82 to 1990-91	1991-92 to 2000-01
Primary	3.8	2.7	38.1	30.7	25.7	14.6
Secondary	7.0	5.9	22.9	24.6	28.1	25.4
Tertiary	6.7	7.6	39	44.7	46.1	60.0
GDP	5.6	5.6				

Over the last five decades, the share of primary sector in gross domestic product declined by over 50 %, which was expected during periods of structural transformation in the economy driven by rapid growth. The tertiary sector's contribution crossed 50 % of the GDP in recent years, with the secondary sector registering a marginal increase in its share. This clearly points to the emergence of a new growth pattern, mainly driven by the service sector. In the post-reform period (1990-91 to 2000-01), that the tertiary sector

accounted for 60 % of overall growth of the Indian economy, points to the lopsided nature of growth.

Table - 8

Compound growth rates of Net Domestic Product by sectors

Sector	1950-51 to 1960-61	1960-61 to 1970-71	1970-71 to 1990-91	2006-07 (P)
Primary	2.92	2.26	1.98	2.1
Secondary	5.36	5.02	4.16	8.0
Tertiary	4.69	4.96	5.68	11.0

The rate of growth of the secondary and tertiary sectors has been more than double that of the primary sector. Among the broad three sectors, the secondary sector experienced highest percentage growth during 1950s and 1960s. However, 1970 onwards, the primary sector recorded highest percentage growth to GDP. It seems that India's experience is in line with those of the other developing countries, rather than developed countries. There is a faster transition from agriculture to services, with industry lagging behind.

The fall in the growth rate of the primary sector is clearly evident, showing that the green revolution (or ever green revolution) has not been able to offset the comparative non-increase in the area under cultivation.

The rate of growth of the tertiary sector reveals a steady increase in the 50s over to the 60s and from the 60s to the 70s and thereafter.

There has been a steady fall in the growth rate of the secondary sector from the 50s to the 60s, and from the 60s to the 70s. In comparison, the tertiary sector had a steady increase in its growth rates over the past five decades. This is a clear

indication of the slackening of the rate of industrial growth in the second half of the last five decades. However, the silver lining is that during the 10th Plan period the industrial sector could register much better performance.

Share of the Rural and Urban Sectors

A classification of the economy between rural and urban areas is useful for a study of the organizational set-up of industries, the type of activities dominating the economic system in the rural and urban areas and the way of living of the population residing in areas categorized under the two groups. The latest estimates relating to distribution of domestic product by rural and urban sector are available for the year 1993-94.

The data reveal that as against 54.3% of the total NDP being contributed by the rural sector in 1993-94 (62.4% in 1970-71), its urban sector in NDP improved from 37.6% in 1970-71 to 45.7 % in 1993-94. The ratio of per capita income between rural and urban areas did increase from 2.08 in 1951 to 2.40 in 1970-71. However between 1970-71 and 1993-94, this ratio marginally declined to 2.34.

Share of the Organised and unorganized sectors in NDP

Another important way to look at the structural changes in the economy is to look at the organizational pattern of the economy. A backward traditional economy is marked more by self-employment than by employment on and households whose income from production is an unidentifiable mixture of all categories of factor shares; production for self-consumption or local exchange rather than of the market. wages and salaries; production by unincorporated enterprises, individuals The NAS divides the economy into two sectors: organized sector, which is identified

with a modern market economy and unorganized sector or traditional economy.

Table - 9

Percentage share in NDP by organized and unorganized sectors

Year	Organized sector	Unorganized sector
1960-61	25.60	74.40
1965-66	29.22	70.78
1970-71	27.72	72.28
1975-76	31.56	68.44
1979-80	35.19	64.81
1988-89	36.21	63.79
2002-03	43.30	56.70

The share of organized sector has risen from one-quarter in 1960-61 to 35.19 % in 1979-80 and still up to 43.3 % in 2002-03. Consequently, the share of unorganized sector declined from 74% to 65% and still down to 57% during the same period. The shift in the composition of NDP from the unorganized to the organized sector is a consequence of the process of development. Nevertheless, the unorganized sector not only continues to dominate the structure of the Indian economy but is also to be found in practically all sectors of industrial origin in the economy. A basic change here could influence the country considerably.

Share of public and private sector in NDP

The share of public sector in NDP has steadily increased over the years. It was only 10.66% in 1960-61 which rose to 25.9% in 1993-94. This is undoubtedly a significant change in

the structure of the economy in terms of the increased importance of the public sector in domestic activity. Between 1960-61 and 1988-89, the growth rate of the public sector was 6.0% per year, whereas that of the private sector was only 2.8%. The factors responsible for faster growth of the public sector were: setting up of heavy industries, expansion of the existing enterprises, nationalization of private banks, coal mining companies and insurance and the like.

However, in the late 1990s and thereafter, the growth rate of the public sector slowed down because of the introduction of the New Economic Policy in early 1990s. It stressed upon the economic viability aspects of PSUs. It advocated phasing out of the PSUs incurring losses and withdrawing from such sectors like consumer goods, hotels, etc. which served no social purpose and where private investments are coming.

Occupational Structure and national income

Even though bulk of the reform process in India was directed towards the industrial sector, with regard to the generation of employment, the response has been poor. There has been a little shift, mostly occurred after mid-1990s, in the employment pattern in the economy. Otherwise, the basic nature of the economy does not seem to have undergone any radical change during 70s, 80s or early 90s, with majority of the workforce employed in the primary sector, of which agriculture is the most important component. The secondary sector failed to absorb higher levels of the workforce as is evident from table 10. This blocks a Lewisian type of transformation, in which the excess labour of agriculture is absorbed by the secondary sector, of which manufacturing forms the core of activities.

Table - 10

Sectoral distribution of workforce in percent and
employment growth

Sector	1983	1987-88	1993-94	1999-2000	Growth rates		
					L	II	LII
Primary	69.22	65.70	64.60	60.50	0.32	3.18	-0.06
Secondary	13.23	15.24	14.32	15.80	4.28	2.25	2.70
Tertiary	17.55	19.06	21.08	23.70	3.08	5.64	3.03
All sectors					1.38	2.85	1.03

Note: I : denotes the period 1983 to 1987-88; **II :** 1987-88 to 1993-94 and **III :** 1993-94 to 1999-2000.

The composition of the NDP has shown a marked change in the post-independence period. The share of tertiary and secondary sectors increased, while that of the agriculture declined. Surprisingly, these trends are not brought out by the data relating to the occupational structure of the economy. Reflecting on this paradox between the composition of the domestic product and the occupational structure Dr V. K. R. V. Rao comments, 'it is this which constitutes both the problem and the paradox of Indian economic development and has led to the current controversy about growth and employment and the disillusion for increasing employment and with industrialization as a means for changing the occupational composition of the work-force. It also shows that the productivity per worker in the primary sector has not kept pace with that in the secondary sector and to a lesser extent in the tertiary sector, and the controversy reinforces about the link between growth, productivity and employment'.

1.5 LET US SUM UP

Countries are classified into advanced and backward economies according to the degree of economic progress (mainly per-capita income) that they have made. Indian economy has lower capital base, high dependency ratio and the likes. Many countries remained underdeveloped mainly due to lack of basic infrastructures, poor utilization of natural and human resources, paucity of capital, concentration of economic power in some pockets. Indian economy has already attained the take off stage. In fact, it is already on the path of high growth, producing steady structural changes. India's recent economic development episode is strikingly different than earlier in terms of magnitude and sectoral pattern, as well as the sources of growth.

Terminal Questions

- i. What is an underdeveloped economy? Briefly explain the causes of underdevelopment.
- ii. Explain the structural changes taking place in Indian economy in the recent decades.
- iii. What are the weak and strong points of the Indian economy, especially in the post-liberalisation period?

Additional Reading

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UNIT- 2 : RESOURCES OF INDIAN ECONOMY

Structure

- 2.0 Objective
- 2.1 Introduction
- 2.2 Importance of mineral resources
 - 2.2.1 Mineral resources of India
 - 2.2.2 New Mineral Policy 1993: Features, strategies and Objectives
- 2.3 Forest Resources
 - 2.3.1 Uses of forest resources
 - 2.3.2 The important causes of forest denudation/deforestation are as follows
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- 2.5 Land Resources
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- 2.6 Human Resource and its potentials
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 - 2.7.1 Causes of Population Growth
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- 2.12 Poverty and poverty alleviation programmes
- 2.13 Let Us Sum Up

UNIT 2 – RESOURCES OF INDIAN ECONOMY

Mineral, forest, water and land, Human resources and its potentials, Population – size, composition and distribution, population policy, population growth and economic development, Occupational pattern, unemployment problem, Poverty and poverty alleviation programmes.

2.0 OBJECTIVES

- Explain about the role of Mineral, forest, water, land, Human resource and its potential.
- Identify size, composition and distribution of population in India.
- Explain population policy, Occupational potency poverty and poverty alleviation programmes.

2.1 INTRODUCTION

All means of satisfying human needs, at a given time and place are resources. Two important types of resources are – renewable resources and non-renewable resources. It is important to note that extrinsic resources such as human skills, institutions, management abilities, etc can also be continuous resources if well managed.

Nature has not been very partial in the distribution of her gifts to the countries of the world. The quantity and quality of material resources do not differ widely from country to country. The major differences in the economic development of different countries should be due to the main difference in mental ability of their people and the use that is made of such ability. Thus, economic development is a combination of various factors like population, labour supply, technology, entrepreneurship, rate of substitution of non-renewable resources by the renewable resources, accumulation of capital, etc.

2.2 IMPORTANCE OF MINERAL RESOURCES

The industrial development of a country considerably depends on its access to mineral resources. Mineral resources are used and overused particularly since the onset of the Industrial Revolution. The 10th Plan document emphasized ‘the development and management of mineral resources play a major role in the industrial development of a nation’. Iron and coal, for instance, are the basic minerals needed for the growth of iron and steel industry, which in turn act as the mother industry in the industrial development process.

Any unplanned extraction of minerals immediately affects the local environment and sometimes, very seriously pollutes the overall environment in the medium to long run. Mineral resources are non-renewable resources.

The consumption of nearly all-essential minerals, both metallic and nonmetallic, is rapidly rising. Those countries of North America and especially Western Europe that industrialized earliest have almost depleted many of their indigenous supplies of basic raw materials. According to Brown (1972), ‘the rich countries, particularly the United States, Japan, and those of Western Europe, with their steadily rising consumption of minerals required to support their affluence, are becoming increasingly dependent on the poor countries with their largely unexploited mineral reserves. In Western Europe, consumption of eleven basic industrial raw materials – bauxite, copper, lead, phosphate, zinc, chrome ore, manganese ore, magnesium, nickel, tungsten and tin – exceeds production. In the case of copper, phosphate, tin, nickel, manganese ore and chrome ore, nearly all needs must now be met from imports’. This indicates the scope for expanding foreign trade in mineral resources by the less developed countries.

2.2.1 Mineral resources of India

Many countries in Asia (India, China, etc) and Europe have considerable mineral deposits. As per estimates made by Geological Survey of India, India has more than 22 types of minerals in considerably high quantity. Indian states like Rajasthan, Bihar, Orissa, West Bengal, Sikkim, Assam, Andhra Pradesh, Madhya Pradesh, Maharashtra and Karnataka have rich mineral deposits.

Ample deposits of coal, iron, barites, bauxite, mica, manganese, gypsum, chromite, dolomite and limestone are found in Indian territory. But there is a fairly long list of vital minerals like copper, tin, lead, zinc, nickel, cobalt, gold, diamond, platinum, sulphur and most of all petroleum in which India is deficient.

Table - 2.1
Mineral deposits of India

Minerals	Estimated reserve (MT)
Bauxite	2650
Coal	148791
Lignite	2100
Baryte	74
Chromite	135
Copper	580
Dolomite	39
Gold	16
Fire clay	492
Fluorspar	12
Gypsum	1249
Graphite	43
Ilmenite	54
Iron	17570
Kaolin	1040
Lead-Zinc	360
Limestone	73200
Manganese	128
Nickel	165
Tungsten	45
Silliminite	17
Others	390

It can be mentioned here that India considerably rely on thermal power projects (which contributed about 75 % of power in 1997) to meet its growing demand for power. The thermal power projects use fossil fuels, which are not only depleting fast but also contribute towards environmental pollution. The remaining life of fossil fuels in India as per the Ninth Five Year Plan shows the urgency of developing non-fossil fuel based power projects.

Table - 2.2
Life Indices of Some Important Minerals

Mineral	Recoverable as on January 1, 1996	Balance life at 2001-02 Level Production (years)*
Crude oil	727 MT	13.88
Natural gas	640 B CuM	15.38
Non-cooking coal	56772 MT	170
Cooking coal	15961 MT	314

Source: Ninth Five Year Plan (immediate source: Economic and Political Weekly, May 6, 2000. p 1660).

* The balance life of resources indicates the number of years known resources will last at current consumption rate. The balance life may be increased substantially by substituting relatively abundant resources (renewable or non-renewable) for scarce ones, technological progress and exploration and discovery.

Imports of petroleum products including crude oil are increasing dangerously for the past few decades. In fact, the petroleum imports constitute the single largest import item for India – the value of import sharply rose from Rs. 136 crores in 1970-71 to Rs, 1,34,100 crores in 2004-05.

While conservation of scarce resources such as oil, gas, and other minerals is essential, the discovery of further resources is also important. Such investigations as the Earth Resources Satellite Programme, the investigation of deep-sea mining and alternative energy programmes offer important opportunities to ensure economic development for the future. The alternative energy programme (i.e., inexhaustible resources such as solar energy, wind power, wave power, geothermal energy) in particular seeks to replace the use of oil and natural gas as sources of energy (leaving them as sources of chemicals and ‘future option value’).

2.2.2 New Mineral Policy 1993: Features, strategies and Objectives

- Throwing open the mining sector to the private sector including direct foreign investment.
- Empowering the states to grant prospecting licenses/mining leases without prior approval of the central government, with some exceptions.
- Removing the restrictions on equity holding by foreign nationals in a mining company.

Objectives and strategies

Under the new mineral policy, the government would continue exploration of the mineral wealth of the country and while doing so, special attention would be given to the development of –

- strategic minerals
 - those minerals in which India has poor or just adequate resource base, and
 - those minerals which are required for electronic and other high-tech industries.
2. to develop mineral resources taking into account the national and strategic considerations.

3. to minimize adverse effects of mineral development on the forests, environment and ecology through appropriate protective measures. Mining operations will not ordinarily be taken up in identified ecologically fragile and biologically rich areas.
4. to promote foreign trade in minerals.
5. to promote research and development in minerals.

New Mineral Policy: Areas of concerns

- The motive of the private companies to get quick and huge returns on their investment can lead to serious damage to the long-term national interests.
- There is also the temptation and pressure to over-exploit these resources for expansion of exports which may lead to the fast depletion of these resources.
- The opening up of the mineral sector to the private sector/MNCs and poor environmental regulations and monitoring activities in the country may lead to irreparable damage to the environment.

2.3 FOREST RESOURCES

The word forest generally implies a large area under heavy tree cover – an area which has evolved naturally over hundreds of years. Forest is the natural cover for our land. A good forest implies that all is well with the land, all the natural forces – water, air, soil and animal life are interacting to produce the maximum amount of living material in terms of leafy matter, timber, animal, bird, insect and reptile life. The self-renewing cycle of seeding, growth, maturity, decay, death is perpetual, and a forest, if we do not interfere with it too much, can be everlasting (Laeq Futehally, 1992).

Forests are a renewable resource, if scientifically harnessed. It contributes substantially to economic development. As per the latest report released by Forest Survey of India (State

of Forest Report 2003) out of the total area covered under forests and trees, the forest cover on the country is 678333 sq. km., which constitutes 20.64% of its geographical area.

India has a diverse range of forests: from the rainforest of Kerala in the South to the alpine pastures of Ladakh in the north, from the deserts of Rajasthan in the West to the evergreen forests in the North-east. The percentage of forestland across the Indian states varies from as low as 5 per cent to above 50 per cent in the hilly state of Arunachal Pradesh. According to the State of Forests Report 2003, Madhya Pradesh, Arunachal Pradesh and Chhattisgarh stand first, second and third in having highest forest areas of 76429, 68019 and 55998 sq. km. respectively.

Table - 2.3
Forest resources balance sheet

Country	Forest & woodland (as % of land area - 1993)	Annual average deforestation in 1000 hectre (1980-89)	Annual rate of deforestation (%) 1980 - 89	Annual average reforestation in 1000 hectre (1980-89)
India	20.8	1500	2.3	138
Brazil	57.3	3650	0.7	449
All Developing Countries	28.7	866	1.1	797
Least Developed Countries	30.7	214	0.9	6
Sub-Saharan Africa	32.6	162	0.9	11
Industrial Countries	35.1	--	--	--
World	31.3	15517	0.4	14713

Source: Human Development Report 1996.

2.3.1 Uses of forest resources

The Forests are mothers of rivers, factories of soil manufacture, sinks of carbon-di-oxide and an assured source of oxygen banks. The green-belt apart from producing food, fodder, timber and non-timber products, regenerates and improves air and soil quality ('attracts clouds' as believed by a section of the environmentalists), reduces soil erosion, improves soil fertility and helps in maintaining water table stable.

2.3.2 The important causes of forest denudation/deforestation are as follows

- Firewood collection by an ever-increasing size of population. India's forests provide an estimated 41 million cubic meters of firewood per year, yet current annual demand is thought to be 240 million cubic meters (M. A. Sabri, 1999).
- Increasing incidence of cattle grazing.
- Illegal logging.
- Faster industrial growth necessitated more and more forest products as raw materials, which have led to over exploitation/denudation of forests.
- High growth of population by increasing the absolute number of people living below the poverty line, increases their dependence on forest resources for survival needs.
- Government policy failures. For instance, 'in Karnataka, the government officially allows the mills to cut 1 60 000 tons of bamboo every year, although it has been estimated that only 130000 tons are replaced. This means that, if we were content to use 130000 tons of bamboo for paper annually, our bamboo forests would remain in good shape, and we would be able to go on making paper indefinitely' (Laeq Futehally, 1992).

- Refugee settlement. Throughout the world, ethnic conflicts were responsible for displacement of tens of millions of people, who were ultimately settled in forest land, somewhere else. In the second half of the 20th century, there were several waves of refugees coming into India seeking a home, from neighbouring countries like Bangladesh, Tibet, Sri Lanka, Burma, East Africa, etc. Mostly, these people were allotted forestland by the government (or occupied unmarked forest land).
- Mining and construction of dams which often submerge huge tracts of forestland are also responsible for loss of rich forests in many countries.
- Over exploitation and illegal cutting of indigenous forests is a matter of great concern. Lack of appropriate technology for maximum utilization of the raw materials, low recovery, poor silvicultural practices, low budgetary provision for recurrent forest operations have all hampered effective management of forest resources. As a result fuelwood, timber, plywood and carving wood are being exploited at unsustainable levels (M. A. Sabri, 1999).

A new threat to forest health is from the invasion of imported plants, which do not rightfully belong to our country. Here the exotic species' natural enemies are absent – that is, those animals, birds and insects, which feed on it. Meantime, it does not provide suitable food and shelter for the local animals, for it is strange tasting and unfamiliar. Thus, with no natural checks or enemies, it spread rapidly all through the forest, overwhelming the local vegetation (Laeq Futehally, 1992).

2.3.3 Forest and tribal people

Total forest cover in the tribal districts as per the 1997 assessment of Forest Survey of India was 41.72 million ha, which

constituted about 65.86 per cent of the total forest cover of the country.

‘Forests to tribals as water to fishes’. The tribal cultural heritages are shaped and maintained through a symbiotic relationship with forests. Based on the age-old perception of the surrounding vegetation, they demarcate plants as useful and unuseful, medicinal and non-medicinal, edible and non edible, and interact with them accordingly. Their way of life is intimately connected with forests right from birth to death (Ram Kumar Bhakat, 1990). In the time of distress/natural hazards, forests contribute 40 – 50 per cent of their income.

As said above, many tribal communities have always lived their lives entirely within forests. As the forest area shrinks and tribals are forced to become urbanised, we are in danger of losing their knowledge about edible and medicinal plants, berries, bark, roots and leaves on which they had based their life styles over the centuries (Laeq Futehally, 1992).

Some tribal groups of North-east India were seen maintaining large tracts of protected forests as sacred groves. It is a taboo for them to cut any plant or to kill animals inside the forests. However, in the race for materialistic development in very recent times, the value system permitting the nurture of such environments has been eroded considerably. Also, shifting cultivation on the hill slopes practiced by the tribals is, one of the most serious environmental concerns in recent times.

2.3.4 How to increase the forest cover

Realising the seriousness of the problem of continuous denudation of forest resources, the Indian government has fixed the target of increasing the forest and tree cover to 25 per cent by 2007 (i.e., during the 10th Plan) and 33 per cent by 2012. Joint forest management (JFM) programme has been widely adopted in many states for involving local communities in the protection and development of the degraded forests.

The primary objective of JFM is to provide a visible role to the local communities in planning, management and protection of forests and to give them a share in the benefit from these forests. On operational parameters, JFM is a concept of developing partnership between forest department and fringe forest user groups on the basis of jointly defined roles and responsibilities (Srikanta K. Panigrahi, 2004).

- All natural forests should be declared as protected forests and be managed for soil and water conservation.
- The growing needs of the ever increasing size of population for wood and fuel can not be met from the traditional forest areas. It is very important that all the vacant small pieces of land, whether public or private, are used to produce wood by planting trees.
- Every village and town must have its own particular plantation, planted and maintained by the community so that the ever-widening gap in the supply and demand for wood and fuel can be bridged in near future.
- Monoculture forests should be converted into mixed forests of multi-purpose trees.
- Community control over the forests should be re-established.
- Refugees settled in the forest areas should be involved in the participatory forest management policy.
- All illegal settlements should be evacuated from the forest areas.
- Introduction of exotic varieties should be controlled and properly monitored.
- Formation of nature club among the village youths and involvement of the youth in patrolling will help in arresting the ever-increasing problem of encroachment of forestland.
- Private sectors, particularly those industries which considerably depend upon drawing raw materials from forest, should be encouraged in afforestation scheme.
- Afforestation on a mass scale should be taken up in the denuded hilly areas, for soil and water conservation.

Table - 2.4

Status of the Joint Forest Management (JFM) in India (select states)

State	No.of JFM committees	Area under JFM (in ha)	Total No. of Families involved in JFM
Andhra Pradesh	7606	1679084	659305
Arunachal Pradesh	13	5810	766
Assam	245	6970	4674
Chhattisgarh	6412	3391305	471522
Gujarat	1237	138015	106509
Himachal Pradesh	914	111247	45230
Karnataka	2620	185000	69600
Madhya Pradesh	9203	4125837	865902
Manipur	58	10500	NA
Mizoram	129	12740	NA
Nagaland	55	150000	550
Sikkim	158	600	3268
Tamil Nadu	799	299389	147820
Tripura	160	23477	8303
Uttaranchal	7435	606608	NA
India	62890	14254846	2781336

Source: Srikanta K. Panigrahi, 2004, Yojana, August, 2004.

2.4 WATER RESOURCES

The UN Report, published ahead of the third world water forum in Kyoto, Japan, March 16 – 23, 2003 says world water reserves are drying up fast and booming population, pollution and global warming will combine to cut the average person's water supply by a third in the next 20 years.

Table - 2.5
Water consumption (in %)

Uses	World	India
Agriculture	69.0	90.0
Domestic	8.0	4.0
Industry	23.0	6.0

Major areas of concern in the sphere of water use and its overuse or misuse

- Continuous ground water depletion, i.e., degradation of water recharge structures.
- Sharp deterioration of water quality.
- Increasing incidence of water borne diseases.
- Low efficiency in water use.
- Low water recycling ratio.
- High, inefficient and distorted subsidies/price incentives.
- To assure adequate health, people need a minimum of about 100 litres of water per day for drinking, cooking, and washing. In industrialized countries people are using as much as 450 litres a day, while in the developing countries consumption is as low as 20 litres per day. *If there is scarcity of water, the ability to develop socio-culturally and economically is limited (Suresh Nautiyal, 2002). In the water scarce Loej village of Gujarat, each of the 200 families has at least one member suffering from kidney problem.*

2.4.1 Water scenario in India

India's water consumption is approximately 20 per cent of the world consumption with a per capita consumption of 297.7 cubic meters. It is more than the world average per capita consumption of 287.3 cubic meters, but considerably less than that of the industrialised countries.

About 67 per cent of the surface and ground water are reported to be available in the Indo-Gangetic alluvial basins

covering 33 per cent of the geographical area of the country as against 33 per cent of the potential in the hard rock regions occupying 67 per cent of the geographical area. Bulk of the utilizable part of surface water resource has more or less been harnessed already by 2900 major dams and 2 lakh minor dams. Except the Brahmaputra-Barak basin and the Ganga basin, almost all other river basins in India are facing water scarcity.

The Central Water Commission (CWC) has assessed India's total water availability at 2301 cu km (surface water resources -- 1869 cu km and rechargeable groundwater resources -- 432 cu km). 'Only 690 cu km of surface water resources can be utilized by storage. The storage capacity of all the completed dams (2900 major dams and 2 lakh minor dams) in India is 174 cu km (CWC 1998). This is less than the capacity of Kariba dam in Zambia/Zimbabwe (180.6 cu km), and only 12 cu km more than Aswan High Dam of Egypt. The projects under construction will have a storage capacity of about 75 cu km'. It is a fact that we are going to face water scarcity by 2050 (Table 2) even if we succeed to tap the maximum 690 cu km of surface water resources through storage (Baijal P. and Singh P K, 2000).

Some important features of **National Water Policy 2002 (NWP)** are as follows (R R Iyer, 2002):

- Water is a national asset.
- 'Water is part of a larger ecological system. Realizing the importance and scarcity attached to the fresh water, it has to be treated as an essential environment for sustaining all life forms'.
- NWP identified various means (including rainwater harvesting) through which more water resources can be made 'utilisable'.
- NWP emphasized on 'inter-basin transfers' and desalination of brackish or sea water'.
- 'Watershed management through extensive soil conservation, catchment area treatment, preservation of forests and increasing the forest cover and the construction of check-dams should be promoted. Efforts shall be to conserve the water in the catchment'.

- Appropriate reorientation/reorganization/creation of institutions for maintenance of water resource.
- ‘The involvement and participation of beneficiaries and other stakeholders (including women) should be encouraged right from the project planning stage itself’.
- It stresses the need to ‘get optimal productivity per unit of water’ and ‘reclamation of waterlogged/saline affected lands’.
- It advocated a ‘skeletal’ national resettlement and rehabilitation policy. ‘Construction and rehabilitation activities proceed simultaneously and smoothly’.
- It calls for the encouragement of ‘private sector participation in the planning, development and management of water resources projects, on the ground that this may introduce innovative ideas, generate financial resources, introduce corporate management and improve service efficiency, etc’.
- It advocates for ‘minimum flow’ in streams to stabilize river ecosystems (among others) and also mentioned about the water-sharing disputes/principles.

According to V. R. Reddy (2002) the national water policy document lacks substance, direction and seriousness in addressing the real issues pertaining to water. It narrated only the problem areas and remains almost silent on the more important aspects of how to go about tackling the problems. There are no policies so far that address the equity and management aspects of groundwater. ‘when the drinking water crisis was at its worst in Hyderabad in the summer of 2003, thousands of people were admitted in hospitals and scores of them died due to contaminated water; Coke i.e., Coca Cola drew millions of litres more water than before at only 2.5 paisa per litre for its water business. The rich man’s Indian School of Business takes about 3 – 4 lakh litres a day at a rate of only Rs. 4.00 per kilolitre (i. e. 1000 litres), whereas the domestic rate for citizens is Rs 6.00 per kilolitre’ (EPW, May 15, 2004).

This calls for a shift in a policy from supply-side management approach to a demand-side management approach, from populist approach to economic approach, from centralized approach to decentralised approach, from engineering approach to institutional approach and from fractured approach to integrated approach (V. R. Reddy, 2002).

Table - 2.6
Water requirements for different uses in India
(Quantity in BCM)

Uses	1997-98	2010	2025	2050
A. Surface Water				
Irrigation	318	339	366	463
Domestic	17	24	36	65
Industries	21	26	47	57
Power	7	15	26	56
Inland Navigation	-	7	10	15
Environment (Ecology)	-	5	10	20
Evaporation losses	36	42	50	76
Total	399	458	545	752
B. Ground Water				
Irrigation	206	218	245	344
Domestic and Municipal	13	19	26	46
Industries	9	11	20	24
Power	2	4	7	14
Total	230	252	298	428
Grand Total (A + B)	629	710	843	1180

Note: It is estimated that by 2050 AD, 22 per cent of the geographical area and 17 per cent of population of the country will be under absolute scarcity conditions having access to water availability of less than 500 cu. m per year and 70 per cent of the area and 76 per cent of population will be on the verge of affected health and economic activities with access to water availability of less than 1000 cu. m per year, which is identified as stress or scarcity level (M MN Saxena, 2003 & Yojana, February 2004).

2.4.2 Importance of underground water in the Indian economy

At present more than 85 per cent of water supplies for domestic use in rural areas and 50 per cent of water for urban and industrial areas besides 55 per cent of irrigation water requirements are being met from ground water. With agriculture contributing roughly 25 per cent of India's GDP and production from irrigated

land claiming the lion's share, a large percentage of the country's GDP is closely tied to the availability of ground water (S D Sharma, 2005).

2.4.3 Floods, Droughts and Water Management

Water resources are very unevenly distributed across the nation. At one extreme are the deserts with extremely low rainfall. On the other hand, the humid regions can receive several metres of rainfall in a year. Most of the flow is in a limited number of rivers. Most of the annual water flow may come as floods following heavy rains or the melting of snow. Unless stored in reservoirs, the water flows to the sea, often causing seasonal flooding. Later in the year, the same areas may experience drought (Rajan Nair, 2004).

'Floods normally affect 8 major river valleys spread over 40 million hectares of area in the entire country affecting nearly 260 million people. Similarly drought affects 86 million people who are spread in 14 states covering a total of 116 districts. *If we have to prevent the damage due to flood and reduce the severity of drought, we have to harness the 1500 BCM of water (which flows into the sea due to floods) and distribute it to the drought-affected areas.* We can also partly store it in proper storage system so that it can be available during non-monsoon months. If we succeed in doing all these, we will not only save the loss arising out of the damage caused to the crops, property and people by the flood (or drought) to the extent of Rs 2400 crore on an average per year, we will also save the recurring expenditure of Rs. 1200 crore incurred by the government as short term relief measure' (A.P.J. Abdul Kalam, 2005).

It is important to note that 12 per cent areas of the country receive an average rainfall of less than 610 mm (million metres) annually. Only 8 per cent areas receive more than 2500 mm of water. While some places in Meghalaya receive above 10000 mm of rainfall, the western Rajasthan receives less than 200 mm. The variability of the rainfall from month to month and year to year for

the same place is very high. Even low rainfall areas, especially in some parts of Gujarat and Rajasthan, are prone to occasional high intensity storms. Most of the precipitation occurs between June and September, above 70 per cent only in 100 hours. Thus, even those who live in areas of high rainfall (flood prone) often face drought. Thus, the solution for floods and droughts has to be sought out in tapping the annual run-off.

2.4.4 Conflicts over water

In India water rights are intricately linked with riparian laws. In the case of groundwater, property rights are not allocated equitably though they fulfill all the aspects of property rights (universality, exclusivity and transferability). Universality means that all the common resources should be ownable. In the present context, water resources are ownable (in a defacto sense, at least) but by a few individuals. This distortion in turn is resulting in appropriation externalities. Therefore, policy should promote equitable distribution of these rights. ‘The agitation against the Coca Cola bottling plant in Plachimada village in Kerala highlights an important issue – of treating public resources as commodities to be exploited for gain’. The Hindustan Coca Cola Ltd., established in 2000, uses six bore wells and two open wells in the premises for extracting between four to six lakh litres of water daily to produce its various brands of soft drinks. The result is sharp fall of drinking water in the wells in the neighbourhood, and also, the quality of water has deteriorated because of over exploitation’ (P. Venugopal, 2003). The local people moved to Court for justice. As demand for water is rising for domestic, agricultural and commercial use, and the present available source is limited, while the right to water use is not clear, the incidence of water conflicts is going to increase in near future.

Inter-state disputes over water-sharing have increased considerably with the bifurcation of some of the bigger states. The centre is embroiled in sorting out water-sharing disputes

between Andhra Pradesh and Karnataka over the Krishna waters, between Tamil Nadu and Karnataka over Cauvery, between Maharashtra and Karnataka over Godavari and between Madhya Pradesh and Gujarat over Narmada. Punjab has triggered off the latest controversy by enacting legislation terminating all inter-state river water agreements with the neighbouring states, namely Haryana, Rajasthan and Himachal Pradesh. As a result, construction of Sutlej-Yamuna Link(SYL) is being affected in spite of Supreme Court's direction. (Poonam I Kaushish, 2004).

Bangladesh is not happy with India over the issue of the Ganga water sharing. Similarly, people of North India is not happy over the issue of water sharing agreement between India and Pakistan.

For solving the water disputes, Indus Water Treaty (IWT) exists between India and Pakistan, Mahakali Treaty between India and Nepal and the Ganges Treaty between India and Bangladesh. However, there has always been a measure of dissatisfaction with these treaties for different reasons particularly in India, Pakistan and Bangladesh.

The IWT gives Pakistan rights to the waters of the Indus basin's three western rivers (the Chenab, Jhelum and Indus), while India has got rights to the waters of the three eastern rivers (the Ravi, Beas and Sutlej). Recently, for the first time in 45 years of the functioning of Indus Water Treaty (IWT) the World Bank has appointed a neutral expert to look into the issues between the parties on the Baglihar Hydroelectric Power Project (BHPP) under construction on the Chenab river in Kashmir.

2.4.5 Interlinking of rivers and potential areas of Conflicts

In a memorandum submitted by a strong group of environmentalists to the former Prime Minister Atal Bihari Bajpayee and the President of India for reconsideration of the

several issues involving the inter-linking projects it was mentioned that:

- ‘As regards drought, the primary answer has to be local; it is only thereafter, and in some very unpromising places, that the bringing in of some external water may need to be considered. Besides, the river-linking project, if implemented, will take water only to a small part of the arid or drought-prone areas; large parts of such areas will remain unserved and will have to meet their needs through the local augmentation of water availability.’
- ‘Even if we assume that the conflict at one end (i.e., in a ‘water short’ river basin) is eased by the importation of external water, we may be initiating a new conflict at the other end (the donor basin)’. The project has already led to strong objections from several states (Bihar, West Bengal, Punjab, Orissa, Andhra Pradesh, NER, etc – as the Ganga, Brahmaputra, Mahanadi and Godavari are considered as water Surplus River). ‘It appears to us that several new interstate conflicts may arise because of this project’.
- ‘In so far as some of the links in the Himalayan component are dependent on dams in Nepal or transfers from Manas, Sankosh and Brahmaputra, Nepal, Bhutan and Bangladesh will need to be consulted.... As for the the Ganga-Damodar-Subarnarekha-Mahanadi links, Bangladesh may have apprehensions and raise objections. Within India, neither Bihar nor West Bengal seems likely to take kindly upon any diversion of Ganga waters. On the other hand, if no transfers from the Ganga are envisaged, the government should make that clear to all, as there is much expectation in the southern states of waters from the north’ (Shekhar Singh, 2003).

According to published data, India is supposed to transfer about 224 BCM (billion cubic metres) of water annually from

Himalayan rivers, which is 25 per cent of the annual water endowment from the Ganga and Brahmaputra rivers. The Dhaka based Institute of Water Modelling (IWM) cautioned that any transfer of water during latter part of wet season, early part of dry season or dry season would create major problems for Bangladesh's agriculture and fisheries. It would result in a drop in river level, depletion of ground water and make navigation difficult. The healthy flow of rivers also prevents seawater incursion. If water is diverted by India, it is feared that 'almost three fourth of the Bangladesh will be affected by salinity and in turn, will trigger mass migration to the northern part of the country' (Pradip Saha, 2004). This may further aggravate the problem of immigration of Bangladeshis in to the north-eastern and eastern part of India.

According to Bandyopadhyay and Perveen (2003), the interlinking of rivers has the potential for generating four distinct types of conflicts. These are:

- i) Compensation for resettlement and rehabilitation of the displaced;
- ii) Compensation for environmental damages from the project;
- iii) Sharing the benefits and costs of the project among the states;
- iv) Cooperative management of the project in international river basins.

2.5 LAND RESOURCES

Land and water dominate the natural resource base of agriculture sector. The upper layer of the land, i.e. soil, provides habitats with a nutrient delivery system, a recycling system and a waste-disposal system. All life on earth depends on the land resource directly or indirectly as a source of food, fodder, medicines, fuelwood and materials for building shelter.

Land is the major input in agriculture. We also get the minerals for various uses from land. Undisturbed/protected land has the capacity to recycle/recharge underground water reserves. Thus, land resources are common to and linked with other

resources like water, forests, etc. Poor management of any related resource would affect land quality. On the other hand, agricultural practices directly affect the land quality.

Land is one of the worst affected (in terms of magnitude as well as intensity) among the natural resources in India. Some aggregate estimates put the extent of soil degradation at about 190 million hectares of the 297.3 million hectares (i.e., 63.9 %) of the total land area in India during the year 1994. Almost two-thirds of the land is degraded in one form or other. More importantly, the extent of degradation is not only increasing over time, but also growing at an increasing rate (V Ratna Reddy, 2003).

It means, more is extracted from land, than replaced (by nature or man). Perpetuation of this 'disinvestment' would threaten the livelihood security in the long run.

Table - 2.7
Major land use categories in India

Categories	Area (m.ha)
Cultivated land	142.00
Forest land	67.00
Non-agricultural land	20.00
Barren and pasture land	55.00
Fallow land	25.00

The pressure of increasing loss of arable land is mounting due to:

- the growing use of agricultural land for non-agricultural purposes –
 - a. more housing space required to accommodate growing population
 - b. urbanization
 - c. commercial activities/faster industrial growth
 - d. extension of railways and roadways
- increase in desert line.
- unscientific land use (India has only 2.4 per cent of the world's land but it has to support 15 per cent of the world's

human population, 20 per cent of the world's cattle population and 20 per cent of the world's goats and sheep).

2.5.1 Types of land degradation

- water erosion
- wind erosion
- physical degradation – water logging, soil crusting, compaction, desertification, etc
- chemical degradation – salinisation, sodification, acidification, nutrient removal, decrease of organic matter
- Biological degradation

2.5.2 Man-made causes of degradation

Man-made causes of degradation are as follows

- unscientific land use
- improper cropping system with no conservation measures
- excessive doses of chemical fertilizers and pesticides in commercial agriculture
- over exploitation of ground water
- indiscriminate deforestation for extension of agricultural activities, fuel wood and timber
- overgrazing
- mismanagement of canal irrigation facilities leading to water logging and land salinity, and
- shifting cultivation.

Table - 2.8

Extent of land degradation in India (in m. ha)

Kind of degradation	Year – 1990
Water and wind erosion	144.1
Water logging	8.5
Saline soil	5.5
Sodic soil	3.9
Shifting cultivation	4.9
Ravines and gullies	4.0
Total	173.6

In India, out of the total geographical area of 329 m. ha, 68 million ha are estimated to be critically degraded and another 106 m ha severely eroded. Approximately 43 m ha are non-arable and barren, including 4 m ha of ravine land (D. Gowri Sankar and R. Dhinakaran, 1997).

The Himalayan mountains with weak geological formation and the hills of western ghats and other areas of high intensity rainfall suffer from serious water erosion, while wind erosion is more prominent in the hot arid region (occupying 31.7 m ha) in Rajasthan, Gujarat and Haryana.

Extent of degradation ranges from 0.63 per cent in Manipur to over 80 per cent in the Union Territories. Among the states, Haryana has 54 per cent degraded area followed by Rajasthan, Maharashtra, Karnataka, Gujarat, etc.

In India, the nutrient (plant nutrients) loss to the tune of 5.37 to 8.40 million tonnes occurs due to soil erosion every year which depletes the soil fertility.

2.5.3 Socio-economic impact of land degradation

The visible socio-economic impact of land degradation is on agricultural productivity. The reduction in productivity of land resources has a telling effect on the socio-economic conditions of the half of the population in less developed countries. The immediate effect of land degradation includes:

- reduced crop yields (a threat to food security of the human and livestock population)
- increasing need for agricultural inputs and decreasing profits
- reduction in the value of land
- losses of water resources (lower retention rate means more run off and severity of floods)
- siltations of reservoirs, wetlands etc making water availability for domestic and commercial uses (including irrigation, power generation, etc.) scarce.

- degrade the quality of aquatic ecosystems, thereby reduce the contribution of common property resources to the total income of the people, poor people in particular.
- migration of people from rural to urban areas, often creating the problem of slum areas
- migration of working members from rural areas to urban centres in search of jobs thereby cause social disintegration
- increase in the number of environmental refugees which further creates pressure on the whatever natural resources available in the neighbourhood.

2.6 HUMAN RESOURCE AND ITS POTENTIALS

Human resources being the most significant and active factor of production, are considered to be the centre of all development processes of the economy. Human resource development in India is officially identified with social development, encompassing quality of life issues. A unique feature of the Indian view is that the range of quality-of-life issues has been widened to include culture. Similarly, there are references to ‘people’s material, cultural and spiritual development’, ‘self-respect’, ‘self-reliance’, ‘life of dignity’ and ‘a new moral code’ in official statements. Recognition is given to the total development of the individual as well as the economic and social development.

By the term human resources we mean the size of population, along with its efficiency, educational qualities, productivity, organizational abilities, and farsightedness. By human resource we mean human capital. In other words, it implies the abilities, skills, and technical know how among the population of the country.

Human capital formation is associated with investment in man and his development as a creative and productive resource. The growth of tangible capital stock depends, to a considerable extent, on human capital formation. Several studies have shown that the growth of output in advanced countries has been significantly influenced by the improvements in intangible

human qualities. 'Capital stock should be interpreted broadly to include the body of knowledge of the population and their capacity and training to use such capital stock effectively. Lack of skill and knowledge in underdeveloped countries is a severe limiting factor for economic development. An improvement in the quality of human factor is, therefore, as essential as investment in physical capital. If the human capital formation is insufficient, physical capital cannot be productively used. In fact, physical capital becomes more productive, if the supply of human capital is adequate in a country. Despite massive import of physical capital, underdeveloped countries have not been able to accelerate their rate of growth because of the insufficiency of human capital.

The existence of surplus labour in such countries is to a large extent due to the shortage of critical skills. Moreover, the shortage of skilled labour is also very acute which sometimes hampers production. This problem can be solved if human capital formation is given the due priority. Economic backwardness may be reduced through the means of material capital but the more decisive means would be through human capital' (B N Ghosh, 1985).

According to the South Commission, human resources, together with specific and technological development, could be the basis of socio-economic development of the developing countries. The Asian development bank (1989) makes statement about the 'current' and 'critical' role of human resources in the pursuit of the goals of growth and poverty alleviation. In support of this a number of studies show that social returns to investment in education are high and frequently higher than returns to physical capital.

As mentioned in the beginning, in India, HRD includes culture. There are nine interacting factors that create various cultures and each of these factors has a significant impact on HRD practice. These factors are religion, education, economics, politics, family, class structure, language, history and natural resources. Although India is committed towards development and lays great emphasis on social development, it is still included in the category

of having low human development. A lot needs to be done in the field of human resource development which includes health care (around 132 million people do not have access to health services), nutrition (daily calorie supply per capita in India is around 2395), childcare (33% infants have low birth weight), mother care (maternal mortality rate is 460 per 100000 live births), drinking water (around 186 million population lack access to safe drinking water), education (one-third of the total population can not read or write).

According to Schultz, there are five ways of developing human resources:

- health facilities and services.
- On-the-job training.
- Formally organized education at the elementary, secondary and higher levels.
- Study programs for adults, and
- Migration of individuals to changing job opportunities.

A simple addition to the size of population of a country may not lead to human resource endowment.

According to Karl Marx, man is the creator of all wealth and without man all other resources remain idle. Thus man is the central focal point of all developmental efforts of a country. Man produces wealth and wealth is produced for the use of mankind. Hence, the population of a country is a crucial factor in the development of that country. Increasing population implies additional hands to work and newer pockets to buy the newly produced goods.

However, beyond a point, the additional population becomes a drain on the country's limited resources.

2.7 POPULATION - SIZE, COMPOSITION AND DISTRIBUTION

As per UN estimates, world population currently grows at a rate of 1.2 per cent annually, which makes a net addition of 77 million people every year. Six countries account for half of that annual increment – India tops the list with 21 per cent, followed by

china – 12 per cent, Pakistan – 5 per cent, Bangladesh, Nigeria and the USA with 4 per cent each. It is evident that problem of high population growth is mainly concentrated in less developed countries of Asia, Africa and Latin America.

In terms of absolute size of population, world's five largest countries are China (127 crore), India (103 crore), the USA (28.5 crore), Indonesia (20.6 crore) and Brazil (17.2 crore).

Table - 2.9

The fifteen largest countries and their annual population increases

Rank	Country	2001 population (millions)	Rate of increase (%)
1	China	1273	0.9
2	India	1033	1.7
3	USA	285	0.6
4	Indonesia	206	1.7
5	Brazil	172	1.5
6	Pakistan	145	2.8
7	Russia	144	-- 0.7
8	Bangladesh	134	2.0
9	Japan	127	0.2
10	Nigeria	127	2.8
11	Mexico	100	1.9
12	Germany	82	--0.1
13	Vietnam	79	1.4
14	Philippines	77	2.2
15	Egypt	70	2.1

Source: Population Reference Bureau, 2001.

It is because of the unbearable pressure of increasing population, less developed countries like China and India have adopted population policy, which discourages 'large family' (sometimes even resorted to coercive methods). In contrast, in developed countries like Australia and Canada, 'large family' is considered as a positive contribution to the national economy (i.e., higher effective demand and 'future labour supply'). It is interesting to note that in the USA, Canada and Australia – all developed countries – immigrant population constituted a sizeable proportion of the total population.

The factors directly contributing to such an unprecedented growth of population are: high birth rates and low death rates. The growth of population in some countries/regions was also influenced by immigration (i.e., out-migration minus in-migration).

2.7.1 Causes of Population Growth

There are a large number of factors, which indirectly contribute to the growth of population either by affecting birth rates or death rates.

Poverty, illiteracy, lack of social security, poor health infrastructure, low acceptance/reliability of certain contraceptives etc. are responsible for high birth rates. While better distribution of essential goods, improved health services (including free primary health services, international immunization programmes), international cooperation in relief measures, continuous development of transport and communication system leading to higher institutional births, etc are responsible for lower death rates. The net result is high population growth.

Population Explosion

Population explosion refers to a situation when the growth rate of population exceeds the rate of growth of supportive capacity of the land (resources). When the population of a country begins to grow fast, it becomes very difficult to provide the large force of additional population with the basic needs of life – food, cloth, shelter and employment. The quality of life degrades. Population explosion, therefore, is a situation when population starts growing at such a faster speed that the existing known resources of a country fall short of the requirements for leading a reasonably decent life style.

In India population has been growing rapidly since 1921. It was only after 1980 that the annual growth of population in India has been, to some extent, held in check. However, as mentioned earlier, absolute increase in population in India is still the highest

among the nations. Every year, nearly 1.7 crore people are added to the total population, which is equal to the total population of Australia. Such an alarming growth of population had its impact felt on the shortages of land for agriculture, water for drinking and irrigation, landlessness, homelessness, clearing of forests for human settlement and over utilization of other renewable resources beyond their regenerative capacity.

India is following the demographic transition pattern of all developing countries from initial levels of 'high birth rate and high death rate' phase to the intermediate stage of 'high birth rate and low death rate' with high rates of population growth, -- before graduating to the 'low birth rate and low death rate' phase. Over the last two decades while the crude birth rate declined from 33.9 per thousand persons in 1981 to 25 per thousand persons in 2002, the crude death rate also declined from 12.5 per thousand persons in 1981 to 8.1 per thousand persons in 2002.

Population growth in India continues to be high on account of the following features:

- Large size of the population in the reproductive age-group (above 50 %). An addition of 417.2 million between 1991 and 2016 is anticipated despite substantial reductions in family size in several states, including those, which have already achieved replacement levels of TFR. This momentum of increase in population will continue for some more years because high TFRs in the past have resulted in a large proportion of the population being currently in their reproductive years. It is imperative that the reproductive age group adopts without further delay or exception the small family norm, for the reason that about 45 % of population increase is contributed by births above two children per family.
- Higher fertility due to unmet need for contraception (estimated contribution 20 %). India has 168 million

eligible couples, of which just 44% are currently effectively protected.

- Above 70 % of the population lives in rural areas, in about 5.5 lakh villages, many with poor communications and transport.
- Over 50% of girls marry below the age of 18, the minimum legal age of marriage, resulting in a typical reproductive pattern of ‘too early, too frequent, too many’.
- Around 33% births occur at intervals of less than 24 months, which also results in high IMR. Repeated child births are seen as an insurance against multiple infant and child deaths and accordingly, high infant mortality stymies all efforts at reducing TFR.

2.8 NATIONAL POPULATION POLICY 2000

India was the first country in the world to launch a national programme (in 1952), to emphasizing family planning to the extent necessary for reducing birth rates to stabilize the population at a level consistent with the requirement of national economy.

‘The National Population Policy 2000 focuses on 12 strategic themes to achieve the 14 socio-demographic goals by 2010. The immediate objective of the policy is to address –

- the unmet needs of contraception,
- health care infrastructure and health personnel and
- to improve integrated service delivery for basic reproductive and child health care’.

‘The medium term objective is to bring the TFR (total fertility rate – the average number of children born to a woman during her lifetime) to replacement level by 2010 through vigorous implementation of inter-sectoral operational strategies’.

‘The long term objective is to achieve a stable population by 2045 at a level consistent with the requirements of sustainable economic growth, social development and environmental protection’.

In pursuance of these objectives, 14 National Socio-Demographic Goals are formulated to be achieved by 2010:

- Making school education up to age 14 free and compulsory and reduce drop outs at primary and secondary school levels to below 20 % for both boys and girls.
- Address the unmet needs for basic reproductive and child health services, supplies and infrastructure.
- Reduce infant mortality rate to below 30 per thousand live births.
- Reduce maternal mortality ratio to below 100 per one lac live births.
- Achieve universal immunization of children against all vaccine preventable diseases.
- Promote delayed marriage for girls, not earlier than age 18 and preferably after 20 years of age.
- Achieve 80 % institutional deliveries and 100% deliveries by trained persons.
- Achieve universal access to information/counseling and services for fertility regulation and contraception with a wide basket of choices.
- Achieve 100 % registration of births, deaths, marriage and pregnancy.
- Contain the spread of Acquired Immuno deficiency Syndrome (AIDS) and promote greater integration between the management of reproductive tract infections (RTI) and sexually transmitted infections (STI) and the National AIDS Control Organisation.
- Prevent and control communicable diseases.

- Integrate Indian Systems of Medicine (ISM) in the provision of reproductive and child health services and in reaching out to households.
- Promote vigorously the small family norm to achieve replacement levels of TFR.
- Bring about convergence in implementation of related social sector programmes so that family welfare becomes a people centred programme.

The policy speaks about the formation of a National Commission on Population under the Chairmanship of Prime minister to monitor and implement population policy and to guide planning implementations.

NPP, 2000 also suggests some promotional and motivational measures to promote adoption of the small family norm. the important are –

- i. Reward Panchayat and Zila Parisads for promoting small family norm.
- ii. Incentives to adopt two child norms.
- iii. Couples below poverty line, having sterilization with not more than two living children will be eligible for health insurance plan.
- iv. Strengthening abortion facility scheme.

Some of the India's demographic achievements between 1950-51 and 1999-2000

Half a century after formulating the national family welfare programme, India has:

- Reduced crude birth rate from 40.8 in 1951 to 26.4 per thousand in 1998.
- Halved the infant mortality rate from 146 per thousand live births in 1951 to 72 in 1998.
- Quadrupled the couple protection rate from 10.4 % in 1971 to 44 % in 1999.
- Reduced crude death rate from 25 % in 1951 to 9.0 in 1998.

- Added 25 years to life expectancy from 37 years to 62 years.
- Achieved nearly universal awareness of the need for and methods of family planning and
- Reduced total fertility rate from 6.0 in 1951 to 3.3 in 1997.

Population growth and Economic development

Broadly, economic development depends on two resources, viz human resources and natural resources. The rate of growth of a country is determined by the combination of these two variables. An optimum combination of these two variables will result in the highest economic growth. It is important to note that human beings themselves have to determine the ideal combination of 'input mix'. Thus quality of human resources is an important factor for economic growth together with quantity. Similarly we find that there exist close relationship between population and labour supply, population and technology, population and capital accumulation, population and entrepreneurship and indirectly with that of population and capital-output ratio.

In developed countries like the USA, Australia, Canada, etc. rapid growth of population is regarded as one of the stimulants of economic growth. The economic significance of labour lies in the fact that labour is both producer and consumer. Increase in population means an increase in demand for goods or expansion in the size of market for goods, which promotes growth. But this may not always be true in a less developed country like India.

Population, labour supply and economic growth

The supply of labour of a country depends on the size, composition and rate of growth of population of a country. Generally 15 – 60 age group is considered as the working force of the country, which can contribute, directly in economic activities. Thus the size, composition and rate of population growth have an important bearing on the economic development

of a country. If population is too small (i.e., under-populated), it does not afford full scope for specialization or division of labour, nor a sufficient market for the goods produced in the country. The wage rate will be very high.

If population is too large, it again hampers economic development of the country. Many workers may be compelled to survive on subsistence wage. The feeding of a huge population leaves little scope for savings → investment → capital formation → continuous economic development. In other words, a large size of population / rapidly growing population aggravates the food problem, worsens the unemployment situation, adds to the number of unproductive consumers, keeps down per-capita income and labour efficiency and negatively affects capital formation.

Over 30 per cent of newly born babies in India have low birth weight, which indicates the level and spread of under-nourishment in women in India. It can be mentioned here that an average American and Russian require 800 kg and 1000 kg respectively of foodgrains per year. The great bulk of the grains is consumed indirectly in the form of meat, poultry, milk and dairy products. In India, people consume much less than 200 kg per capita per year resulting in wide spread malnutrition and partial starvation in the country. Feeding over one billion population is made more difficult by rapid population growth – over 90 per cent of additional food requirements are caused by population increases. The rest 10 per cent is due to rise in income.

In India, national income increased by 18 % in the First Plan and 20 % in the Second Plan, whereas increase in the per-capita income respectively was only 8% and 9%. Similarly, during the Tenth Plan, Indian economy grew at nearly 8 % per annum, but its per-capita growth rate was below 6%. This highlights the adverse effect of rapid growth of population, which is responsible for a far lower increase in the per capita income as compared with the increase in the national income. It also reveals the poor standard of

living of Indian people. The rapid growth of population has significantly contributed to most of the India's burning problems like unemployment, mass rural poverty, low standard of living, erosion of forest land, ethnic conflicts over land rights and environmental degradation.

Impact of population growth on environment

- In the industrialised countries, any additions to the size of population leads to further life-style induced degradation of environment. In contrast, in less developed countries, it is more in terms of poverty driven natural resource depletion.
- Growing and large size of population necessitates either extension of agricultural land into forests or intensive agriculture with higher and higher doses of chemicals, which impairs soil quality.
- Worldwide 1.3 billion people are living below poverty line (i.e., facing the problem of malnutrition). Higher rates of population growth in such situation only hamper the process of poverty alleviation.
- Water reserves are depleting worldwide due to over exploitation as necessitated by the teeming millions.
- Due to intensive cultivation, deforestation and excessive drawing of underground water, farmlands are suffering from the problem of soil erosion and desertification.
- 'World habitats that shelter endangered plants and animals are giving way to human activities and needs'.
- Half the world wetlands are destroyed for fulfilling materialistic needs. Oceans are over fished while coral reefs are dying.
- Around 80 per cent of the world's original forests were already destroyed/altered due to increasing human needs.

- This has contributed to the fast changing climate/atmosphere, which is posing a threat to our food security.
- Larger the size of population, higher will be the amount of consumption leading to generation of huge amount of solid wastes. Improper disposal of biodegradable and non-biodegradable materials, apart from degrading land, water and air, spreads diseases.
- ‘Civil conflict often emerges in societies where rapid population growth combines with environmental scarcity to undermine governments’.

2.9 OCCUPATIONAL PATTERN

According to 2001 census 58.4 % of the total workers in the country were engaged as either cultivators or agricultural labourers. A mere 4 % of them were working in household industries, while 37.52 % were employed in other industries. It is important to note that out of these 37.52% a sizeable number were engaged in agriculture related industries and are thus employed indirectly by the agriculture sector itself.

At the state level, wide disparities can be observed. The dependence on agriculture was much higher in Bihar and Chhattisgarh. In Bihar, 77.35% of the total workers were engaged directly in agriculture – 29.17% of them were cultivators while 48.18% were landless agricultural labourers. In Chhattisgarh, the respective percentages were 44.57% and 31.88%.

Kerala, Punjab, West Bengal and Tamil Nadu, in contrast, seems to have succeeded largely in diverting its work force to non-agricultural activities. For instance, only 23.26% of Kerala’s total workers were engaged in agriculture in 2001. The number was 39.36% in Punjab and 43.94% and 49.55% in West Bengal and Tamil Nadu respectively.

63.20% female workers were working as agricultural labourers in Bihar against 42.71% male workers in the same occupation. Nearly 86% of female workers in Himachal Pradesh were cultivators against 49.55% male workers were working as cultivators. In Kerala, only 4.72% female workers were cultivators while 21.99% were agricultural laboureres.

Even though bulk of the reform process in India was directed towards the industrial sector, with regard to the generation of employment, the response has been poor. There has been a little shift, mostly occurred after mid-1990s, in the employment pattern in the economy. Otherwise, the basic nature of the economy does not seem to have undergone any radical change during 70s, 80s or early 90s, with majority of the workforce employed in the primary sector, of which agriculture is the most important component. The secondary sector failed to absorb higher levels of the workforce as is evident from table 11. This blocks a Lewisian type of transformation, in which the excess labour of agriculture is absorbed by the secondary sector, of which manufacturing forms the core of activities.

Table - 2.10

Sectoral distribution of workforce and employment growth,
1983-1999-2000

Sector	1983	1987-88	1993-94	1999-2000	Growth rates		
					I	II	III
Primary	69.22	65.70	64.60	60.50	0.32	3.18	-0.06
Secondary	13.23	15.24	14.32	15.80	4.28	2.25	2.70
Tertiary	17.55	19.06	21.08	23.70	3.08	5.64	3.03
All sectors					1.38	2.85	1.03

Note: I : denotes the period 1983 to 1987-88; II : 1987-88 to 1993-94 and III : 1993-94 to 1999-2000.

The composition of the NDP has shown a marked change in the post-independence period. The share of tertiary and secondary sectors increased, while that of the agriculture declined.

Surprisingly, these trends are not brought out by the data relating to the occupational structure of the economy. Reflecting on this paradox between the composition of the domestic product and the occupational structure Dr V. K. R. V. Rao comments, 'it is this which constitutes both the problem and the paradox of Indian economic development and has led to the current controversy about growth and employment and the disillusion for increasing employment and with industrialization as a means for changing the occupational composition of the work-force. It also shows that the productivity per worker in the primary sector has not kept pace with that in the secondary sector and to a lesser extent in the tertiary sector, and the controversy reinforces about the link between growth, productivity and employment'.

2.10 UNEMPLOYMENT PROBLEM

Indian economy is characterized by the presence of high levels of disguised and open unemployment. The estimates of unemployment in India varies widely depending on the methodology adopted. It is around 30 million in the current period. Besides, around one-third of the rural workforce fall either in disguised or underemployment categories. Lack of gainful employment opportunities and poor employability of the Indian workers together were responsible for **mass poverty in rural India**.

It can be noted that on October 4, 1964, Dr V. K. R. V. Rao said that at the end of the Fifth Plan or little later, there would be no backlog of unemployed persons in India. He went a step further and said that after Fifth Plan, the planners, relieved of unemployment problem, would have to direct more and more attention to raising the level of earnings of the employed. But the problem of unemployment continues even long after the Fifth Plan.

Table - 2.11

Past and present employment/unemployment scenario in India, as per the Planning Commission

All India	Million persons			Growth per annum (%)	
	1983	1993-94	1999-2000	1983 to 1993-94	1993-94 to 1999-2000
Population	718.20	894.01	1003.97	2.00	1.95
Labour force	261.33	335.97	353.33	2.43	1.31
Workforce	239.57	315.84	336.75	2.70	1.07
Unemployment rate (%)	(8.30)	(5.99)	(7.32)		
No. of unemployed	21.76	20.13	26.58	-0.08	4.74

The Census 2001 has estimated the number of workers in the country as 40.2 crore, out of which 31.3 crore were main workers and 8.9 crore were marginal workers.

According to a NSS report, 62% of total unemployment exists in rural sector and only 38% in urban sector of our country. As per the recent NSS survey, for the working population as a whole, daily status unemployment increased from 6.1 % in 1993-94 to 7.3 % in 1999-2000 to 8.3 % in 2004-05, and was higher in 2004-05 than 1993-94 in all states except West Bengal, Assam and Gujarat. More importantly, daily status unemployment among agricultural labour households (who are the poorest) increased from 9.5 % in 1993-94 to 12.3 % in 1999-2000 and further to 15.3% in 2004-05. Yet importantly, the surveys also suggest that the growth rate of employment, at 2.85% per annum, outpaced population growth rate between 1999-2000 and 2004-05, after having been much less than population growth, at only 1.02 % per annum between 1993-94 and 1999-2000. However, most of this increase in employment during 1999-2005 was in the form of self-employed with days of wage labour actually declining.

Table - 2.12
Major statewise growth rate of unemployment
(in per cent per annum)

State	unemployment	
	1993-2000	1999-2005
Andhra Pradesh	4.9	8.2
Assam	0.4	0.8
Bihar	4.6	1.5
Gujarat	-0.8	-1.4
Haryana	-5.2	12.2
Karnataka	-0.3	13.3
Kerala	9.6	6.2
Madhya Pradesh	7.5	13.7
Maharashtra	8.0	10.9
Orissa	1.1	10.9
Punjab	7.6	25.7
Rajasthan	17.8	12.8
Tamil Nadu	0.6	2.3
Uttar Pradesh	3.2	4.3
West Bengal	13.0	-6.5

Unemployment in India is rampant not only amongst the industrial workers but it is found even among the agriculturists. Nearly two-thirds of the population in India is engaged in agriculture. But a very major part of them, unfortunately, suffer from serious underemployment – in the form of forced idleness for 4 – 6 months in the year. The problem of is also very serious amongst those seeking clerical and white-collar jobs, largely a problem of the fast growing educated middle class. Thus unemployment in India is broadly of three types: unemployment and underemployment among rural people, unemployment among industrial labour and unemployment among educated classes.

Among the major causes of unemployment are:

- Lack of balance between population growth and rate of development.

- Shortages of capital leading to poor infrastructural development.
- Slow growth of industries.
- Backwardness of agriculture.
- Defective system of education.
- Economic liberalization, disinvestment of PSUs, erosion of small-scale industries, etc have also added to the burning problem of unemployment.

Different types of unemployment in India

- i. Structural unemployment
- ii. Under employment
- iii. Disguised Unemployment
- iv. Open unemployment
- v. Educated Unemployment
- vi. Frictional Unemployment
- vii. Seasonal unemployment

2.11 CHILD LABOUR

The problem of child labour is a major social concern. The number of working children in the country declined from 2% of the total population and 6% of the total workforce in 1981 to 1.34% of the population and 3.59% of the total workforce in 1991.

The Mid term Appraisal of 10th Plan gave repeated stress on the followings so that growth of employment opportunity should exceed the growth of labour force so as to check unemployment :

- Promoting public investment in rural areas for assets creation so as to absorb unemployed labour force.
- Identification of financial sector reforms for achieving investment targets in small and medium industries.
- Large scale employment creation in construction sector for unskilled and semi-skilled labour force.
- Appropriate assistance to service sector for accelerating their development and employment creation capacity.
- Priority to agriculture processing and rural services.

Till the final year of the 10th Plan, more than 85,300 crore was spent on different employment generation schemes. The result was not very satisfactory. Critics say, 'schemes don't change. They are merely re-named, over and over again'. For instance, in 1980 Nation Rural Employment Programme (NREP) launched to use unemployed and underemployed workers to build community assets.

In 1983, Rural Landless Employment Guarantee Programme (RLEGP) was launched to provide 100 days of guaranteed employment to one member from each rural, landless household.

In 1989, Jawahar Rozgar Yojana was launched, combining NREP and RLEGP.

Again, in 1993, employment Assurance Scheme (EAS) was launched to provide employment during the lean agricultural season.

In 1999, Jawahar Gram Samridhi Yojana (JGSY) was launched: dedicated to development of demand driven rural infrastructure.

In 2001, Sampoorna Gramin Rozgar Yojana (SGRY) was launched, merging EAS and JGSY.

In 2004, Food for Work Programme (NFFWP) was launched to generate additional supplementary wage employment and create assets.

In 2006, National Rural Employment Guarantee Scheme (NREGS) launched to provide 100 days of guaranteed employment to one member from each 'BPL rural household' and create community assets. The focus of the Rural Employment Guarantee Scheme shall be on the following works:

- Water conservation and water harvesting.
- Drought proofing, including afforestation and tree plantation.
- Irrigation canals, including micro and minor irrigation works.
- Provision of irrigation facility to land owned by households belonging to the SC/ST, or to land of the beneficiaries of land reforms, or to land of the beneficiaries under the Indira Awas Yojana.
- Renovation of traditional water bodies, including de-silting of tanks.
- Land development.
- Flood-control and protection works, including drainage in waterlogged areas.
- Rural connectivity to provide all-weather access. The construction of roads may include culverts where necessary, and within the village area may be taken up along with drains.
- Any other work that may be notified by the central government in consultation with the state government.

If a worker who has applied for work under NREGA is not provided employment within 15 days from the date on which work is requested, an unemployment allowance shall be payable by the state government at the rate prescribed in the Act.

Thus planning is critical to the successful implementation of the Rural employment Guarantee Scheme. A key indicator of success is the timely generation of employment within 15 days while ensuring that the design and selection of works are such that good quality assets are developed. The need to act within a time limit necessitates advance planning. The basic aim of the planning process is to ensure that the district is prepared well in advance to offer productive employment on demand.

2.12 POVERTY AND POVERTY ALLEVIATION PROGRAMME.

Poverty is a socio-economic phenomenon which defies any precise definition; its concept and content varies from country to country depending upon what a particular society accepts a reasonably good living standard for its people. The estimates of poverty in India are made on the basis of the per capita availability of food. That person is said to be below the poverty line who fails to obtain 2400 calories of food in rural area and 2100 calories of food in urban area.

According to Lakdawala Formula 35.37 % of country's population was estimated to be below the poverty line in 1993-94 and 26.10 % in 1999-2000. On the basis of Lakdawala Formula, 32 different poverty lines were set for the different Indian states. It can be mentioned here that the Tenth Plan (2002-07) has set a target of reduction in poverty ratio by 5%

points to 19.3% by 2007 and 15 % by 2012. The targets for rural and urban poverty in 2007 are 21.1% and 15.1% respectively.

State level poverty trend

The extent and magnitude of poverty by headcount ratio show a substantial decline in almost all the states both at the over all and rural-urban break up levels (S M Dev and C Ravi, 2007). Nevertheless some of the states are having very high poverty ratios for the total population. In 2004-05, it was more than 40 % in Orissa and Bihar and between 30 and 40 % in Madhya Pradesh and Uttar Pradesh and between 25 % and 30 % in Maharashtra, Tamil Nadu, Karnataka, and West Bengal. Orissa's poverty level (47%) was almost six times that of Punjab (8%) in 2004-05. Rural poverty was high in all these states except in Tamil Nadu. Urban poverty was 30 % or more in Bihar, Madhya Pradesh, Orissa, Rajasthan, Tamil Nadu and Uttar Pradesh in 2004-05.

The absolute number of rural poor increased in three states viz Madhya Pradesh, Orissa and Uttar Pradesh in 2004-05 as compared to 1993-94. The number of poor for the total population (urban and rural combined) rose in Madhya Pradesh, Maharashtra, Orissa and Uttar Pradesh. A group of four states comprising Bihar, MP, Orissa and UP had a share of 49.8 % in the rural poor of the country in 1983. This share increased to 55 % in 1993-94 and further to 61 % in 2004-05. Similarly, the share of seven states – Bihar, Karnataka, MP, Maharashtra, Rajasthan, Tamil Nadu and UP – in urban poor rose from 61.6% in 1983 to 70 % in 1993-94 to 76 % in 2004-05. Poverty for total

population (urban and rural combined) is getting concentrated in five states, viz Bihar, MP, Maharashtra, Orissa and UP – their share being 65% of the total poor in 2004-05.

Table - 2.13

Major statewise changes in Headcount ratio of poor (Rural)

States	Rural		
	1983	1993-94	2004-05
Andhra Pradesh	27.31	16.64	10.85
Assam	41.92	44.43	23.05
Bihar	64.89	57.24	43.06
Gujarat	27.92	22.44	19.76
Haryana	21.77	26.62	13.41
Himachal Pradesh	17.77	29.27	12.50
Jammu & Kashmir	25.23	19.73	4.81
Karnataka	37.51	30.24	23.73
Kerala	38.46	26.49	12.27
Madhya Pradesh	48.21	40.43	38.17
Maharashtra	45.04	37.66	30.36
Orissa	67.52	50.11	47.76
Punjab	14.30	13.72	9.55
Rajasthan	37.72	26.89	18.91
Tamil Nadu	56.22	32.99	22.96
Uttar Pradesh	46.38	42.33	34.06
West Bengal	61.56	37.35	28.49
All-India	45.76	37.26	29.18

Source: NSSO Report 508 for 2004-05, EPW, February 10, 2007

Table - 2 .14

Major statewise changes in Headcount ratio of poor (urban)

States	Urban		
	1983	1993-94	2004-05
Andhra Pradesh	37.49	37.63	25.41
Assam	23.07	10.19	3.83
Bihar	47.49	36.54	31.66
Gujarat	38.00	29.44	11.96
Haryana	25.47	17.54	15.06
Himachal Pradesh	16.01	8.26	3.87
Jammu & Kashmir	17.48	7.38	4.81
Karnataka	42.88	39.67	33.40
Kerala	45.11	25.45	20.86
Madhya Pradesh	53.11	48.29	34.44
Maharashtra	39.69	34.74	29.42
Orissa	49.19	41.02	43.34
Punjab	23.52	11.83	5.57
Rajasthan	38.81	31.55	29.81
Tamil Nadu	47.94	38.92	34.06
Uttar Pradesh	49.47	36.15	30.29
West Bengal	31.50	23.24	18.50
All-India	42.27	32.56	26.02

Source: NSSO Report 508 for 2004-05, EPW, February 10, 2007.

Table - 2.15
Major statewise changes in Headcount ratio of poor
(Rural – Urban combined)

States	All (Rural- urban combined)		
	1983	1993-94	2004-05
Andhra Pradesh	29.75	22.30	14.80
Assam	40.03	40.46	20.46
Bihar	62.71	54.50	41.53
Gujarat	31.11	24.92	16.75
Haryana	22.59	24.26	13.92
Himachal Pradesh	17.63	27.37	11.61
Jammu & Kashmir	23.57	16.75	4.81
Karnataka	39.08	33.25	27.15
Kerala	39.81	26.22	14.48
Madhya Pradesh	49.23	42.30	37.21
Maharashtra	43.13	36.50	29.95
Orissa	65.31	48.85	47.07
Punjab	16.88	13.14	8.12
Rajasthan	37.95	27.96	21.48
Tamil Nadu	53.48	35.20	28.31
Uttar Pradesh	46.94	41.08	33.25
West Bengal	53.60	33.45	25.67
All-India	44.93	36.02	28.27

Source: NSSO Report 508 for 2004-05, EPW, February 10, 2007.

Some important reasons for Rural Poverty

- Rapid growth of population.
- Lack of alternate employment opportunities other than agriculture.
- Shortages of capital.
- Excessive pressure of population on agriculture.

- Illiteracy and lack of technical educational institutions.
- Lack of proper implementation of public distribution system.
- Lack of all-weather connectivity restricts villagers access to organized market.

Government efforts for eliminating rural poverty include both legal provision and implementation of developmental projects directly benefiting the rural poor in terms of employment generation and assets creation.

- Legal provision for elimination of bonded labourers.
- Small Farmer Development Programme (SFDP).
- Drought Areas Development Programme (DADP).
- Twenty point programme.
- Food for Work Programme.
- Minimum Needs Programme (MNP).
- Jawahar Gram Samriddhi Yojana.
- TRYSEM scheme and Scheme for rural artisans/craftsmen.
- Employment Assurance Scheme.
- DWCRA programme.
- Swarna Jayanti Gram Swarozgar Yojana.
- Mahila Samriddhi Yojana.
- Rural Housing Programme.
- Sampurna Gramin Rojgar Yojana.
- Indira Awas Yojana.
- Agriculture Income Insurance Scheme.

Important reasons for urban poverty

- Migration of rural youth to urban areas.
- Lack of vocational education/training facilities.

- Lack of proper implementation of public distribution system.
- Rapid growth of population.
- Slow growth of industries and limited job opportunities in the towns.
- Lack of housing facilities.

Government efforts for eliminating urban poverty

- Emphasis on vocational education in recent times.
- Financial assistance for constructing houses.
- Prime Minister's Rozgar Yojana (also implemented in rural areas).
- Urban Basic Services for the Poor (UBSP) programme.
- Prime Minister's Integrated Urban Poverty Eradication Programme (PMIUPEP).
- Swarna Jayanti Shahri Rozgar Yojana.

It can be mentioned that the growth oriented approach for poverty alleviation has been reinforced in the 10th Plan by focusing on specific sectors which provide greater opportunities for the poor to participate in the growth process. Plan allocations have been enhanced in areas of health, education, sanitation and other facilities in order to promote capacity building and well-being of the poor.

Two pioneers of microfinance, Yunus in Bangladesh and Mahajan in India, agree that micro credit is not enough to create a poverty-free world.

In his book 'the Fortune at the Bottom of the Pyramid: Eradicating Poverty Through Profits' the management guru C K Prahalad stresses how corporations should not ignore the poor, who represent the bottom-of-the-pyramid markets. Unlike the 'top-down' approach favoured by earlier theorists, Prahalad

argues that poor people shouldn't be regarded as burdensome to society. Rather, they represent an economic opportunity which needs to be tapped. He advocates inclusive capitalism which calls for repackaging products to suit the pockets of the poor – or micro-selling in a mega economy.

Amartya Sen seeks a global alliance – not only for fighting terror but also for combating illiteracy and disease in poorer societies. Like Yunus and Sen, Jeffrey Sachs too believes poverty can be ended 'not in the time of our grandchildren, but our time'. He advocates the 'human needs poverty approach', which questions whether people have the basics necessary to create conditions for economic growth. And one of these basics is health.

In his famous book 'The Mystery of Capital' renowned economist Hernando de Soto says the major obstacle to eradication of poverty is the developing world's inability to produce capital. The poor here save but their assets are usually in defective forms. Unlike the West where every piece of asset is documented, allowing capital generation. This is one reason why the developing and communist nations are 'under-developed' – without representation, assets are dead capital. For the developing world, he advocates formalization of property rights. While that may be politically difficult, de Soto points out that both the rich and the poor stand to gain if it happens.

2.12 LET US SUM UP

The amount of resources is not limited to only those which are known or discovered. It also includes undiscovered resources which may come in the production process with the development of knowledge and technology. Misuse, overuse or under-use of resources slow down the rate of growth of a country. In India, due to slow economic development, problem of educated unemployment has increased by leaps and bounds.

Almost 30 million people are facing the scourge of unemployment. The situation of joblessness creates the problem of abject poverty. Poverty in India manifests itself in its starkest form as a visual of semi-starved, ill clad, deprived millions of countrymen and slum dwellers, thousands of them dying every day from malnutrition, ill health, and lack of basic amenities, a picture which is both appalling and agonizing from any standards of human existence.

Terminal Questions

1. Give a brief account of India's mineral resources and discuss their importance in the economic development of the country.
2. Give a brief account of the main features of unemployment in India. How would you tackle this problem ?
3. Discuss the nature and magnitude of poverty in India and review the measures adopted for alleviating poverty.

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SELF LEARNING MATERIAL

ECONOMICS

COURSE : ECO - 103

ISSUES ON INDIAN ECONOMICS

BLOCK – 2 & 3

**Directorate of Distance Education
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ECONOMICS

COURSE : ECO - 103

ISSUES ON INDIAN ECONOMICS

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ECONOMICS

COURSE : ECO - 103

ISSUES ON INDIAN ECONOMICS

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BLOCK - 2

AGRICULTURE AND RURAL DEVELOPMENT

This block consists of three units. The first unit is on role of agriculture in Indian economy, existing cropping pattern in India etc. The second Unit deals with modernization of agriculture with the help of agricultural inputs and improved marketing system etc. And the third unit deals with the role that institutional credit plays in the development of agriculture.

UNIT- 1 : INDIAN AGRICULTURE

Structure

- 1.0 Objectives
- 1.1 Introduction
- 1.2 Role of Agriculture in Indian Economy
 - 1.2.1 Source of Livelihood
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 - 1.6.1 Present position of agricultural labour
 - 1.6.2 Problems of agricultural labourers
- 1.7 Let Us Sum Up

1.0 OBJECTIVES

This unit discusses the role of agriculture in Indian economy. A careful reading of this unit will equip you with an understanding of:

- cropping pattern in India
- nature of Indian agriculture
- food security in India
- conditions and problems of agricultural labourers

1.1 INTRODUCTION

Indian economy is usually described as an agricultural economy. Agriculture is a very important sector of Indian economy. Nearly 70 per cent of the people in India are dependent for their living on agriculture and allied activities. Thus the fate of Indian people largely depends on agriculture.

Those who live outside villages belong to agriculture in more than one way, though trade in agricultural products, through work in Agro based industries etc. But this sector is also the most backward one. A necessary requisite for its advancement is the general development. It is there fore, necessary and useful to acquaint ourselves with the role it plays in economic development. This will provide us with a frame to discuss its present position, the measures necessary for its growth, and the progress made in it.

1.2 ROLE OF AGRICULTURE IN INDIAN ECONOMY

Have you ever thought why Indian economy is usually described as an agricultural economy. It is because the contribution of agriculture to Indian economy is very great. The role and

importance of agriculture in Indian economy can be judged mainly on the following counts:

1.2.1 Source of livelihood

India is a land of villages. Seven out of every ten persons in India depend on agriculture. In advanced countries the proportion of people dependent on agriculture is declining while in India the proportion has remained almost stationary, though the share of agriculture in national income has declined of 57% in 1950-51 to 24% in 2001-02.

1.2.2 Supply of labour

An agricultural country by definition provides work to almost the entire labour force of the country. In the less developed countries, quite a significant proportion of the labour force remains in disguised unemployment as agriculture being unprogressive and subject to constraints. As such agriculture is the major source of labour for the development of non-agricultural sectors like industry and services. This labour supply is also of help because, being in disguised unemployment, it seek work at low wages. This permits expansion of industries because with low wages, profits remain height which intern can be used for further investment. Stimulus to industrial expansion

Agriculture contributes to industrial development in following ways:

- i) By providing necessary raw materials to the industries. Many industries in India depend on agriculture for their raw materials, for example, edible oil industry, Jute industry, Textile industry etc.
- ii) By purchasing the goods produced by the industries. Demand for goods for many industries comes from agricultural sector. For example agricultural implements industry, chemical fertilizer industry etc:

Even if a country opts for industries based on minerals rather than industries based on agricultural products, a rise in agricultural products, in particular of food grains, is needed to smoothen the process of industrial development otherwise with slow growing agriculture, there will be an undue price rise of foodgrains and other food products, upsetting the course of industrial development.

1.2.3 Commercial Importance

The contribution of agriculture both of India's internal and external trades is significant. The requirements for the expansion of exports can be easily met by adding a crop or two within the existing crop-pattern and that too with little incentive and with perhaps no additional capital investments. Agricultural produces like tea, oil seeds, tobacco, spices etc are the chief items of export from India. In 2002-2003, agricultural commodities accounted for about Rs.33700 core by value of Indian exports.

CHECK YOUR PROGRESS

Q No. 1: Discuss the role of agricultural sector in Indian economy.

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1.3 CROPPING PATTERN IN INDIA

Cropping pattern refers to the proportion of area under the different crops at a point of time. A change in the cropping pattern means a change in the proportion in the area under different crops.

Multiplicity of cropping system has been one of main features of Indian agriculture and it is attributed to rain fed agriculture and prevailing socio-economic situations of farming community. It has been estimated that more than 250 double cropping systems are followed throughout the country and based on rationale of spread of crops in each district in the country, 30 important cropping systems have been identified.

Cropping system of a region are decided by and large, by a number of social and climatic parameters which determine overall agro-ecological setting for nourishment and appropriateness of a crop or set of crops for cultivation.

Nevertheless, at farmers level, potential productivity and monetary benefits acts as guiding principles while opting for a particular crop/cropping system. These decisions with respect to choice of crops and cropping systems are further narrowed down under influence of several other forces related to infrastructure facilities, socio-economic factors and technological developments, all operating interactively at micro-level These are :*infrastructure facilities*: Irrigation, transport, storage, trade and marketing, post-harvest handling and possessing etc. *Socio-economic factors*: Financial resource base, land ownership, size and type if land holding, household needs of food, fodder, fuel, fiber and finance, labour availability etc. *Technological factors*: Improved varieties, cultural requirements, mechanization, plant protection, access to information etc

- **CROPPING SYSTEM OF IRRIGATED EOSYSTEM**

Depending upon the natural water resources, each region has certain area under irrigated agriculture. But broadly considering, two distinct irrigated ecosystems emerge. One is Indo-Gangetic plain region comprising the states of Punjab, Haryana, plains of Uttar Pradesh, Bihar and Plains of Jammu & Kashmir. The other ecosystem may be carved out of coastal areas of Andhra Pradesh and Tamil Nadu. At present 51 million hectare net-cropped area is irrigated by different sources, which continues about 35 percent of net cultivated area. Estimates indicate that more than 56 percent of total food grain comes from irrigated ecosystem while progress has been considerably sluggish in rain fed agriculture which still accounts for 92.8 million hectare or 65 percent of net area of sown and contributes only 44 percent to national food grain production. If past trends are any indication, it may be visualized that in future also the major gain in production, at least 80 percent of the incremental food required by 2025, has to come from irrigated ecosystem where new genotypes and intensive

fertilizer use will continue to play dominant role in enhancing crop productivity. The principal crops having sizeable percentage of area under irrigation in the country are; sugar-cane (87.9%), wheat (84.3%), barley (60.8%), rapeseeds and mustard (57.5%), rice (46.8%), tobacco (41.2%), cotton (33.2%), chickpea (21.9%), maize (21.8%) and groundnut (19.2%). Among the states, Punjab ranks first with 94.6 per cent cropped area under irrigation followed by Haryana (76.4%) and Uttar Pradesh (62.3%). The statistics related to state-wise agro ecosystems cropping pattern for 1998-99.

- **LEGUME BASED CROPPING SYSTEMS**

Legume crops (pulses and oilseeds) are popular for their suitability in different cropping systems. Recent advances in the development of large number of varieties of pulses and oilseeds crops, varying largely for maturity duration, have made it possible to include them in irrigated crop sequences. The popular cropping systems are pigeon-pea wheat in Madhya Pradesh and groundnut wheat in Gujarat, Maharashtra and Madhya Pradesh and groundnut-sorghum in Andhra Pradesh and Karnataka.

- **VEGETABLE CROPS**

Vegetable crops in India are grown from the sea level to the snowline. The entire country can broadly be divided into six vegetable growing zones: -

1. Temperate Zone: Jammu&Kashmir, Himachal Pradesh, upper Utranchal and Punjab. Darjeeling hill area of West Bengal, Niligiri hills areas of Tamil Nadu, Arunachal Pradesh and Sikkim.
2. Northwestern subtropical zone: Haryana, parts of Punjab, Uttar Pradesh, Madhya Pradesh and Bihar.
3. Northeastern subtropical zone: Most parts of Bihar, northern parts of West Bengal, Meghalaya, Assam and Nagaland.

4. Central tropical zone: Gujarat, most parts of Madhya Pradesh, Maharashtra, Western part of West Bengal, Tripura, Manipur, and parts of Mizoram.

5. Southern tropical zone: Andhra Pradesh, Karnataka, Tamil Nadu and parts of Kerala.

6. Coastal humid tropical zone: Coastal areas of Kerala, Andhra Pradesh, West Bengal And Orissa.

CHECK YOUR PROGRESS

Q No. 1: What is meant by cropping pattern?

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1.4 FOOD SECURITY AND PUBLIC DISTRIBUTION SYSTEM IN INDIA

The Department of Food and Public Distribution is responsible for the management of food economy of the nation. It undertakes various activities, such as, procurement of food grains, building up and maintenance of food stocks, their storage, movement and delivery to the distributing agencies. A close watch is kept on production, stock and price level of food stocks and the price level of food grains, and efforts are made to ensure their

adequate availability at reasonable prices in different parts of the country.

Food grains occupy a pivotal place in the price structure, and this latter has to be safeguarded, as it must be, the prices of food grains must be held stable at levels within the reach of poorer section of our community.

The objectives of a sound agriculture policy are two-fold:

- to ensure fair prices for the produce of the farmers, and
- to ensure adequate and regular supply of agricultural commodities to the consumers at reasonable prices.

Excessive fluctuations in agricultural prices generate harmful effects both for producers and the consumers. The beneficiaries of unstable prices are the middlemen and the speculators. It is for these reasons that Government undertakes buffer stocks operations, i.e., making purchases when there is glut of produce in the market and releasing stocks during period of scarcity.

India's Public Distribution System (PDS) was introduced during the Second World War to address food security concerns in the face of scarcity, with the intention of maintaining price stability and checking dishonest practices in private trade. The scheme was initially heavily dependent on imported food. In the 1960s the coverage of the PDS was expanding owing to a food crises.

The Green Revolution, coupled with favorable weather, led to the growth of comfortable buffer stocks in the 1980s, though the procurement operation of the Food Cooperation of India (FCI), which in turn expanded the volume of food grain provided through the PDS.

Food Security is one of the major components of social security. It consists of ensuring that 'food is available at all times, that all persons have means of access to it, that it is nutritionally adequate in terms of quantity, quality and variety, and that it is acceptable within the given culture'. There are three elements in

this definition, availability, access and suitability. In recent years, nutrition has been considered as a part of food security, and is therefore, referred to as 'Food and Nutrition Security'.

TPDS was introduced in 1997 in order to achieve better targeting of food subsidy. Under the TPDS, a dual price mechanism for Above the Poverty Line (APL) and Below the Poverty Line (BPL) consumers prevails. The full economic cost of food grains is recovered from the APL consumers while food grains are sold at half the economic cost to BPL consumers.

Antyodaya Anna Yojana launched in December 2000 aims at identifying 10 million poor families and providing them with 25 kgs of food grains per family per month, at a price of Rs.2 per kg. for wheat and Rs.3 per kg. For rice, amounting to an annual allocation of food grains of about 30 lakh tones.

Similarly the Annapurna Scheme (2000) is for senior citizens eligible for old age pension but not receiving the pension, and whose children are not residing with them. Under this scheme 10 kg. Of food grains is provided per person, per month, free of cost. The estimated cost of this scheme is Rs. 330 crore per annum.

It ensures availability of certain essential commodities (sugar, kerosene, rice and wheat) at affordable prices, especially for the poor. Through its agency the Food Corporation of India (FCI), the Government procures and stocks food grains, which are released every month for distribution through the PDS network across the country. These commodities are distributed to the public through a network of Fair Price Shops (FPS). In addition to this, the system of procurement is also used by the Government to provide minimum support prices to the farmers in order to stabilize agricultural output and income.

DISTRIBUTION

The off-take of food grains (wheat and rice) from the central pool by various States/UTs and others for distribution through fair price shops and for welfare/employment programmes

in 2001-02 was 312.676 lakh tones as against 179.467 lakh tones during 2000-01. The total off take of food grains (wheat and rice) under targeted public Distribution systems (TDPS) during April 2001 to march 2002 was about 135.31 lakh tones comprising 80.34 tones of rice and 54.97 lakh tones of wheat.

Report on the high Level Committee on Long Term grain Policy: -

The department of food and public Distribution had constituted a High-level committee on November 16,2000 for formulating a long term grain policy for the country. The committee submitted its final report on July 31,2002. Some of the recommendations made by the committee for Long Term Grain management are listed below;-

1. Quality norms should be strictly adhered to while procuring foods for PDS distribution.
2. Payments as statutory levies to government by FRCI are essentially transfers from the central to the state Government. These should be taken care of separately between the center and states without involving the FCI.
3. MSP for paddy should be fixed only for a single grade.
4. APL price should be reduced to 80 percent of the economic cost and BPL prices to the 50 percent of the economic cost excluding statutory levies. This would also help improve the viability of the fair price shops in the distribution network.
5. Once the current high stakes are reduced the resultant savings could be used for employment schemes, for which there was a strong felt need and which could be used to develop rural infrastructure.
6. The existing Antyodaya scheme of food support could also be expanded to become a food security system for the entire destitute population.
7. While the center has to continue to take the primary responsibility for procurement, as production is dispersed production should also become more dispersed and this process can definitely save costs of transportation and meet consumer needs more adequately.

8. Crop diversification is very important at the current stage of India's agricultural development, given the challenging dietary patterns. There is need for special packages for diversification.

1.4.1 Sustainable Agriculture

Sustainable crop production involves the successful management of agriculture resources to meet the hanging human needs, while maintaining or enhancing the environment quality and conserving natural resources (TAC, CGIAR, 1988). The natural resources of a country are its most valued endowment, on which all life depends in most countries of the world. In the recent past, with the burgeoning populations and the national goals of seeking self-sufficiency in food production, the natural resource base is being depleted gradually. The net result is human-induced degradation of land and water resources through inadvertent inappropriate use of technological innovations.

The dilemma today is to reduce this vicious cycle of events by trying to conserve the land resource base while at the same time, use it sustainably to feed and cloth the growing population. These are the basic tenets of sustainable agriculture, which present immense practical problems to their proper implementation, particularly in developing countries.

Sustainable production envisages productivity in perpetuity. Sustainable agriculture should:

1. meet the food, feed, fiber and fuel requirements of the nation .
2. conserve natural resource, and
3. improve the natural resource base .

The problem of land degradation clearly emerges as the most significant threat to agriculture in developing countries. Land related constraints could be grouped in two basis categories. Intrinsic and induced factors. Intrinsic .as rainfall decreases, risks associated with cultivation of crops increases. Stabilizing

production of agricultural commodities in these low rainfall environments is not only a question of agricultural commodities in low rainfall environments is not only a question of sustainability of agriculture but also sustainability of human societies associated with them stabilizing the production, by decreasing year to year yield fluctuations, in low rainfall zones is the clearest way of achieving sustainability of agriculture.

Integrated pest management (IPM) has a key role to play in sustainable crop production. Many ecologically based IPM practices have been developed to reduce the loss caused by pests.

Firstly, because of unparalleled the expanded food needs must be met with out great expansion in the area under cultivation. Most highly productive lands are already farmed and environmentalists will firmly resist further clearing of forests and grasslands for crop production. It is not likely that more than 25% of the expanded food needs will come from newly cleared leads. The added production must come primarily from increases in yields per hectare, but in a way that is sustainable on a long term.

The next challenge for the research community is to create a new of thinking about marginal areas and how the adversities of these areas could turn into advantages.

The socioeconomic policy framework that creates incentives for farmers and generates demand for viable agricultural technologies and services, would eventually lead to a robust growth in farm production and incomes. Following reforms and policy structures are proposed

Enhance demand for traditional and novel food products. Thus creating demand for farm produce and higher prices for farmers.

A farmer friendly trade and price policy, both for farm produce and “inputs” so that agriculture would not be subject to “next taxation” in real terms.

Greater security of land tenure to encourage investment in land conservation.

Provision of a better infrastructure, including roads to reduce the cost of input supply and marketing. Processing and marketing facilities to help the farmer reap a larger part of consumer price, and improved financial services, to help farmers to save as well as borrow for investment.

Since the introduction of the dwarf, short duration, high yielding varieties of cereals and shift to double cropping in the irrigated regions of the country with production potential of 5 to 15 t/ha/yr, the soils started showing fatigues as a result of the associated heavy depletion of plant nutrients. This became apparent in the post green revolution period in the fertile Indo-Gangetic plain rice wheat double cropping was practiced in a year.

High yields associated with heavy fertilization result in heavy removal of micronutrients, which are generally not applied. Micronutrient deficiency reduces the yields substantially. In the pre intensive agriculture era, crop yields were low and the farmers heavily depended upon organic manures, which regularly supplied micronutrients.

Growing a specific crop year after year without following proper crop rotation, especially when large areas are covered by one or two varieties, can render the crop vulnerable to the attack by pests and diseases.

Recently there has been serious attack on sugarcane by the new pest. White woolly sugarcane aphid in the sugarcane monoculture area of Southern and Central Maharashtra. The increasing pest pressures have been dealt with by promotion and adoption of integrated pest management (IPM), which involves resistant cultivators, biological control, crop rotations, appropriate agronomic practices and judicious use of pesticides.

Non-judicious use of irrigation water and lack of drainage result in the development of saline and alkali soils which become unsustainable.

STEPS FOR SUSTAINBLITY

Balance Fertilization: Balance application of N, P, K, and micronutrients is an important step towards sustainable crop production.

Non judicious use of irrigation water and lock of drainage result in the development of saline and alkali soils which become unsustainable. Judicious use of irrigation water helps in increasing soil productivity and sustainability and also minimizes the disease and pest attack. Efficient water management system (such as drip irrigation) will proper drainage is the firth step in sustainability water use efficiency of crops should be increased by marking use of biodiversity.

Legumes have been known for their soil recuperation power as a result of the fixation of atmospheric nitrogen by the symbiotic bacteria present in their root nodules. The legume sesbania rostrata has nodules on the stems. The fixed N not only meets all the nitrogen needs of a legume but also a sizeable amount is left for the succeeding crop. Nutrient recycling in a cropping system by legumes could be complete or partial.

Changing the crops in a cropping system this is the fourth step to sustainability and a safe way to avoid ecological hazards such as persistence of a weed or pest or disease epidemics in the rice wheat cropping system. Menace of the weed phalaris minor has been significantly reduced by changing the crops in rotations, such as maize wheat rice wheat maize wheat or sorghum wheat maize wheat sorghum wheat.

Integrated pest management in which pests are countered by a mixture of preventive, mechanical, biological, and chemical means. Integrated nutrient supply, so that the soil is kept healthy and its fertility enhanced by means of organic fertilization; use may

be made of a number of natural processes such as buffering the nutritive capability of organic material, nitrogen fixation by means of bacteria and bringing nutrients to bacteria and bringing nutrients to the surface by means of deep rooting crops; and if necessary supplementary mineral fertilizers may be used.

Whether an agricultural system is sustainable or not is in fact, determined by numerous factors not only are the agricultural methods used important but also external factors such as international population pressure, national price policy, access to resources, research and extension, political power of the peasants, the relationship between man and nature and by no means the least poverty.

Agro forestry the integration of trees into cultivated fields or farming systems to improve soil erosion, and microclimate, prevent soil erosion and produce fireweed, timber, fodder and edible products.

<p>CHECK YOUR PROGRESS</p> <p>Q No. 1: What is the difference between PDS and TPDS</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>

1.5 NATIONAL AGRICULTURAL POLICY

The pattern of agricultural growth has been uneven across the regions and crops. Agriculture has also become a relatively unrewarding profession due to generally unfavorable price system and low value addition. Keeping in view the above facts the national policy on agriculture seeks to utilize the vast untapped

growth potential of Indian Agriculture and promotion of value addition.

- **Phases in agricultural policy**

Agricultural policy followed during the last five decades can be broadly distinguished in three phases

The period from 1950/51 to mid 1960s, which is also called as pre-green revolution period, witnessed tremendous agrarian reforms, institutional changes and development major irrigation projects. Expansion of same area was the main source of growth in the green revolution period.

The government took bold decision to go for the import and spread of HYV seeds of wheat and rice, which involved the use of fertilizer and irrigation. This marked second phase of agriculture policy in the country.

Wheat and rice production in a short span of six years between 1965-66 and 1971-72 witnessed an increase of thirty million tones.

Agrarian reforms during this period took back seat while research, extension, input supply; credit, marketing price support and spread of technology were the prime concern of policy makers.

The next phase in Indian agriculture began in early 1980's. There has been a considerable increase in subsidies and support to agriculture sector during this period while public sector spending in agriculture for infrastructure development started showing decline in real term but investments by farmers kept on moving on a rising trend. The output growth, which was concentrated in very narrow pockets, become broad based. The rural economy started witnessing process of diversification.

The national agriculture policy aims to attain output growth rate in excess of 4 per cent per annum in agriculture sector.

The policy resolution then described in detail the strategy and policy alternatives, which are grouped under the following heads:

1) The policy aims to promote economically viable, and environmentally non degrading use of country's natural resources land, water etc:

2) Since independence, Food and nutritional security has remained central to India's agricultural and development policy. Sustaining nutrition and food security require reduction in average cost of food grain production in real terms. This necessitates raising food grain production by tapping unexploited potential.

3) National agriculture policy gives high priority to evading location specific and economically viable improved varieties of agricultural crops, livestock species. There is added emphasis on rationalization of agricultural research based on identified agro climatic zones.

4) National agricultural policy provide favorable economic environment in terms of trade with manufacturing, through external and domestic market reform etc.

5) Traditional agriculture and agriculture in underdeveloped countries generally lack investments in agriculture is to generate capital. The investment comes from two sources public and private. Public is meant mainly to create infrastructure, private investment is used mainly for improvement quality of existing asset.

6) One of the areas of policy reform is land reform by focusing on consolidation of holdings, redistribution of surplus and wasteland among landless tenancy reforms. Assured price far crops are also essential.

7) National agricultural policy suggests agricultural insurance scheme covering all farmers and all crops through out country with built in provision for insulating farmers from financial distress.

Some other measures like enhancing flood proofing and drought proofing, ensuring remunerative prices through announcement of MSP, future trading in agricultural products etc may also be taken.

1.6 CONDITIONS AND PROBLEMS OF AGRICULTURAL LABOURERS

Let us define the term “Agricultural Labour” A person who worked in another person’s land for wages in cash, kind or share of crop was regarded as an agricultural labour. Such a person had no risk in cultivation but merely worked in another person’s land for wages. An agricultural labour had no right of lease or contract on land on which he worked.

This sector, being underdeveloped, does not offer work for the whole year. Dominant characteristics agricultural labour is that it is unskilled, and unorganized.

Undoubtedly, the agricultural workers are the backbone of an agrarian economy. It is worthwhile to mention that particularly in states like Haryana, Punjab and Maharastra, their significant contribution on the front of agricultural economic transformation has been efficacious in accelerating the growth rate of the agricultural sector.

1.6.1 Present position of agricultural labour

It may be divided into four types:

- I) Landless labourers who are attached to the landlords.
- II) Landless labourers who are personally independent but who work exclusively for others.
- III) Petty farmers with tiny bits of land who devote most of their time working for others.

- IV) Farmers who have economic holdings but who have one or more of their children and dependents working for other prosperous farmers.

1.6.2 Problems of agricultural labourers

The problems before the agricultural labourer's are-

- i) Illiteracy- Illiteracy is the root cause of almost all the problems. Whether its exploitation or employment generation, role of literacy is significant. In an agrarian economy where the concept to mechanized or modern cultivation has gained a new momentum, education an outstanding place. Education increases their adoptability of technological innovations. Examples found in India also show that when & where the rate of illiteracy is higher, the magnitude of exploitation is there.
- ii) Wage and Income – The wages of these workers are very small indeed. As such their incomes are far less than needed for a reasonable minimum standard of living. Those who are landless and depend only upon labour are poor as their wages are low. Those who are small farmers and also work as wage labourers to supplement their farm income are also no better, because wages are small. The situation is worse for temporary or casual labours who are employed only during the period of hereby work, like harvesting. The problem is not confined to the wages & earnings of workers but it becomes complicated, as the workers get employment only during the sensitive periods like plantation. Thus, an amendment in the wage structure of agricultural labourers is need of the time.
- iii) Avenues of Employment - The availability of work is much less than needed. It is not continuous for many. They get work only during certain periods of farming operations.

These are for example, sowing and harvesting phases of farming.

Agricultural labourers lack financial resources to be invested in enterprises in which they might be self-employed, their major part of working days or man-days remain untapped. This has been aggravating the magnitude of problems faced by the agricultural workers.

- iv) **Indebtedness** – Agricultural labour is heavily indebted. Normally, the farm labourers borrow from the landowners under whom they work. Since they have no security to offer, they pledge themselves to the money-lenders in many areas. It would be right to say that the growing indebtedness is particularly on account of poor wage conditions and the rising unemployment the growing magnitude of indebtedness has also affected their capacity of organizing into union and raising their bargaining efficacy. Hence, indebtedness is considered to be the genesis of poor social conditions.

1.7 LET US SUM UP

In this unit we have discussed the role of agriculture in Indian economy. You also learnt different cropping systems followed in India. The responsibility of management of food in an economy is undertaken by the Department of Food and Public Distribution. The department undertakes diverse activities, such as, procurement of food grains, building up and preservation of food

stocks, their storage, movement and release to the distributing agencies.

Key words

Agricultural Labour – A person who worked in another person's land for wages in cash, kind a chose of crop.

Food Security – It consist of ensuring that food is available at all times, that all persons have means of access to it, it is nutritionally adequates and acceptable within the given culture.

Suggested Readings

1. *Indian Economics* : Dutta & Sundaram, S. Chand & Company Ltd., New Delhi
2. *Agricultural Problems of India*, Kitab Mahal, New Delhi

UNIT-2 : MODERNIZATION OF AGRICULTURE

Structure

- 2.0: Objectives
- 2.1: Introduction
- 2.2: Irrigation
- 2.3 Farm Mechanization and Agricultural inputs
 - 2.3.1: Seeds
 - 2.3.2: Chemical fertilizers
 - 2.3.3: Plant protection and pest control
 - 2.3.4: Insecticides
- 2.4: Agricultural growth during the planning era
- 2.5: Land reforms
- 2.6: Agricultural marketing
- 2.7 Let Us Sum Up

2.0 OBJECTIVES

The main aim of this unit is to acquaint you with some very aspects of modernization of agriculture. After studying this unit you should be able to:

- Understand the importance of mechanization and agricultural inputs for modernization of agriculture
- Understand the importance and problems of agricultural marketing.
- Understand different aspect of land reform.

2.1 INTRODUCTION

The notion of modernization is not simple. It is a relative term. Modern way may be described as something new i.e. what is yet to come is new and what is in use is old. Basically modernization of agriculture is dependent on the acceptance, by the

majority of farmers, of the results in the use of many functions that go into the agricultural process. In this Unit we will discuss upon some important issues like, irrigation, agricultural inputs, land reform, agricultural marketing etc. which are highly related to modernization of agriculture.

2.2 IRRIGATION

In India, as in other countries, rivers have had a powerful influence on national and local life. Successful agriculture in most parts of the country is not possible without the use of river waters. The large land resources of India cannot be put to productive use without a simultaneous development and use of the water resources. In fact, an integrated development of the land and water resources of India is of fundamental importance to the country's economy. From times immemorial, life and civilization in India have been dependent largely on rivers. The earliest civilizations developed along banks of Indus and the Ganga and their tributaries. In the Deccan, except for the narrow strip along the western coast, large parts of the population have depended for their existence on river waters.

Irrigation, or the artificial application of waters to crops, is an old art in India; in many parts it began with agriculture itself. References to the practice of irrigation in India have been traced to many centuries prior to the commencement of the Christian era. The large numbers of tanks, which are found in Deccan, have been in existence for ages. The Cauvery delta canals date back to the second century and the Yamuna canals were constructed originally about the 14th century. Apart from rivers, the underground waters constitute an important source of water supply for domestic and agricultural purposes. The exploitation of sub-soil water resources must be integrated with the use of river waters.

The outstanding feature of the rainfall is its unequal distribution during the year and its variation from year to year in respect of quality, incidence and duration..

SOURCES OF IRRIGATION

Water supplies for irrigation can be obtained from three sources:

- directly from water normally flowing in rivers i.e., by diversion Canals
- from storage of flood-waters flowing in rivers or directly of rain water from small catchments; and
- from waters available underground i.e., by wells or tube-wells.

The extent to which supplies are available from three sources mentioned above varies in different parts of India; so also does the extent to which the available sources can be utilized economically.

MINOR AND MAJOR IRRIGATION SCHEMES

Irrigation is usually classified under two heads, minor and major. Another classification is based on the agency providing irrigation i.e. whether private or Government. While most of canals are Government owned, wells and tanks etc. are largely owned by private parties.

Small and medium irrigation works have an important part to play in developing irrigation in the country. They may have obvious advantages. They provide a large amount of dispersed employment. They involve smaller outlay and can be executed in a comparatively shorter period. Being spread over the country, they confer wide-spread benefit, and it is, therefore, easier to mobilize public co-operation in their construction.

Since so much of the cultivated area depends entirely on rainfall, problems of dry farming should receive much more attention than they do at present. By preventing field run off and surface evaporation the moisture of the soil can be conserved

and crops can be successfully raised under dry conditions. The experiments indicate that fair crop yields can be assured in a bad year and increased yield obtained in a normal year by following improved methods which include construction of bands and embankments, production of soil mulch, proper weeding and hoeing and the use of these practices by the cultivators. The difficulties experienced therein have to be studied by the extension staff and their solution found with the help of research.

The relative advantages and disadvantages of minor and major schemes may be briefly summarized as follows:

Minor schemes are advantageous in that

- the initial outlay involved is small
- they can be executed quickly and yield quick results;
- they generally require no special assistance by the way of foreign personnel or equipment; and
- local resources can be easily mobilized for their execution.

The disadvantages, on the other hand, are:

- their high cost of maintenance
- their relatively short life and
- the limited 'protection' they give.

Owing to the operation of these causes, a fair proportion of such works are now in various stages of disrepair all over the country. Experience in India is that minor irrigation works can be maintained only if the beneficiaries undertake the obligation for this. at the same time where there are laws imposing such obligations it has not been found possible to enforce them strictly .

The advantages of major schemes are:

They are generally multi purpose in nature .apart from irrigation they confer other benefits such as hydro electric power, flood control navigation, etc.

They utilise surplus waters of the river system which are flowing waste at present and in fact they constitute the only way in which such surplus waters can be utilized.

They give better protection in years of scarcity as there are large catchment areas.

The disadvantages are the initial high cost and the time they take for execution.

Public investment in irrigation has fallen significantly over successive plan periods. This is largely due to resource constraints faced by governments both at the center and the states.

In India, of the 142.6 million hectares of net cultivated area, 57 million hectares (40 percent) is irrigated. The remainder 85.6 million hectares (60 percent) is rainfed. With the green revolution, which remained confined to the irrigated areas, showing signs of fatigue in the irrigated areas, attention is increasingly being focused on rainfed areas to provide impetus for future agricultural growth. The ministry of agriculture has accorded very high priority to the holistic and sustainable development of rainfed areas through integrated watershed management approach.

COMMAND AREA DEVELOPMENT PROGRAMME (CADP)

The programme is in operation since 1974-75 aiming at bridging the gap between potential created and its utilization. During the ninth plan period 1997-2002 central assistance of Rs 764.42 crore was proposed to be restructured during the tenth plan 2002-07 to improve existing conditions of water availability at the point of the government outlets of major and medium irrigation projects and make the stakeholders responsible for operation and upkeep of the downstream systems. The restructured cad programme is also to take into account the need for better water management practices within and outside the major and medium irrigation commands through inclusion of tank rehabilitation, on

farm development works in minor irrigation projects, drainage and water logging amelioration activities.

Accelerated irrigation benefits programme (AIBP) country's ultimate irrigation potential UIP has been assessed at 139.89 million hectares. So far about 68 percent of UIP has been harnessed. Average annual growth in irrigation potential at about 1.5m h.a per annum up to the end of eighth plan. The slower progress in creation potential at the rate of about 1.80-1.85 m.ha per annum during the ninth plan was due to varied reasons including constraint of resources with the state governments.

As large no. of river valley projects, both multipurpose and irrigation, have spilled out from plan to plan, mainly because of financial constraints being faced by the state government, the governments of India launched the accelerated irrigation benefits programme during 1996-97 for accelerating implementation of ongoing irrigation/multipurpose projects which substantial progress has been made and medium irrigation projects which are in advanced stage of construction and could yield irrigation benefits in next four agricultural seasons.

Funds under this programme are provided to the states in the form of Central Loan Assistance. A Fast Track Programme for completion of major and medium irrigation projects which can be completed in with one year with full central assistance was introduced in February 2002. The states were categorized as reforming states if the water rates were rationalized to recover full operation and maintenance costs and such states become eligible for better ratio to avail central loan assistance.

The watershed development programme is being implemented by the ministries of agriculture, rural development and environment and forest. The current strategy of various ongoing rational, bilateral and internationally-aided projects for development of rainfed areas is based on the concept of conservation of rainwater for integrated development of watershed, promotions of diversified and integrated farming systems, management of common poverty resources and argumentation of

family income and nutritional levels of participating watershed communities through alternate households production systems.

The Tenth Five Year Plan has a target of treating 15 million hectares of rainfed land under the various watershed development programmes.

Water-use efficiency in Indian agriculture is one of the lowest in the world. Government will have to promote micro-irrigation technology, comprising drip and sprinkler irrigation, on a large scale. The national project for the repair, renovation and restoration of water bodies was launched in March 2005. The pilot project is planned for 16 districts in 9 states and will cover nearly 700 water bodies, and 20,000 hectares of additional land will come under irrigation. The allocation for the pilot project was increased to rupees 100 crore in the 2005-06 budget.

2.3 FARM MECHANIZATION AND AGRICULTURAL INPUTS

Farm mechanization means the use of mechanical implements for farming instead of the traditional simple methods involving human and animal Labour. This will mean a transformation from biological sources of energy (human and animal) to mechanical sources of energy (tractors, threshers, pump sets, harvester combines, etc.). Modernization of agriculture involves use of appropriate machinery to ensure timely field operations and an effective application of various inputs using mechanical power.

Changing Farming Practices towards Mechanization

There has already been a considerable change in farming practices in line with agronomic developments. These include (i) Increase in cropping intensity-2to3 crops a year; (ii) Agronomic practices changing to adopt mechanism; (iii) Natural resources under stress-forcing optimization of natural resources

like water, soil and the like, and (iv) farmers going in for more cash crops.

Mechanization is taking place for the crops-paddy (threshing, reaping or harvesting, transplanting is going slow), potato (planting, and digging), wheat (harvesting), and soil preparation (rotary tillers).

A lot of advances have been made in India, especially in the field of farm mechanization. Mechanisation is carried out in every aspect of agricultural practices. While all these advances have been made in India today, farm mechanization has stopped with the provision of additional farm power through tractors and primary cultivation using tractors and power tillers to a large extent. Farm mechanization can be broadly divided into:

- Primary cultivation and seed bed preparation.
- Planting, weeding and fertilizing.
- Harvesting, threshing, winnowing, chaff cutting and
- Post harvest crop handling, storage and transport.

Basic factors for expanding Mechanization

(1) since agriculture in India is seasonal in nature, it involves a peak requirement of Labour of two or three months” duration. Therefore, a “Labour bottleneck” especially in areas under new high-yielding varieties emerges. Mechanization helps to overcome this bottleneck by reducing requirements during peak periods.

(2) Mechanization helps immensely in reducing the production cost. The cause of increasing use of tractors in farm operations in Punjab and Haryana is that tractor is the relatively cheaper unit.

(3) Mechanization makes adoption of multiple cropping practices possible.

(4) Use of machines on farms increases the income of farmers. It is been observed that under traditional agriculture

based on wooden (or iron) plough, bullocks, and other primitive implements, agriculture is a mere subsistence occupation (even though the farmers might sell a portion of their products in the markets). Introduction of tractors, harvesters, threshers, pump sets for irrigation etc. changes the very nature of traditional agriculture and transforms it into a commercial occupation.

(5) The hard work and exhaustion is greatly reduced by the introduction of machines. Which were inherited features of traditional agriculture. Farmers now enjoy more leisure time and work under more agreeable circumstances.

The main argument made against agriculture mechanization -it reduces agriculture employment and is unsuitable in the conditions of Labour-abundant economy like India. It has been observed that introduction of tube-well irrigation in certain pockets of the country has helped to increase per hectare employment by making multiple cropping possible.

Arguments against Farm Mechanization

It is true that farm mechanization has shown good results as of raising the agricultural production and improving the standard of living of cultivators within very short period. But a number of arguments have been advanced against farm mechanization. It is a separate issue that some of them are controversial. They are:

1. Small holding: small size and scattered holdings of the farmers stand in the way of mechanization. As a result of this, farm machinery generally remains under utilized.

2. Paucity of capital: Majority of small cultivators are poor who are not in a position to purchase the costly machinery like tractors, combine harvesters etc. Thus paucity of funds is an other limitation for adoption of firm mechanization.

3. Surplus Cattle population: the use of machinery at farm will turn the draft cattle population surplus, which will increase the burden on the economy, unnecessarily.

4. Fear of Unemployment: No doubt, the increasing farm mechanization is going to increase employment in secondary and tertiary sectors but its impact on creating unemployment in primary sector especially in the rural areas is quite visible where there is already limited scope of unemployment opportunities in non-agricultural sector.

5. Lack of technical Knowledge: Lack of proper knowledge of farmer to operate the machinery creates another problem. This demand employment of skilled Labour to handle such machinery, thus, incurring heavy cost. Otherwise poor maintenance and improper operating the machinery is also uneconomical and risky too.

6. Shortage of petrol and Diesel: There is great shortage and diesel in the country as a whole. It is evident from the long queues of farmers, which are commonly observed on diesel pumps in Punjab. Thus, to use so extensive oil based farm machinery is not desirable. This will be an extra burden to import the Petrol and Diesel.

7. Poor Repair facilities: The state lacks repair and replacement facilities especially in the remote rural areas.

8. Idle Machinery: Due to the seasonal nature of the agriculture the farm machinery remains idle for much of the time. Thus, idle machinery means unnecessary high costs unless proper alternate use of such machinery in the of time is made.

Future Prospects

Removal of quantitative restrictions on export of agriculture produce will open up the areas such as (a) better storage and holding facilities;(b) improved surface transport facilities from remote villages to sea ports(c) growth in material handling and

packaging industry and (d) collective farming leading to higher mechanization in the areas of potato harvesting and grading, sugarcane harvesting; mechanized spraying, jute mechanization and the like.

CHECK YOUR PROGRESS

Q No.1 : ‘Selective mechanization rather than complete mechanization suits to the rural set up of the country’ – comment.

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2.3.1 Seeds

One of the most outstanding achievement of modern agricultural is the production of improved varieties of seed for different crops. The cultivator is generally well aware of the importance of using good seed. Good cultivators are known to preserve their own seed. Certain varieties of seed have spread by themselves without special departmental efforts., and if improved seed is not marking such headway as is than in the apathy of the cultivators.

The scope for securing increased production from the use of improved seed is very considerable. Some states have adopted legislation marking the use of improved seed obligatory. In the case of crops liable to cross – fertilization, such a course is essential, but where soils differ considerably and require to be planted with different varieties of the same crop, compulsion would be possible

only if pure seed of each variety is available. A strong public opinion has necessarily to be built up before legislation can be made effective.

National seeds policy 2002 one of the main reasons for the low levels of yields in Indian agriculture has been the unsatisfactory spread of new technological practices, including the adoption of high yielding varieties of seeds (HYV) and usage of fertilizers and pesticides such as soil conservation and crop rotation. The adoption of new technology, mainly the HYV seeds require intensive use of fertilizers and pesticides under adequate and assured water supply.

The National Seeds Policy, 2002 provides the framework for growth of the sector. It seeks to provide the farmers with a wide range of superior quality seed varieties and planting materials.

As a part of India's obligation under TRIPs Agreement of the WTO, the protection of plant varieties and farmers' Right Act 2003 was enacted to protect the intellectual property right of plant breeders and to stimulate investments in R&D for the development of new plant varieties. The act involves setting up of an Authority for implementing the provision of the Act. Necessary rules and regulations under the act have been notified. A draft seeds bill has been formulated to replace the seeds act, 1966. The bill provides for compulsory registration of seeds on the basis of their performance, deregulation/decontrol of seed industry/processing units and imposition of more stringent penalties to check the sale of spurious seeds.

To encourage export of seeds, the procedures for seed exports have been simplified. Seeds of privately developed varieties will be allowed to be exported freely subject to the provision of the EXIM policy (2002-2007), except where there is an emergency caused by natural calamities and seed is required for meeting the domestic demand. Imports of seeds and planting materials are also allowed subject to the new policy on seed development 1988 and the provisions of the EXIM policy, 2002-07.

Pilot scheme on seed crop insurance: It was introduced from rabi 1999-2000 season to protect seed breeders/ growers in the event of failure of seed crops. The scheme is currently in operation in the states of Andhra pradesh, Gujarat, haryana, karnataka, Madhya pradesh, maharashtra, orissa, Punjab, rajasthan and uttar pradesh covering seed crops of paddy wheat , maize, jowar, bajra, gram, red gram groundnut , soyabean , sunflower and cotton.

Quite a large number of improved varieties of food grains have been evolved, which have helped in boosting up the production of food grain. Base on field trials the following varieties of wheat have been considered suitable for rain-fed as well as high fertility conditions. Larma rajo, sonara-64, sharbati sonara, kalyasn sona, 311(chotti laerma), safed lerma, hira (H D-1941), Narmada-4c. Meghdoot (H I – 7483), H.S.1097 –11, Moti, Pusa Lerma, U.P 215, U.P.310.H.D –1925, HD-1925, HD-1982, H.D-1999.HD 4502 and W.G-377. Some of these are of short duration, while others are late showing varieties and are grown where irrigation is available even up to the middle of January after the harvest of sugarcane, potato, toria, radish, carrots or turnips.

Characteristics of HYV'

- (1) The fields in which HYV seeds are to be sown, should have proper drainage facilities.
- (2) All varieties of short duration ranging from 100 to 140 days in different parts of the country.
- (3) Under better-irrigated conditions the HYV seeds are highly responsible.
- (4) These are coarse and therefore the market price is invariably lower than the other medium and finer varieties.
- (5) These are all dwarf varieties and they are responsive to higher doses of fertilizer application.

2.3.2 Chemical Fertilizers

According to an estimate, the use of one tonne of plant nutrients would be equivalent to adding about 4 hectares cropland in terms of additional production. Thus, it is one of the profitable means of land use and sustained agricultural production. In this regard National Commission on agriculture has rightly said, "It has been the experience throughout the world that increased agricultural production is related to increased consumption of fertilizers."

Manures and fertilizers play the same part in relation to the soil as food in relation to the body. Just as a well-nourished body is capable of the maximum effort, a well-nourished soil will have the best fertility.

The quality of the soil varies greatly in a country of the size of India. A systematic survey of the soils of India has not yet been carried out, though it is generally known that Indian soils are deficient in organic matter, nitrogen and phosphates. Soils samples have been analysed in different areas, but their correlation into a soil-survey for the whole country has not been undertaken. Field experiments have been conducted in various regions to determine the response of crops to various combinations of organic and inorganic manures, but in most cases crops responses and soil analysis have not been linked up. A very little work in connection with the effects of trace-elements in the soil has been done hitherto.

Organic matter, nitrogen, phosphorus and potash are the chief constituents, which must be supplied to the soil. Nitrogen is of the first importance in crop production. The soil has a mechanism by which it absorbs nitrogen from the atmosphere and makes it available to living beings in the form of grain and fodder; men and cattle derive energy from the consumption of these and the nitrogen taken from the soil is returned to it in the form of organic manures like farmyard manure, green manure, oilcakes, composts of various kinds, bone-meal and various types of chemical fertilizers, thus completing the nitrogen cycle.

Next in importance is phosphate. Plants absorb phosphates from the soil, which are returned to it through animal and human excreta and through decayed plants and their ashes and the bones of dead animals.

Indian soils, while deficient in nitrogen and phosphates, are generally rich in potash. Lack of potash does not, therefore, present a serious problem at present but it is one that should be watched.

Manures may be classified into two categories:

- i) Organic manures and
- ii) Inorganic manures.

Organic manures may further be sub-divided into:

- i) Bulky organic manures;
- ii) Concentrated organic manures.

Bulky organic manures include farmyard manure, compost manure, night soil and green manure, while concentrated manures are oil cakes, bone meal, dried blood, horns and hoofs, etc. Tropical soils often lack humus. The addition of bulky organic manures like farmyard manure, which is a by-product in farming by bullocks, helps the soil by increasing its water holding capacity, improving soil aeration, and by changing the plant nutrients through slow decomposition into forms readily available to plants. There are other advantages in the use of organic manures namely:

- I. steadiness in yield over a period of time
- II. benefit to the succeeding crops by their residual effects, and
- III. Ability to withstand unfavorable weather conditions.

In the case of inorganic or synthetic fertilizers, the most important nitrogenous ones are ammonium sulphate, ammonium nitrate, calcium nitrate, ammonium phosphate and urea. The important phosphatic fertilizers are super phosphate, rock phosphate and ammonium phosphate.

Type of Chemical Fertilizer

Chemical fertilizers are of three types as

- (1) Nitrogenous fertilizer: it comprises ammonium sulphate, sodium nitrate and urea etc. its impart a green colour to leaves and encourages the development of foliage. As regards cereals, it tends to produce succulence or tenderness in the plant.
- (2) Phosphatic Fertilizer: It comprises of bones and rock phosphates. When powdered rock phosphate is applied to the soil, phosphoric acid becomes readily available. It helps in the root development of crops, hastens maturity of crop. In case of cereals, it increases resistance to disease and improves the quality of crops.
- (3) Potassic Fertilizer: These comprise of potassium chloride and potassium sulphate. it helps the transference of food materials from one part of the plant to another. It also provides green colour to the leaves and tend to increase plumpness in grains.

Constraints or problems

The major constraints of fertilizer use can be identified as below:

1. Return Non – remunerative. The use of fertilizer is considered non –remunerative in the case of inferior cereals.
2. Non – Availability of fertilizers. A significant proportion of farmers have denied the use of fertilizers because of their non availability.
3. High Prices of fertilizers. The small and medium farmers do not use fertilizers due to its high prices. The cultivators lack sufficient capital to make this type of investment in fertilizer use.
4. Risk Element. Risk element implies the fear of heavy losses in case of failure of rains. This sort of fear is also experienced by big farmers.

Suggestions to increase Consumption of fertilizers are:

Some significant measures to increase consumption of fertilizers are:

- (i) fixation and operation of support price and procurement prices of food grains .
- (ii) creation of infrastructure like transportation, roads, warehouses and regulated market .
- (iii) Minimization of damage by disease, insects rodents, etc. in the fields of storage .
- (iv) Regulation of fertilizer application by testing soils.
- (v) Irrigation facilities should be created .
- (vi) Soil and moisture conservation techniques.

2.3.3 Plant protection and pest control

It is beyond any shadow of doubt that new seeds have increased the per hectare yield of various crops. Biologically, the crops sown through use of new seeds are more prone to diseases. The use of fertilizers for their production is also increases the susceptibility of these crops to diseases. It is estimated that every year nearly 10 per cent crops are damaged due to insufficient plant protection measures. The adoption of HYV of seeds has further increased the importance of such measures.

2.3.4 Insecticides

During recent the use of insecticides particularly DDT, BHC, and other similar chemicals has increased considerably. these chemicals are superior to those previously used because they act both as contact and stomach poisons . an ideal insecticide, however , is one which kills the harmful insect pests without creating any hazards to the consumer, human beings and cattle of the plants to which it is applied .it should also not upset in the long run the biological balance in nature by destroying other beneficent forms

of plant and insect life. More experience regarding the use of these insecticides and experimental evidence of their effect on human beings and cattle, who consume the straw and grain of the treated plant is required before their extended use can be recommended. There is a difference of opinion regarding their after –effects even in the most advanced countries.

Organized guidance regarding the use of pesticides is also necessary in this country as at present different firms market a variety of brands without authorized tests of claims made for their products.

Effective adoption of plants protection measures in the country suffered from two handicaps viz. lack of technical skill in the use of pesticides, ineffectiveness of individual operation. With a view to tackle the problem, it has been envisaged that during 1993-94. 5000 extension functionaries and 3000 farmers have been planned to be trained in IPM for rice and cotton.

2.4 AGRICULTURAL GROWTH DURING THE PLANNING ERA

AGRICULTURE IN THE FRIST PLAN (1951-56)

The first plan was launched with two-fold objective, viz., to correct the disequilibrium in the economy and to initiate simultaneously a process of all round balanced development, which would ensure a rising national income and a steady improvement in living standards.

Agriculture, including irrigation and power, was given the topmost priority in the Plan because without a substantial increase in the production of food and basic raw materials for industry, it would be impossible to sustain a higher tempo of industrial development. According, out of total outlay of Rs. 310 cores for major and medium irrigation (i.e. 16 percent), and Rs.260 cores for power development (i.e. 13 percent).

The first Five year Plan laid special emphasis on agricultural development, it envisaged the following increase in agricultural production.

It was proposed in the Plan to increase the production of food grains from 54 million tons to 62.59 million tons; of oilseeds from 5.16 million tons to 54.57 million tons; of cotton from 2.87 million bales to 4.21 million bales; of jute from 3.3 million bales to 5.4 million bales and of sugarcane from 5.7 million tons to 6.4 million tons during the plan period. For this purpose about 16 percent of the expenditure in the plan was earmarked for agriculture and community development projects and another 17 percent for multipurpose irrigation projects.

In order to achieve the programme of higher agricultural production, stress was laid primarily on improved tillage, viz., adoption of better cultivation methods, use of more fertilizers and improved seeds and a more plentiful and ensured supply of water. A special campaign was started to propagate intensive cultivation method of rice by the Japanese method of paddy cultivation. Campaigns were also organized for the development of intensive cultivation methods in case of crops like sugarcane. Apart from the technological improvements, attention was to be paid to the adoption of measures which would improved the psychology of the cultivator, give him an incentive and determination to improve his agricultural techniques and efficiency. These took the form of reform of land tenures and tenancy system, Organisations, on the other. Provision was also made for the improvements in other related spheres like marketing, fisheries, animal husbandry, soil conservation and forestry.

The three remarkable features about agricultural planning in the First Plan were:

- (a) The work was to be organized entirely by the State Governments. They were to manage the irrigation and

power projects and the central Government was to co-ordinate the work and to give general assistance.

- (b) The main emphasis was on long-term projects, the full advantage of this planning was to be felt after a period of 15 to 20 years when Indian agriculture will come to its highest development.
- (c) The object of the plan was not only to increase agricultural production but to bring about an all-around development in rural life.

AGRICULTURE UNDER THE SECOND PLAN (1956-61)

At the end of first plan, the country appeared to be out of the woods. Against this background the second plan was drawn up to meet the increasing demand for food and raw materials of growing population and expanding industries.

The target of food grains production was put at 15.5 million tons that is an increase of 24 per cent over the estimated production for 1955-56. The production of oilseeds, sugarcane, cotton and jute was expected to go up by 38, 35, 56, and 58 per cent respectively while agricultural production as a whole represented an overall increase of 27 per cent.

The higher production was envisaged to be achieved largely through improved techniques and propagation of intensive cultivation. But unlike the first plan, in which emphasis was primarily laid on crop production, the second plan aimed at a diversified agricultural economy as it included development of livestock and rural uplift measures side by side with increased crop production. In the programme for improved techniques and the spread of intensive cultivation, important items were: better irrigation facilities; greater use of manures and fertilizers; more widespread distribution of good seeds; and extension of the Japanese method of paddy cultivation.

As against Rs. 1,054 crores which were allotted for agriculture, the actual amount spent was Rs. 950 cr. Rs. 530 cr.

were devoted to agriculture and community development programme and Rs. 420 cr. To major and minor irrigation. This accounted for about 20 percent of the total outlay as against 31 per cent in the first plan.

AGRICULTURE UNDER THIRD PLAN (1961-66)

The planning commission observed: “in the scheme of development during the third plan the first priority necessarily belongs to agriculture. The experience in first two plan has shown that the growth of rate in agricultural production is one of the main limiting factors in the progress of Indian economy. Agricultural production has, therefore, to be increased to largest possible extent feasible.....both in formulating and implementing programmes for the development of agriculture and the rural economy during the Third Plan, the guiding consideration is that whatever is physically practicable should be financially possible and the potential of each area should be developed to the most extent possible.”

The *Third Plan* provided for an outlay on agricultural programmes including large and small irrigation schemes, soil conservation and co-operation, of about Rs. 1,281 crores, comparable outlay in the second plan being of the order of about Rs. 667 crores. These programmes aimed at nearly doubling the rate of growth of agricultural production.

The plan set two specific priority goals to be reached, viz. (i) to produce enough food grains to be self-sufficient: and (ii) to produce enough commercial crops to meet the needs of exports and industry.”

With these goals in mind, a target of stepping up agricultural production as a whole by 30 per cent was set. Food grains production was to be increased by about 32 per cent, of rice by 41 per cent, of wheat 50 per cent and of pulses 42 per cent. That of commercial crops, the targets of increase were set as 38 per cent, for oilseeds, 25 per cent for sugarcane, 37 percent for cotton and 55 per cent for jute. These targets called for substantial increase in the

crop yields per acre—these were expected to be 27 per cent increase in the case of rice, 20 percent for oilseeds and 18 per cent for sugarcane.

The target fixed for various crops are indicated below. The index number of total agricultural output (base 1959-60=100) was envisaged to rise from 139 in 1960-61 to 176 in 1965-66; and that of the food grains from 132 to 171. Thus, the Third plan assumed substantial stepping up of the annual rate of growth in Indian agriculture.

The higher rate of increase was to be brought about by the increased application of technology. These included:

- (i) Irrigation was to be put on 20 million more acres (11.5 million acres by major and medium projects and 8.5 million acres by minor irrigation works), bringing the net total to 90 million acres, nearly half of India's irrigable area.
- (ii) Soil conservation measures were to be undertaken on 11 million acres and dry farming techniques were to be adopted on 22 million acres. Land reclamation was to cover about 3.6 million acres.
- (iii) The use of fertilizers was to be increased—that of nitrogenous fertilizers by four fold (from 2,30,000 tons to 1 million tons) , that of phosphatic fertilizers about six fold , (from 70,000 tons to 4,00,000 tons) and that of potassic fertilizers by about eight fold (from 25,000 tons to 2,00,000 tons). Benefit of green manuring was to be available to about 41 million acres (it was 11.8 million acres in 1960-61).
- (iv) A nation-wide and intensive drive was made to introduce improved ploughs and farm implements and stimulate their manufacture.
- (v) 800 more seed farms were to be set up and additional seed store for every development block

so that about 150 million acres could be given the benefit of improved seeds.

- (vi) Farm extension and rural community development programme were to be extended to all the rural India by October 1963, to cover about 360 million farm people. Rural co-operative were expanded so as to cover about 60 percent of the farm families and have a membership of 37 million.
- (vii) 1,000 storage warehouses and 9,200 smaller grain storage godowns in the rural areas were to be setup in the country. These were to have a storage capacity of 2.5 million tons and 2 million tons respectively.
- (viii) Plant protection measures were to be undertaken on about 50 million acres.
- (ix) Co-operative farming was to be further encouraged by starting pilot projects in each of India's 320 districts, with an average of about 10 co-operative farms per districts.
- (x) 71 more key village projects were to be introduced for providing more breeding bulls and developing more fodder and feed resources.
- (xi) The production of fish was to be increased from 1.4 million tons to 1.8 million tons; that of eggs from 60 to 70 per hen per year and the table-birds to be increased to 65 million, that of milk from 22 million tons to 25 million tons and 55 milk supply schemes were to be introduced.
- (xii) Intensive Agricultural District Programme was to be put in selected districts, which have particularly favorable conditions for stepping up farm production.

ANNUAL PLANS AND AGRICULTURE (1966-69)

The Fourth Plan should ordinarily have commenced in 1966 on the expiry of the Third Plan but severe stresses and strains had been developing in the economy due to hostilities of 1962 and 1965, steep fall in agricultural production over two successive years in 1965-66 and 1966-67 and the devaluation of the Rupee in June 1966. These events necessitated readjustments in planning. It was, therefore, decided that the Fourth Plan should be abandoned for the time being and instead Annual plans for 1966-67, 1967-68 and 1968-69 be formulated. Accordingly, the three yearly plans were implemented. The total expenditure on agriculture during the three Annual Plans amounted to 1,624 crores: Rs. 1,167 crores or 17 percent was spent on agriculture and C.D. and Rs. 457 crores or 7 percent on account of the drought conditions during 1966-67, minor irrigation received a high priority.

Programme of highly yielding varieties along with the requisite application of chemical fertilizer was undertaken. As a result of good rainfall and new technology used in production, food grains production rose up to 95.1 million tons in 1967-68. The target for 1968-69 was fixed at 102 million but due to crop failures in different parts of the country, the actual production was of the order of 94.0 million tons

AGRICULTURE UNDER THE FIFTH PLAN

The Fifth Five Year Plan was formulated at a time when the economy was facing severe inflationary pressures. The major objectives of plan were to achieve self-reliance. And to adopt measures for raising the consumption standards of the people living below the poverty line. The Plan also gave high priority to bringing inflation under control through appropriate fiscal and monetary policies. The Fifth Five Year Plan targeted an annual growth rate of 5.5 per cent in national income. It provided Rs.8, 528 crores for agricultural development and irrigation, i.e., 20.5 per cent of the total outlay.

The Fourth Plan was more articulate about the need for special efforts to alter the skewed pattern of income distribution

and provided for separate schemes for the development of backward areas and the weaker sections. In the Fifth Plan removal of poverty has become a primary consideration for formulating programmes. The Fifth plan adopted the strategy of agricultural production of the previous plan based eminently on the exploitation of the high yielding varieties of cereals and multicropping, after some modification. Water management mainly in the irrigation commands of the major and medium irrigation projects in the country, created difficulties in Kharif production, particularly rice. A large programme of integrated development of irrigation commands in 50 major irrigation projects covering 14 million hectares was put through in the fifth plan. This could help not only the rice programme but also the multi-cropping programme with special emphasis on the cash crops particularly oilseeds and pulses which were in serious short supply. The small farmers and marginal farmer's schemes were unified and enlarged in the Fifth Plan. These schemes would have large programme of local construction mainly in earthwork, thereby giving employment to a large labour population in the off-season. In addition, the growth in the agricultural sector was expected to generate more employment opportunities through intensive farming in the command area. Besides research work on seed technology, a substantial programme for development of local manorial resources and strengthening of distribution arrangements for chemical fertilizers were some of the salient features of agricultural development in the Fifth Five Year Plan.

During the course of the Fifth Plan period agricultural production has been fluctuating widely. The new agricultural strategy introduced in the last decade seems to have succeeded in regarding fluctuations in wheat output only, while the output of rice and coarse cereals is still subject to large variations. The continued importance to the agricultural sector outlay on this sector.

In sum, the board strategy under the agricultural production will be to develop irrigation as rapidly as possible and optimally utilize land and water as well as other local resources in a coordinated manner.

Special attention to the poorer sections in the rural areas. Mixed farming would be promoted extensively as a means of increasing investment, employment and income per unit of land integrating crop production, animal husbandry, forestry and fisheries. The development policy will lay emphasis on the production of foods of higher nutritive value with a view to increasing the nutrition and health of the rural population. The comprehensive approach would incorporate elements, such as technology, institutions and services, which are required for improved and modernized agriculture.

AGRICULTURE UNDER THE SIXTH FIVE-YEAR PLAN

The sixth plan aims at a compound annual growth rate of 3.83 per cent in the gross value added in agriculture and over 5 per cent per annum in value of gross output. To achieve these goals and the stated plan objective, the main strategy for crop production during the sixth plan period is based on a steady growth of food grains production, substantial increase in pulses production, self-sufficiency in oilseeds and increased production of export oriented crops like tea, tobacco, spices etc. *inter alia* the aims of the agricultural programmes during the sixth plan period was:

- (i) to consolidate the gains already achieved ;
- (ii) to extend the benefits of new technology to more farmers, cropping systems and regions and to promote greater farm management efficiency through concurrent attention to cash and non-cash inputs;
- (iii) to make agricultural growth not only as an instrument of maintaining an effective national food security system but also a catalyst of income and employment generation in rural areas;
- (iv) to safeguard the interests of both producers and consumers, by attending to the needs of production,

conservation, marketing and distribution in an integrated manner.

Agricultural production during 1967-68 to 1978-79 has grown at an annual compound rate of 2.8 per cent, whereas in order to achieve an overall annual growth rate of the economy around 5.2 per cent during the Sixth Five Year Plan, it is crucial that annual rate of growth of production, which will vary for different crops, should be in the range of 4-5 per cent on the trend base in 1979-80. Table 4.6 indicates the Target of crop production for the Sixth Five Year Plan along with base levels.

AGRICULTURE UNDER THE EIGHTH PLAN

Agriculture and allied activities are important to the national economy, besides providing the basic needs of the society and the raw material for some of important industries. Agriculture has made important strides during the planning period. Agriculture and allied sector outlays increased from Rs. 238 crores in the first plan to Rs. 10524 crores in the seventh plan. During the eighth plan importance is being given to develop the agricultural sector. Eighth plan aims at consolidating the gains from the base built over the years in agriculture and allied programmes for the Eighth plan is Rs. 11105 crores. Important programmes to maximize agricultural production are being continued during the Eighth plan. The focus of development programmes is to extend improved technologies amongst the farmers.

Seed, fertilizer, pesticides and irrigation are the basic inputs for agricultural development. To support crop production to attain the target of crop production, the use of basic inputs will have to be pushed up. Accordingly targets of key input use have been fixed for the plan period.

AGRICULTURE DURING NINTH FIVE-YEAR PLAN

In the Ninth Plan high priority is being given to agricultural sector. During the Eighth Plan it was realized that food grains production is on decline in high productivity areas like Haryana and Punjab. Agricultural productivity in Eastern region is low. In the accelerated growth scenario for the Ninth plan efforts will be made to achieve an agricultural growth rate of 4.5 percent per annum. It has been stated that plan target for agricultural sector will be realized through a regionally differentiated strategy based on climatic and environmental friendly conditions. During the Ninth Plan efforts are being done for crop diversification and high value crops particularly in North-Western Region.

The agricultural development strategy for the Ninth Plan is essentially based on the Policy of food security announcement by the Government to double the production and make India hunger free in ten years. Accordingly the Ninth Plan target is to achieve a growth rate of about 4.5 per cent per annum in agricultural output and production of 234 million tones of food grains by 2001-02. In order to achieve the goal of doubling the food output and alleviation of hunger, a regionally differentiated strategy based on agro-climatic based planning is to be promoted for high productivity zone, low productivity-high potential zone, low productivity zone and ecologically fragile regions.

During the Ninth Five Year Plan emphasis will be on raising the capabilities of small and marginal farmers as well as conserving and maximizing the value from scarce natural resources. Emphasis will also be on infrastructure development and minor irrigation. Regional programmes will be formulated particularly for hilly backward and tribal areas. Agricultural credit will receive special attention and efforts will be made to increase public investment during the plan period. In every district rural infrastructure development fund will be used to promote productive projects. A high emphasis will be given for the development of the allied sectors such as horticulture, fisheries, livestock and dairy. Agricultural

exports will receive special attention and the co-operative will be strengthened. It has also been emphasized that agro-processing and agro-industries will be encouraged. The consumption of fertilizers (NPK) during 1996-97 was 14.31 million tones. During the Ninth Five Year Plan greater use of Bio-fertilizers and Bio-technological research will be encouraged.

The first, and possibly the most important, area of focus must be to raise the cropping intensity of our existing agricultural land. Climatically India is fortunate in that it is possible to have multiple crops practically all over the country. The critical problem through is water, as water resources are also under severe strain. Despite large investments in irrigation in the past, only about 40 percent of the agricultural area is irrigated. The progress on this front has slowed down considerably in recent years, particularly in terms of major and medium irrigation projects. Moreover, capacities of existing projects are also getting eroded due to insufficient expenditure on maintenance and up gradation.

Public investment in irrigation has fallen significantly over successive Plan periods. This is largely due to resource constraints faced by Government both at the center and the state.

The Tenth Plan must aim at a major revival of public investment in irrigation capacity and water management. Greater attention will also have to be paid to rain water harvesting and increasing the irrigation potential through scientific watershed development and minor irrigation.

The second priority must be the development of other rural infrastructure that supports not only agriculture but all rural economic activities.

It is also necessary to reorient the poverty alleviation programmers in a manner that they contribute more efficiently to the creation of rural assets, both private and community.

The third area that needs attention is the development and dissemination of agricultural technologies. Over the years India has

developed an extensive system of agricultural research centers and extension services. There is reason to believe, however, that the quality of the agricultural research efforts has weakened while the extension system has virtually collapsed. Strengthening of the agricultural research and development system, with special emphasis on biotechnology, and a significant improvement in the degree of sophistication in the technology dissemination methods are essential to achieving rapid and sustained growth in agricultural productivity. A radical overhaul of extension services is also needed.

Finally, the true potential of Indian agriculture can be realized only when there is diversification of agricultural products, both geographically and over time. The food and nutritional requirements of the people for leading healthy lives demand a wider range of food products than are presently consumed on the average. For such diversification to gain momentum, the requisite science and technology inputs will have to be provided along with appropriate supportive price policies.

2.5 LAND REFORM

By the term land reforms we mean reforms of institutional factors related to land. In order to raise the agricultural production and also increase the level of income and standard of living of the cultivators, institutional factors along with technical factors are playing an important role. These institutional factors include land tenure system, land holdings, farming structure, land distribution, intermediaries etc.

Land reform measures have been introduced by various underdeveloped and developing countries for attaining a rational land distribution pattern and viable farming structure.

Underlining the need for land reforms, the First Five Year Plan (1951-56) observed, "the future of land ownership and cultivation constitutes perhaps the most fundamental issue in national development. To a large extent the pattern of economics and social organization will depend upon the manner in which the land problem is resolved. Sooner or later, the principles and objectives of policy for land cannot but influence policy in other sectors as well."

ASPECTS OF LAND REFORMS

Broadly speaking, land reforms constitute the following:

- (a) abolition of intermediaries,
- (b) tenancy reforms including security of tenure, regulation of land, and conferment of ownership rights of tenants,
- (c) ceiling of land holdings and distribution of surplus land among landless workers and marginal farmers, and
- (d) consolidation of holdings.

a) **ABOLITION OF INTERMEDIARIES** : The British created the zamindari system with two objectives in mind: (A) to increase the revenue for the East India Company, and (B) to create a loyal class for themselves in an otherwise hostile alien country. However the zamindari system was very exploitative and proved a drag on the development of agriculture.

Soon after Independence, various State Governments enacted laws to abolish the zamindari system and established direct relationship between the tiller of the soil and the government. The abolition of intermediary rights has been the major achievement in the field of land reform. In varying degrees these rights had a long history behind them and they were the essential elements of power in the feudal structure. As results of the elimination of these rights, in states which had zamindari, jagirdari or other tenures, the state has now come into direct contact with the occupier of the land.

b) TENANCY REFORMS : In the Indian agrarian structure, intermediaries cannot be abolished altogether. In other words, a total ban of leasing or subleasing of land is neither feasible nor desirable . A minor , a widow , a mentally retarded person, or a member of the armed forces may have to lease out land to others. Thus, considerable land is held under tenancy and sub-tenancy in different parts of the country. It is, however, necessary to minimize the malpractices associated with letting and sub-letting of land.

c) Security of tenure : Tenants in the agricultural sector are ordinarily categorized into three groups: (a) occupancy of permanent tenants,(b) tenants-at-will, and (c) sub-tenants. The rights of the occupancy tenants are safe and they do not fear eviction so long as they pay rent on time. However, tenants-at-will and sub-tenants are in a weak position and their existence depends on the mercy of the landlords. Laws have been passed in the most of the states to protect tenants from ejection. According to these laws, land may be resumed by the owner for personal cultivation. It is interesting to note that many cases landlords force the tenants to voluntarily surrender the land to circumvent the law. The so-called voluntary surrenders are in fact the results of pressures and threats

d) Consolidation of holdings. A disturbing feature of the Indian agrarian scene is the declining size holdings. As a result of population explosion and rural indebtedness holdings are becoming small and fragmented. Therefore consolidation of holdings is an integral part of land reforms in India. Consolidation can be either voluntary or compulsory. Laws regarding consolidation of holdings differ from state to state.

Various factors have worked against consolidation:-

- Fear of displacement among tenants and share-croppers

- Advantage of having land in fragmented parcels in the events of floods and other natural calamities
- Apprehension that the bigger farmers would get a better deal

Problems associated with imposition of ceiling

The imposition of ceiling on land holdings is a ticklish problem. First of all, land is not alike in the whole of India or even in a state. Therefore, different ceiling limits have to be fixed on the basis of the quality of the land and nature of agricultural operations. Secondly, the unit of application has to be decided, i.e. whether ceilings would apply to holdings of an individual or a family. Thirdly, what exemptions, if any, would be made. Fourthly, how the person affected by the ceiling would be compensated and how the surplus land would be allotted.

Critical appreciation of land reforms in India:- Soon after the independence, land reform programmed was started with great fanfare to bring social justice to rural masses. Legislations were enacted in different states for the abolition of zamindari system, fixing ceiling on land holdings, regulations of rents, and security of tenure. Although the policy of land reforms was a step in the right direction, it failed to achieve the desired results. The experience so far has been disappointing. Various factors have worked against the success of land reforms.

Faults in legislation: The legislation enacted for land reforms in India is having built-in faults. These include unsatisfactory definition of personal cultivation; unlimited retention of land for personal cultivation; large scale transfer of land Zamindars to their family members leading to a large scale evasion of land ceiling law; inadequate definition of tenant from the point of view of tenancy reform; forcible voluntary surrender of land by tenant to landlord due to omission of share croppers and informal tenants from the provision of the laws related to

tenancy reform in some states and inadequate ceiling laws at the initial stage leading to realization of small areas as surplus followed by illegal transfer of land.

Lack of Political Will: Strong political will, determination and courage are very much important for the implementation of land reform measures related to restructuring property relations. But unfortunately, this is much absent in Indian context, which leads the land reforms measures into a mere slogan.

Thus, so long the required political will is not forthcoming; implementation of land reform measures in true spirit will be very difficult.

Bureaucratic Obstacles: Bureaucratic obstacles are also another impediment in the path of implementation of land reforms measures in India. Sometimes enthusiastic administrators are demoralized by political losses. The bureaucracy always tried to play safe by following a 'lukewarm' attitude. In some cases, even administrators have joined hands with the politicians to grab the surplus land. In this connection.

Thus, the rich peasant power is dominating in every layer of government and they are subverting the land reforms in such a manner that the implementation of land reform measures is becoming more and more difficult.

Uncoordinated: The land reforms policy in India is being implemented at a slow pace and also in a very uncoordinated manner leading to a total delay in implementing the reforms.

Differences in the laws related to land reforms: The laws related to land reforms are having some differences in different states. This has resulted slow pace of implementation in land reforms are also made it discriminatory. Moreover, these laws could not be implemented simultaneously at the national level in a smooth manner.

Litigation: The faults and defects in laws related to land reforms has resulted growing number of litigation which has

dampen the spirit of reforms and has also delayed its implementation. At present total number of land declared surplus under provisions of Land Ceiling Act but remained under litigation stands at 9.59 lakh acres.

Incomplete land records: Land records collected by the state Governments are incomplete. This has been creating difficulties in determining the ownership of lands, leading to implementation of land reforms difficult.

Ineffective Implementation: Another important reason behind the poor performance of land reforms is the lack of affective implementation of these measures. Due to these reasons the abolition of zamindari system was delayed and imposition of ceiling on land holdings could not derive a satisfactory result.

Non-Participation in Government Programmes: The land reforms in India could not make much headway as a result of non-participation of the people in the Government programmes. In India, marginal and small farmers, tenants and landless agricultural labourers are showing very much interest in the implementation of land reforms as a result of their ignorance and property. All these have resulted the implementation of the programme at a very slow pace.

Thus, considering all these factors it can be observed that under the prevailing situation it is very difficult to implement the various land reform measures in the country.

Suggestions for attaining success in the implementation of Land Reforms

In order to implement of the land reform measures successfully the following suggestions are worth mentioning:

1. **Effective Implementation.** In order to attain success in land reform measure, steps be taken by the Government for implementing these measures efficiently and also in most effective manner. For this purpose, a time bound programme should be chalked out.

2. Efficient Administrative Machinery. For implementation the land reforms at a quicker pace, the administrative machinery of the government should become efficient upto district and tehsil level. The officials engaged in the department must acquire adequate knowledge on the laws related to land reforms for their smooth and speedy implementation.
3. Up-to-date Records. For successful implementing of land reforms, up-to-date land records should be prepared and steps also be taken to up-date the land records continually through computerization.
4. Simplifying Legal Methods. For speedy and smooth implementation of land reform measures the legal provisions relating to it should be simplified. Special courts may need be set up for speedy disposal of cases in a most economic manner.
5. Land Reform Laws. Land reform Laws should be made unchallengeable. Raj Krishna Committee has suggested, in this connection, that the laws relating to land reforms should be incorporated in the Ninth scheduled of the constitution so as to make it more firm and unchallengeable.
6. Popularizing Laws. In order to popularize the laws relating to land reforms there should be comprehensive publicity of such laws among the rural people. These laws should be published in different languages and be distributed through Block Development Officials. This sort of publicity would arouse consciousness of the poor farmers about their right and duties related to implementation of land reform measures.
7. Quick Distribution of Acquired Land. Adequate steps must be taken to distribute the acquired ceiling surplus land quickly among the poor and landless cultivators for its best possible uses.

8. Lessening Political Interference prevailing in the implementation of land reforms should be reduced to minimum level so that land reform laws can serve for the best interest of the country.
9. Village Societies. Steps be taken for setting up village societies for the effective and efficient implementation of the land reforms. Members, enrolling their names in such societies can take adequate suitable steps for the implementation of land reforms.
10. Financial assistance. Farmers getting ceiling surplus land should get adequate financial assistance for the proper use of their land. The Agriculture Department should also provide necessary know how and others assistance for the best utilization of such land.

2.6 AGRICULTURAL MARKETING

According to Faryque, “Agricultural marketing comprises all operations involved in the movement of farm produce from the producer to ultimate consumer.”

Marketing is the last link in the chain of production process. An efficient marketing system which ensures reasonable return to the producers is essential to induce them to produce more.

In the post independence period and particularly after the green revolution, agricultural marketing has become a prime concern for the planners. Due to increase in agricultural productivity, the marketable surplus has increased, necessitating reforms in the existing system.

The objectives of these reforms are to ensure:

- Fair prices for the produce of the farmers,

- Adequate and regular availability of food grains for urban areas, and regular supplies of raw materials for the industries.

Various system of agricultural marketing exist in India.

The bulk of arrivals is from villages or village hats. These markets are periodically held, either once or twice a week or at longer intervals or on special occasions. Agricultural produce or livestock or both are sold in these markets.

The area served by a hat or a sandy varies considerably. In some cases it is only one village but in others it may have a radius of 6 to 7 miles.

Such markets are organized by village panchayat and every shopkeeper has to pay some rent for the space he occupies. Higgling and bargaining is a common feature. The village *bania* acts as a middleman in return for a small commission.

These are usually are situated in the district and *taluka* headquarters, important trade centers or near railway stations. Here transactions are generally between wholesalers or between wholesalers and retailers.

These are wholesale markets held in fixed places where business is transacted daily. The produce is handled in large quantities and specialized operators become necessary for the performance of different services. In these markets produce like fruits, grains, vegetables, etc. are sold. They enjoy facilities of storage, handling and banking services and are well served by roads and railways. These markets are both decentralized and centralized, where *arhatiya* work. They are usually owned by private persons or local bodies.

Terminal Markets, are those markets in which the produce is either finally disposed of direct to consumers or processor or assembled for shipment to foreign destination or redistribution to surrounding areas. Such markets are usually the ports, which

possess sufficient warehousing and strong facilities and cover a very wide area extending over even a state or two.

It may be observed that a particular market may function as a primary wholesale market for some agricultural commodities which are produced locally and as a secondary market for other commodities. Again even for the same commodity a market may function as primary wholesale market for certain parts of the year and as a secondary wholesale for the rest of the year.

Fairs: Fairs are held on religious occasions pilgrim centers and they are significant places of marketing of agriculture commodities. About 1700 fairs are held which deal in agricultural produce and livestock. Of these, 50 percent dealing livestock, 10 percent livestock both in livestock and produce and 40 percent dealing only agricultural produce. These are mostly popular in Maharashtra, U.P, west Bengal and Rajasthan.

Regulated Markets: Such markets have been setup by the government with the sole purpose of checking fraudulent practices, which are common with the traders in the primary and secondary markets. In these markets, government regulations are strictly followed.

Co-operative and state Trading: The co-operative market function on the basis of the principles of co-operation while state trading is done by Government agencies like Food Corporation of India. The main motto of co-operative markets is to eliminate middlemen and intermediaries and supply the entire produce to the consumer directly. On the other hand, state trading agencies setup their centers especially during the harvest days to procure produce from cultivators at fixed prices.

PROCESS OF AGRICULTURAL MARKETING

In the movement of agricultural commodities from primary production to the ultimate consumers, the following three processes are involved viz.

1. Concentration 2. Equalization 3. Dispersion

1. Concentration: The process of concentration begins with the collection of small surpluses of individual farmers in the markets of the producing areas. From these centers agricultural commodities are transported to the wholesale markets. Concentration is necessary because every farmer produces a small quantity of crop, goods have to be different crop are grown in different seasons; and the demand for commodities varies with different consumers. In a sense, assembling or concentration begins as soon as farm products leave the farm.
2. Equalization: The process of equalization begins with the arrival of agricultural produce in the wholesale market. The wholesale market releases the supply which has come from the various producing areas, to ensure a regular flow of the commodity for ultimate consumers.
3. Dispersion: Dispersion means the arrangement for the distribution of agricultural commodities among the consumers through the retailers.

It is important to note that the processes stated above are not uniform for all agricultural commodities. It is not necessary for all commodities to pass through these processes. In our country some agriculturists sell their produce in the villages to the banjaras or the agents of the arhatias. Some of them sell their commodities directly to the retailers or consumers.

PROBLEMS OF INDIAN AGRICULTURAL MARKETING

1. Lack of Organization. The first thing that strikes the observer is the lack of any kind of collective organization among the producers. The buyers of agricultural produce specially in the case of money crops, usually operate on the large scale and are organized while the producers are invariably small scattered over a wide area with no

common organization to guide them and to protect their interests, while purchasers of commercial crops on the other hand, are large scale to find that the producers of agricultural products as a class are being exploited by the purchasers.

2. Agricultural marketing system in India is highly exploitative. Consequently Indian farmer is deprived of fair prices for his produce. The main defects of agricultural marketing are discussed here under.
3. Inadequate Facilities of Transport . The available means of transportation are inadequate and far from satisfactory , No doubt , a good development has been made in respect of both railways and pucca roads in order to carry their products to mandies. In this process, a lot of labour and time is wasted. Moreover, this method is very expensive.
4. Malpractices in Mandies. A number of malpractices prevail in Indian agricultural market system. Arthityas and brokers take advantage of the illiteracy of the framers and they use unfair means to cheat them .Similarly, the system of setting rates is also not free from suspicion and abuse. Therefore, bargaining is disadvantageous to the farmers.
5. Lack of Credit Facilities. The Indian farmer is poor and he has to depend on village money lenders for his financial requirements. He does not have sufficient means to pay land revenue in time . Thus, he is compelled to sell off the produce immediately after the crop is harvested though prices at that time are very low. Therefore, to safeguard the farmer from this forced sale, it is necessary to provide him credit facilities so that he may wait for better prices. Since, such credit facilities are not available; the farmers are forced to tie up in the clutches of money leaders.

6. Luck of Market Information. The Indian farmer does not have necessary information about the prices in different markets. He has a little contact with the outside mandies and depends mostly on the reports received by local baniyas. The information is based in favour of the market money. Often, he takes his produce to the market mandies where he gets very lower price for his produce. Hence, he keeps away from getting reasonable return for his produce.
7. Unregulated Weights and Measures. Another defect of agricultural marketing is that a large variety of weights and measures are used. This practice affords greater chances of cheating the ignorant cultivators. Here, it must be noted that government of India has introduced uniform system of weights throughout the country. But, still this practice is commonly found.
8. Luck of Grading and Standardization. Still another defect of agricultural marketing in India is dishonest functioning in the market. They can declare any produce inferior and consequently quote lower prices for such stocks. This practice prevails both in private and Govt. agencies. This, the farmer producing better qualities is not assured of better prices, which further loses incentive to produce quality products. In this way, both consumers and producers lose while intermediaries make profit out of this practice.
9. Excessive Market Charges. The market charges are very high. The producer is made to pay for services which he dose not receive. Unanuthorised charges like charges of peon, sweeper, etc. are entitled to the share of the farmer's produce.

10. Luck of Storage Capacity. There is absence of proper warehouses in villages. As a result, the farmer is compelled to store his produce in pits, mud vessels and kutcha store house etc. these unscientific methods of storage lead to considerable wastage. According to an expert report, from 12.5 to 2.5 per cent produce is wasted for nothing.
11. Adulteration. Adulteration is resorted to whole marketing crops and one of the most significant reasons for such deliberate adulteration of agricultural produce is the high amount of deduction allowed in most of the market on non-mutual terms. In fact, this adulteration in food and non food crops has brought bad name to the country.

Measures of improve Agricultural Marketing

Defects in present system of agricultural marketing can be removed by providing the followings facilities to the farmers.

1. In view of the poverty of the Indian farmers, it is necessary to provide them with credit facilities at the time of harvest so that they are not forced to sell their produce at that time. Soon after the harvest, the prices of agricultural products are relatively low. Farmers should have the choice to wait for better tomes, i.e. better price. This can be done by providing them with short-term credit to build their staying power.
2. If the farmers decide to postpone the sale of their produce in view of low prices at the time of harvest, they should have proper warehousing facilities. Government should provide scientific storage facilities at reasonable charges in or near

the villages. This task can be entrusted to the Central Warehousing Corporation and the State Warehousing Corporations.

3. Next in logical order are the transport facilities. Villages in India are not well connected with cities and townships through pucca roads or railways. If efficient transport facilities are available to farmers throughout the year, they can take their produce to markets of their choice to secure remunerative prices.
4. It is also necessary to provide adequate and latest information to the farmers regarding prices of various agricultural commodities prevailing in different markets. Although this is being done through radio and television, there is the need to extend the coverage of these facilities to all parts of the country.
5. Farmers should be provided with reasonable amenities in the mandies. Efforts should be made to reduce the presence of large number of middlemen in the mandies who erode profits of the farmers considerably. Arrangements should exist for grading and standardization of agricultural produce. More over provision should be made for following facilities in the mandies. Viz. post office, banking, lodging and boarding for overnight stay and parking for vehicles.

Improvement in the marketing system will go a long way to ensure remunerative prices to the farmers, inducing them to produce more.

Government and Agricultural Marketing

Regulated Markets. Regulated markets have been organized with a view to protect the farmers from the malpractices of sellers and brokers. These regulated markets check all unfair practices prevalent in most of the cultivators. In most of the States, Act of Agricultural product market has been passed. According to this act, there were nearly 1000 regulated markets in 1951 which rose to over 6050 agricultural markets by the end of March, 1988 . The management of such markets is done by a Market Committees are appointed by the Government for a specified period. This committee performs various functions. The important functions of this committee are high lighted below:

- (i) Fixation of charges for weighting and brokerage etc.
- (ii) Enforcing the use of standardized weights.
- (iii) Prevention of unauthorized deductions, underhand dealings and wrong practices by Arthatiyas.
- (iv) Providing up to date market information to the farmers.
- (v) Settlement of disputes.

Use of standard weight and Grading .Another major defect of unregulated market was the was use of arbitrary weights to cheat the farmers by the brokers. In order to stop this practice, the government has passed the standard weights Act in 1939. The Central Government adopted the Metric System of Measures in 1958 when an Act to this effect was passed by the Parliament. Moreover, the state Government has also appointed weight inspectors. They insist on uniformity of weights. Shopkeepers are required to use weights bearing Government stamps.

Provision of Finance: It is well side that the provision of adequate financing in the rural areas is very bored issue .As is known that Indian agriculturist always remains under debt; thus, availability of sufficient finance pulls him out of pressures of money lenders to sell the produce at the cheaper rate. There fore, a good number of public agencies should come forward in the task of arranging adequate facilities of finance for the peasantry.

Consumer Protection: Producers and consumers are the two main elements in marketing process. Therefore it is necessary for the Government to protect the interests of the producers and consumers. Producers are sought to be protected through the regulation of market while the consumer's interests are safeguarded through grading under 'Agmark' at the level of traders. In fact, there is a need of an active consumer movement. To this effect. Consumer's Guidance Society was set up in 1966 with the objective of educating the consumers about their rights and responsibilities. But still, it needs to be accelerated.

Improvement in Means of Transport: Cheep and easy means of transportation encourage the farmers to carry their produce to markets and create confidence among the farmers and improve their bargaining power. Therefore, transportation play an imperative role in marking the market system efficient and useful. Therefore, within an integrated road development programme, rural roads have been given top priority. it has been recommended in 1988 that every village with a population of 1000 and more will be linked by roads. It has rightly been said by the National Commission on Agriculture that the link up and associated road development is sine qua non for the success of market structure.

Market Information: The producers should have perfect knowledge of prevailing market prices so that may get benefits of efficient marketing system. All India Radio and Doordarshan arrange broadcasts prices of agricultural goods. This will make

them to be aware about the current prices of the different markets. Similarly, the Directorate of Economics and Statistics is responsible for collection, compilation and dissemination of market intelligence. This information provides healthy infrastructure for the proper functioning of the market.

Market Inspection, Research and Training: There is a dire need to make adequate arrangements for marketing education, research, extension, market inspection and occasional surveys of market which will go a long way to help in identifying problems and finding solutions for efficient marketing system. The need to investigate marketing methods, changing demand, cost and prices is no less significant.

Progress: The government has paid attention to these requirements. The Directorate of marketing and inspection undertakes inspection of major agricultural products throughout the country. The directorate also undertakes research in various marketing problems.

Grading and Standardization: It means preparation , shifting and sorting of material according to certain criteria. It provides confidence to the consumers. The government has realized the need to introduce the standardization of agricultural produce. The Government passed the Agricultural Produce Act in 1937. Initially, the grading was introduced for sun, heap and tobacco. According to this Act, grading stations have been set up for several commodities. Graded goods bear the 'Agmark' indicating that their quality conforms to certain prescribed standards. It will induce farmers to grow quality products. The grade standards prescribed under this Act are based on both physical and chemical features and formulated after analyzing representative samples of each commodity collected from different areas. A number of grading centers have been

established by the Marketing Board for securing an adequate return to the benefits of grading.

Marketing of agricultural produce is the most important activity for the farming community, particularly for those who are small producers and have small surpluses for marketing. To protect the interests of farmers, government promoted organized marketing of agricultural commodities through a network of regulated markets. However, studies indicate that the institution of regulated markets have achieved limited success, as this markets restricted development of direct and free marketing,

Smooth raw material supplied to agro-processors, information exchange and adoption of innovative marketing systems and technologies.

To benefit the farming community from new market access opportunities, the internal agricultural marketing system in the country needs to be integrated and strengthened. In this context. An inter-Ministerial task force set up by the Ministry of Agriculture suggested a package of reform measures, such as amendments in the state' Agricultural produce acts to encourage development of competitive agricultural markets in the private and co-operative sectors, and deregulation of marketing system promote private investment in marketing infrastructure.

The Department Of Agricultural and Co-operation has formulated a modal law on agricultural marketing and contract farming in consultation with the state government and representatives of trade and industry. The salient features of the modal law are given below.

- Legal persons, growers and local authorities permitted to establish new markets in any area.
- No compulsion on growers to sell their produce through existing regulated markets.

- Establishment of direct purchase centers, Consumers/Farmers Markets for direction.
- Promotion of public-private partnership in the management and development of agriculture and markets.
- Separate constitution of special markets for commodities like onions. Fruits, vegetables and flowers.
- A separate chapter to regulate and promote contract-farming arrangements in the country.
- Prohibition of commission agency in any transaction of agricultural commodities with the producers.
- Market committee to promote alternative marketing system, contract farming, direct marketing and farmers/ consumers markets.
- State Marketing boards to promote standardization, grading, quality certification, market led extension and training of farmers and markets functionaries in marketing related areas.
- Constitution of state marketing standards bureau for promotion of grading, standardization and quality certification of agricultural product.

2.7 LET US SUM UP

Agricultural sector plays a strategic role in the process of economic development of a country. Modernization of agriculture made a significant contribution to the economic development of a country. In a sense, development of agriculture through modernization is an essential condition for the development of the national economy. In this unit you have learnt about agricultural marketing, irrigation, agricultural inputs, land reforms etc.

Key words

Farm Mechanization – use of mechanical implements for farming.

Land reform – Reforms of institutional factors related to land.

Suggested Readings

1. *Agricultural Economics* : R.K. Lekhi, Jogindra Singh, Kalyani Publisher's, New Delhi.
2. *Rural Development* : Katour Singh, Saqe Publications, New Delhi.

UNIT – 3 : INSTITUTIONAL CREDIT FLOW IN INDIA

- 3.0 Objectives
- 3.1 Introduction
- 3.2 Institutional credit flow to rural sector
- 3.3 Micro finance-SHG movement
- 3.4 Agricultural taxation in India
- 3.5 WTO and Indian agriculture
- 3.6 Let Us Sum Up

3.0 OBJECTIVES

This unit discusses the role of institutional credit for the development of agriculture sector. A careful reading of this unit will equip you with an understanding of:

- Institutional credit flow to rural sector in India
- food security in India
- conditions and problems of agricultural labourers

3.1 INTRODUCTION

The wave of liberalization has encouraged the institutional agricultural credit. In the initial stage of post independence period. Indian farmers were depending to much on unorganized sources of agricultural credit, that is on money lenders, landlords etc. But with the passage flow of agricultural credit by various agencies has increased.

3.2 INSTITUTIONAL CREDIT FLOW TO THE RURAL SECTOR

The general policy on agricultural credit has been one of progressive institutionalization aimed at providing timely and adequate credit to farmers for increasing agricultural production and productivity.

Credit requirements of the farmers may be classified

- (a) on the basis of purpose
- (b) on the basis of time

They need credit for productive purpose, such as purchase of inputs and for unproductive purposes which includes celebration of marriages etc:

Finance required for productive purposes can be divided broadly into:

- Institutional credit flow to rural sector in India
- Short term (for period upto 15 months)
Short term loans are required for purchasing manures, fertilizers seeds or for meeting labour charges etc.
- Medium term(from 15 months unto 5 years)
Medium term loans are required for purchasing bullocks, pumping plants etc
- Long term loan(above 5 years)

These loans are utilized for payment of old debts, purchase of the heavier machines and increasing the size of holding.

The following agencies provide finance to the cultivators:

Private agencies

- Money lenders and land lords
- Commercial banks

Public or semi public agencies:

- The government
- Co-operative societies
- Till independence in 1947, money landers and the land lords were the principle sources of rural credit.

Over the years, the operations of money Landers have declined. The co-operative credit society's act of 1904 was intended to meet the short term needs of the farmers. Infact the major thrust in the area of agricultural credit during this period was more the prevention of exploitation of the peasants by money landers, rather than promotion of capital formation in agriculture. Later on after 1954 Reserve Bank Of India and Government of India though of the state partnership with co-operatives and there was a massive infusion of funds to the sector.

- State co-operative banks (SCBs), perform the following functions.
- Serve as balancing center in the states
- Organize provision of credit for credit worthy farmers.
- Carry out banking business
- Leader of the co-operatives in the states

Debt owed to different credit agencies by rural households

Credit Agency	Year	
	1971 (in percentage)	1981 (in percentage)
Institutional	29.2	61.2
Government	6.7	4.0
Co-operative Societies	20.1	28.6
Commercial banks	2.2	28.8
Others	0.2	0.6

Source: All India Debt and Investment Survey, 1981-82, RBI Bulletin, June 1986.

The above table reveals that institutional agencies contributed 61% to the cash debt of the rural households in 1981 as against 29% on 1971. Among the institutional agencies, the share

of debt due to commercial banks in total debt was 28% in 1981 as against only 2% in 1971.

Co-operative societies suffer from various weaknesses. The heavy overdues of co-operative societies are a cause for concern. The rising overdues have reduced the borrowing and lending activities of these societies. And influential people in the villages have been the main beneficiaries of co-operative credit. Again the RBI has repeatedly expressed concern about the non repayment of loans by the existing borrowers can adversely affect recycling of funds and the credit chances of the respective borrowers.

The NABARD

The National Bank for Agriculture and Rural Development was set up in 1982 by the Government of India with the following mandate.

- To serve as a refinancing institution for all kinds of production and investment credit to agriculture small scale industries, cottage and village industries, handicrafts and rural artisans and other allied economic activities with a view to promoting integrated rural development.
- To provide short term, medium term and long-term credit to state cooperative banks, RRBs and other financial institutions approved by RBI. .
- To give long-term loan to any institution approved by central government or contribute to the share capital or invest in securities of any institution concerned with the agriculture and rural development.
- Responsibility of coordinating the activities of central and state governments, the planning commission and other all India and state level institution entrusted with the development of small scale industries, village and cottage industries, rural crafts, industries, in the tiny and decentralized sector etc.
- Responsibility to inspect RRBs and cooperative banks
- To maintain a research and development funds to promote research in agriculture and rural development to formulate and design projects and programme to suit the requirements of different areas and to cover special activities.

Regional Rural Bank

The establishment of the Regional Rural Banks has been the landmark in the history of rural banking. These Banks were introduced in 1975 to strengthen the institutional rural credit structure. Prior to Regional Rural Banks, commercial banks and co-operatives were active in the disbursement of rural credit. But, they were not able to meet the credit requirement in the rural areas. Therefore, a committee under the chairmanship of Shri N. Narisimham was set up to give suggestions to fill the gap in the

disbursement of rural credit. This committee suggested the institution of Regional Rural Banks, as low cost Banking for rural areas which should be setup particularly to meet the credit needs of rural areas. Hence, on October 2,1975, five regional rural banks were set up at Moradabad and Gorakhpur in Utter Pradesh, Bhiwani in Haryana, Jaipur in Rajasthan, and Malada in West Bengal. These banks were sponsored by the Syndicate Bank, State bank of India, Punjab National Banks, United Commercial Bank and United Bank of India.

Management

The management of each regional rural bank is vested in nine-member board of directors, headed by a chairman. The strength of the Board could be raised to 15 with the approval of the Govt. of India. The Chairman of the Board is appointed by the Central Govt. the Chairman is a paid servant of the sponsoring bank while the Directors are honorary.

Concessions to RRB

The RBI has been granting many concessions to regional rural banks for conducting smooth business in the initial stages of its development. These concessions and privileges are:

1. Regional Rural Banks are allowed to maintain cash reserve ratio at 3 per cent and statutory liquidity ratio at 25 per cent.
2. Regional Rural Banks are provided refinance facilities through NABARD.
3. These banks are allowed to offer a rate of interest on deposit at one half per cent more than what is offered by the scheduled commercial bank.
4. RBI has formulated a scheme for free transfer of funds between head office of regional Rural Bank and its different

branches through the office of the public sector bank operating in areas covered by RBI

5. The govt. has also prescribed that the rate of interest charged by RRBs on its direct loans to the specified categories of the rural societies would be at par with the interest rate charged by the primary co-operative societies to its clients.
6. The facilities offered by the deposit insurance Corporation of India have been extended to RRBs providing their depositors an insurance up to Rs. 10,000 of deposits.
7. RBI has made appropriate amendment in the relevant Act to enable the RRB's to be financed from the two special funds of the Govt. of India i.e. National Agricultural Credit Fund (Long Term Operation) and national credit fund (stabilization).
8. RRBs have been treated equivalent to the co-operative credit in context of income tax benefits.

STATE CO-OPERATIVES BANKS

Being head of the entire co-operative structure at the state level, these institutions mobilise and deploy financial resources among the various sectors. It finance and controls the working of the central banks in the state. It serves as a link between the Reserve Bank of India from which it borrows and the co-operative central banks. Thus, it is through this agency alone that the finances provided by the Reserve bank flow to the Agriculturist. They balance the excesses and deficiencies of working capital of central banks. It is through them that the resources of the general money market reach the primary societies through the central banks.

Functions

The various functions performed by the state co-operative bank are mentioned below:

1. As the reserve of India serves as a banker's bank to the commercial banks, state co-operative banks in the same way, it acts as a banker's bank to the central co-operative banks.
2. State co-operative banks facilitate the respective state govts. To draw up co-operative development and other development plans as well as their implementation.
3. State co-operative banks serve a link between co-operative credit societies, commercial banks as well as between the Reserve Bank of India.
4. These banks supervise control and guide the activities of central co-operative banks.
5. These banks grant subsidies to the central co-operative banks to the development of co-operative activities.
6. These banks also Perform normal banking Operations.
7. State co-operative banks formulate and execute uniform credit policies for the co-operative movement of the Govt.
8. These banks co-ordinate their own policies with those of the co-operative movement of the Govt.

Lending Policies

As an apex bank, state co-operative banks provide short term loans for twelve months both to finance agriculture operation as well as a for the marketing of crop and distribution of controlled commodities. Moreover, medium term loans are granted for purchase of cattle and machineries reclamation of land, sinking and renovation of irrigations wells, constructions of farm sheds, go downs, etc.

Weaknesses

The weaknesses of state co-operative banks are stated below :

1. Poor mobilizations of deposits
2. Defective investment policy.
3. Lack of supervisions and inspection.
4. Increasing over dues.
5. Failure to assess the genuiness of borrowing of central banks.
6. Lack of confidence and, less initiative by the rural people.

3.3 MICRO FINANCE AND SHG MOVEMENT

The uniqueness of these groups lies in the fact that to a large extent they are self-supporting self-governing organizations free from bureaucratization and politicization. The process empowers the poor and enables them to control direction of own development by identifying their felt needs.

Characteristics of SHG

Homogeneity has been the strongest feature of SHGs. The members are linked by a common bond like caste, sub-caste, community, the place of origin or activity. Even if the group members are from similar economic activity, say pottery, the basis of group affinity is a common caste or origin. Therefore, the nature of these groups is slightly different from what is globally known as 'solidarity groups' The SHG movement added a very significant dimension as it was to be linked with the micro finance. Micro finance (MF) has now been widely accepted as an effective intervention strategy for poverty alleviation, which is easily accessible to the poor, reduces transaction cost and where repayments are designed to fit cash flow for the borrowers. Micro finance includes thrift, credit and other financial services and products of very small amount. There may be various medium of

Micro finance; however, the most prominent among them has been the medium of SHGs. In 1992, national bank (NABARD) gave a fillip to the movement when it started the SHG-Bank linkage programme. This was the first major attempt to link the mainstream financial institutions with the informal groups, thereby, linking them with the market. Till then, the role of financial markets in poverty alleviation and its implications of developing an NGO constituency in financial service landscape had remained a grossly under-explored area in policy research.

Estimated 7000 micro finance institutions are operating around the developing world of which around 1600 are in India. Out of these, 720 are involved in NABARD's NGO-SHG-Bank Linkage Programme

The major form of microfinance in India is that based on Self Help Groups (SHGs), which are small groups of 10-20 members. These groups collect savings from their members and provide loans to them. However, unlike most accumulating savings and credit associations (ASCAs) found in several countries, these groups also obtain loans from banks and on-lend them to their members. By 2003, over 700,000 groups had obtained over Rs.20 billion (US\$425 million) in loans from banks benefiting more than 10 million people. Delinquencies on these loans are reported to be less than 5 percent. Savings in these groups is estimated to be at least Rs.8 billion (US\$170 million). Despite these considerable achievements, sustainability of the SHGs has been suspect because several essential services required by the SHGs are provided free or at a significantly subsidized cost by organizations that have developed these groups.

The Reserve Bank constituted four informal groups in October 2002 to examine various issues concerning micro-finance delivery. On the basis of the recommendations of the groups and as announced in the Governor's Statement on mid-term Review of the Monetary and Credit Policy for the year 2003-04, banks have been advised as under:

1. Banks should provide adequate incentives to their branches in financing the Self Help Groups (SHGs) and establish linkages with them, making the procedures absolutely simple and easy while providing for total flexibility in such procedures to suit local conditions.
2. The group dynamics of working of the SHGs may be left to themselves and need neither be regulated nor formal structures imposed or insisted upon.
3. The approach to micro-financing of SHGs should be totally hassle-free and may include consumption expenditures.

Weaknesses of the SHG

There are certain inherent weaknesses of the SHG mode of intervention. Such an intervention is being marketed as a 'tool kit' for poverty alleviation and tends to ignore larger structural bottlenecks like inadequate agricultural infrastructure-irrigation, roads and highly in egalitarian distribution of land. Given the preoccupation with regularity of repayment, the credit programme shows a clear bias towards activities like petty trading (Due to daily cash flows), which do not result in significant value-addition to promote capital formation.

Solidarity is an expensive input for financial services production as the costs of group formation and interaction outweigh the benefits of high repayment with group control. The MFIs are generously assisted by grants and cheap credit. SHARE had a grant component to the tune of 69 per cent of their total fund in 1998. It is thus anticipated that to be effective and productive, the promotion of SHG for ensured access credit is necessary.

3.4 AGRICULTURAL TAXATION IN INDIA

The taxation of agriculture has an important role to play in the acceleration of economic development. Since it is only the

imposition of compulsory levies in the agricultural sector itself, which enlarges the supply of saving for economic development.

Agricultural taxation includes taxes paid by the agriculturist directly and also those borne by them indirectly. Direct taxes on agriculture consist mainly of land revenue and agricultural income tax. These taxes are levied and collected by the states. As consumers, they may also be paying excise duty, sales tax, import duty, and so on.

Agricultural property and some agricultural income were being taxed in the early 1990s, but the revenue from these taxes were negligible. In the early 1950s, however, land revenue, agricultural property taxes were a significant form of government income, providing just under 10% of the tax revenue of the central state, and union territory governments.

At the end of the 1980s, that proportion was less than 1% because land revenue had been fixed. The national average was Rs. 16.50. Agricultural property also was subject to stamp duties and registration fees. Between 1950 and 1990, only about 1.5% of the total taxes collected by the central, state and union territory governments came from the agricultural sector. Overall, the impact of tax on Indian agricultural property was negligible but was a likely target for economic reform in the mid 1990s.

Agricultural taxation in India has been collected as a federal tax, but it has been levied only on income from plantations. All other agricultural income has been exempted from tax. The total collection from this tax was less than 1% of the total taxes collected by the central, state and union territory governments in fiscal year 1950, in the late 1980s; it had dropped below 0.3%.

The share of direct agricultural taxes as percentage of state tax revenue as well as percentage of total tax revenue of central and state governments is given in the table below.

Year	Land Revenue (Rs Crores)	Agricultural Income tax (Rs Crores)	Agricultural taxes as percentage of State tax revenue
1950-51	48	4	18.6
1970-71	113	11	5.4
1997-98	1400	210	1.3

Source:- RBI, Report on currency and Finance 1996-97 and other previous issues.

Table shows the direct agricultural taxes have been yielding more incomes to the state government. The table also shows that the percentage of state revenue has rapidly declined since economic planning started from 18.6 per cent 1951-52 to (2) 1.3 per cent in 1997-98.

According to taxation enquiry commission the incidence of taxes on rural population is less than half of what it is on the urban population. The urban sector and particularly the manufacturing and trading sectors have had to surrender more and more of their earnings to the governments in tax payments. It has become imperative to look for new sources – it is in this context that the taxation of agriculture is assuming great significance.

Additional taxation of the cultivator is also justified by the relative increase in the taxable capacity of the agricultural sector. The green revolutions have helped agriculture to move out of subsistence to commercial farming. As such the traditional system of agricultural taxation, which is generally through a low fixed flat

rate of land revenue, has become outmoded, inadequate and irrelevant. Hence a system of progressive taxation of agricultural income is required. Large public investment made in agricultural development since the five-year plans began, and therefore the earnings of the farmers with larger or even medium holdings have been going up. And voluntary saving and investment in the rural sector are very meager and therefore, these additional resources must be tapped up.

To remove the defects of the land revenue system such as it is not progressive in nature the committee on taxation of agricultural tax and income recommended agricultural holding tax. It is a tax on net farm business income, *i.e.* on the net value of agricultural land holding.

3.5 WTO AND INDIAN AGRICULTURE

The eighth round of multilateral trade negotiations held under GATT and lasting for seven years (1986-1993) named Uruguay Round, resulted in new legal agreements for trade and strengthening the settlement system. Following this, there was a Ministerial Conference in Marrakech, Morocco in April 1994 attended by 125 Government representatives from across the world to sign for the establishment of a new successor institution of GATT, namely the World Trade Organization (WTO). It is an embodiment of the Uruguay Round results. WTO entered into force on January 1, 1995, with all assets and liabilities of GATT transferred to the former. Geneva is its headquarters. WTO replaced the General Agreement on Tariffs and Trade (GATT), which remained in existence from 1948 to 1994. GATT was a multilateral treaty, governing trade in goods only. WTO is much wider in scope and coverage.

WTO is the only international body dealing with the rules of trade between nations. At its heart are WTO Agreements, the legal ground rules for international commerce and for trade policy. The

agreements have three main objectives: (a) to help trade flow as freely as possibly, (b) to achieve further liberalization gradually through negotiations and (c) to set up an impartial means of settling disputes.

- A. **Tariffication:** It means conversion of all non-tariff barriers on trade such as import quota into tariffs. Tariff bindings are to be reduced under this agreement. (A tariff binding is a commitment not exceed a particular level of tariff). Developed countries were to reduce their tariff bindings over a period of six years (1995-2000). Developing countries are to reduce their bindings over a period of ten years (1995-2004). Least developed countries are exempted from tariff reductions.
- B. **Market Access:** Where tariff bindings are too high, current market access has to be maintained as the amount export to other countries at preferential tariff rates. However, market access provisions do not apply when the commodity in question is a traditional staple in the diet of developing country.
- C. **Domestic Support:** WTO member countries are subject to following obligations on domestic support to their agriculture.

Aggregate Measure of Support (AMS): It is the annual level of support in monetary terms extended to agricultural sector. It is the non-exempted support of the following two types: (a) product-specific support, i.e. market price support/subsidy given to the producer of specific crop. (b) Non- product specific support, i.e. total subsidies on inputs like power, irrigation, fertilizers and credit. The AMS is calculated for each product receiving market support and is based on the price prevailing in the base period (1986-88). If AMS exceeds 5 per cent of the total value of agriculture in the case of developed countries (10 percent for developing countries), these are to be reduced by 20 percent over six years from 1995 (13.3 percent over 10 years for developing countries). The AMS to Indian agriculture is still below 10 percent in terms of WTO stipulations.

However, there are many issues under the AoA, which considered against the interests of developing countries like India.

Firstly, the minimum access for import of primary goods flouts the basic rule of promoting free trade under the WTO agreement. The Blue box and green box subsidies are exempted from reduction commitments, leading to distortion in trade. This has been emphasized by developing countries like India which have a majority of low cost agriculture producers.

Secondly, distortions emerge from inequity in domestic subsidy discipline due to different base positions. The developed countries are heavily subsidized countries and are allowed to retain up to 80 percent of their subsidies but developing countries can subsidize their farmers not more than 10 percent of the total value of agricultural production. Hence, the domestic support by developed countries needs to be reduced substantially in absolute terms.

Thirdly, the domestic support measures relaxed for the purpose of food security and PSD are allowed only in relation to the international market price and to the targeted population. However, this creates problem for countries like India with high percentage of poor population and heavy dependency on agriculture. Food security, which is interlinked, with the livelihood security is extremely important for densely populated countries with a large agrarian economy. These countries need enough flexibility under the AoA to take care of their food security, rural employment and livelihood concerns.

Fourthly, India has argued that for low-income countries, market access and domestic support discipline should be such that their food requirements are met from domestic sources. The volatile international market can get transmitted to the domestic economy and can affect the prices of food grains and food entitlement of the poor. Hence, it was suggested that for development of agriculture in developing countries,

diversification of green box subsidies should be encouraged and input subsidies allowed to crops where productivity levels are below the world average. Also, the negative product-specific support may be permitted so as to be adjusted against non-product-specific support.

Fifthly, developing countries face highest tariff rates, which include the major agricultural staple foods, cereals, meat, sugar, milk, butter, cheese as well as tobacco products and cotton. A study conducted by WTO with United Nations Conference on Trade and Development (UNCTAD) suggests that tariff wedge will continue to be significantly high on account of tariff escalation which is a major factor preventing developing countries from diversifying and increasing their share of processed agriculture exports.

The Indian proposals have, by and large, been received and endorsed by most of the developing countries as well as some of the developed countries. However, it is important that steps are taken to reap benefits of a liberalized trade regime through increased efficiency in agriculture and combat restrictions by developed countries arising from sanitary and phytosanitary measures. Efficiency would be greatly enhanced with increased investment and land reforms. Also, diversification of agricultural production into agro-foods, horticulture and floriculture products and farm products with international quality standards could help to increase exports from this sector.

Green Box Support : It is given on items, which have minimal impact on trade, i.e. pest and disaster, and buffer stock operations. It is an exempted support.

Blue Box Support : It is product-limiting subsidy and pertains mainly to the developed countries. It is exempted from reduction commitment under WTO. The developed countries subsidize their agriculture mainly under green and blue boxes.

Special and Differential Treatment Box Support: It includes investment subsidy to agricultural sector for farm development work like land leveling, shallow wells etc. it also includes agricultural input services to low-income and resource poor farmers. This support is mainly related to the developing countries and is exempted from reduction commitment under WTO.

Export Competition : WTO member countries are obliged to reduction commitments of their direct export subsidies. Developed countries are to reduce the volume of subsidies by 36 percent of the average base period 1986-88 within six years. Developing countries are to reduce the same by 14 percent and 24 percent and 24 percent respectively within ten years.

As regards Tariffication, there is a misconception that India is reducing import duties on agricultural product under WTO compulsions. As a matter of fact, the actual import duties on a variety of agricultural products are lower than the tariffs (bound rates) under WTO. This is clear from table 10.1. In the context of fears expressed in some quarters that liberalization of imports affecting Indian farmers adversely, the Economic Survey, 2001-02 observed, "India has considerable flexibility to counter to counter flooding of counter of the Indian market by cheap agriculture imports by imposing tariffs (bound rate) under WTO for agriculture products which provide a fair level of protection. The Government, in fact, raised the import tariff for many agriculture products such as tea, coffee, pulses and edible oils, in the last budget (2001-02). Countervailing duties can also be imposed to counter actionable subsidies given to agriculture products by the exporting countries apart from having the option of acting under safeguard provisions to counter surge of imports."

Import Trends

Changes in India's imports of selected agricultural commodities can be seen from the data presented in Table below.

The table shows that India no more depends upon rice imports, and imports, and import of cereal preparation has reduced to very low level. Despite very high growth in production and claim of self-sufficiency in food grains, India

Occasionally imports large quantity of wheat. Besides production fluctuation, unplanned exports are found to result in import of wheat in the succeeding year.

India's import of selected agricultural commodities before and after WTO

Commodity	1991/ 92	1992/ 93	1993/ 94	1994/ 95	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 00	2000/ 01
Rice	4	25	18	3	N.A.	N.A.	N.A.	1	6	4
Wheat	N.A.	245	40	N.A.	3	114	266	277	179	0.6
Cereal prep.	66	63	35	26	21	22	25	9	70	11
Pulses	121	117	186	199	212	265	322	168	82	108
Sugar	N.A.	N.A.	N.A.	727	65	1	127	264	256	7
Fruits and nuts	41	65	69	100	99	129	155	159	136	176
Milk/Cream	3	15	5	2	11	1	1	3	25	2
Cashew nuts	108	130	154	220	227	194	207	230	276	211
Cotton raw	N.A.	44	6	161	156	9	22	90	289	259
Vegetable oil	101	58	53	199	676	825	745	1803	1844	1301
Sub-total	444	762	566	1637	1470	1560	1870	3003	3118	2079
Crude fertilizer	185	159	124	153	157	132	178	198	204	219
Mfd. Fertilizer	645	699	63	767	1381	686	845	811	1080	440
Fertilizer total	830	857	756	916	1538	816	1023	1009	1284	659
TOTAL	1256	1618	1317	2544	3001	2303	2893	4012	4402	2738

Export Trends

During early 1990s marine products topped the list of agricultural export followed closely by export of oil meal (Table 2.2). Other important items of export were tea, cashew nut, basmati rice, spices and tobacco with value ranging between \$ 122 to \$337 million. liberalization of export of non-basmati rice in mid-1990s provided impetus to its export. As a result, rice export figured at the top during 1995-96 and during 1998-99. Out of the grades of rice, basmati rice

showed a steady upward trend in its export but non-basmati rice showed violent year to year fluctuations.

The worst affected exports are of oil meal. After witnessing 90 per cent growth between 1992-93 and 1996-97, oil meal exports dwindled to less than 40 per cent of the level attained in 1996-97 by 1999-2000. Export of cotton have declined from \$444 million in 1996-97 to a meager \$19 million in 1999-2000. Almost similar has been the case with the exports of sugar. Decline in export has also been witnessed in the case of groundnut, tobacco and meat till 1999-2000. All these items however, have shown some improvement during the year 2000-01

India's export of selected agricultural commodities before and after WTO

Item	1992/ 93	1993 / 94	1994/ 95	1995/ 96	1996/ 97	1997/ 98	1998 / 99	1999/ 2000	2000/ 01
Agricultural and allied products	3028	4023	4227	6120	6868	6634	6033	5504	6013
Basmati rice	276	338	276	255	352	454	446	411	470
Non basmati rice	60	72	108	113	543	454	1046	316	172
Wheat	3.5	0.07	13.5	110	197	0.11	0.32	-	97
Cotton raw	63	208	45	61	444	221	49	19	49
Pulses	18	23	29	39	37	97	53	94	118
Oil meal	534	740	573	703	985	925	461	370	448
Sugar and molasses	122	57	20	152	304	69	6	9	110
Marine products	602	813	1127	1012	1129	1207	1038	1180	1390
Spices	136	182	195	238	339	380	388	393	356
Tea	337	337	311	351	292	505	538	408	433
Coffee	130	174	335	450	402	457	411	315	260
Poultry & dairy products	-	-	16	18	35	32	23	28	47
Floriculture Product	5	6	10	18	18	23	25	21	29
Fresh fruits	-	-	60	69	69	75	63	66	84
Fresh vegetables	108	132	79	89	94	84	65	82	100

India has been quite consistent in export of marine products with export remaining around 1.1 billion. Export of traditional items like tea, cashew and spices maintained their status in post WTO trade liberalization but coffee export has been hit badly. Castor oil and guar gum meal are emerging as important items of export.

Some researchers have noted that horticulture products holds better prospects for export as compared to other agricultural products and they have thus underlined the importance of horticulture exports. Experience of last 8 years show that export of horticulture products has not been adversely affected by post WTO trade scenario. Though the data are thin, there are indications that processed food holds growing prospects for exports.

CHECK YOUR PROGRESS

Q No. 1: what has been the export performance of Indian agriculture .

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3.6 LET US SUM UP

Finance is the basis need and sin-quo-non for any economic activity concerned with agriculture. The fact was realize by the government since last century as there was a great discontentment

among the small and marginal farmers due to rising trend of indebtedness. Thus, it was felt that something must direct the flow of economic activity and facilitate its smooth operation. In this unit you have learnt the role played by institutions like RRBs, NABARD etc in financing rural credit. You have also learnt the changing agricultural scenario under the WTO regime.

Key words

SHG – Self help groups are self supporting and self querying organization

Suggested Reading

1. *Trade Liberalisation* –WTO and Indian Agriculture, Romesh Chand, Mittal Publication.
2. *Indian Economics* – H. S Agarwal, Lakshmi Narayan Agarwal.

BLOCK : 3

INDUSTRIAL DEVELOPMENT

Unit 1 Deals with Industrial Development and Related Issues and Stops at Discussing the Industrial Policy of India..

Unit 2 Discusses about the Capital Formation. Here we discuss first the capital formation in India and domestic selling. We also deal with the causes of low rate of capital formation in India.

UNIT-1 : INDUSTRIAL DEVELOPMENT AND RELATED ISSUES

Structure

- 1.0 Objectives
- 1.1 Introduction
- 1.2 The performance and pattern of industrialization under five year plans
- 1.3 Problems of industrial development
- 1.4 Small scale and cottage industry
 - 1.4.1 Meaning and definition of small scale and cottage industry
 - 1.4.2 Role and performance of small scale and cottage industries
 - 1.4.3 Problems of small scale and cottage industry
- 1.5 Industrial sickness
 - 1.5.1 Extent of industrial sickness
 - 1.5.2 Causes and remedies of industrial sickness
- 1.6 Industrial policy of India
- 1.7 Let Us Sum Up

1.0 OBJECTIVES

This unit is concerned with the industrial development and related issues. On reading this unit, you should be able to :

- **Discuss** the issues relating to industrial development and the meaning and definition of small scale and cottage industry, industrial sickness, industrial policy of India.
- **Locate** the differences between small scale and cottage industries.
- **Explain** the problems of industrial development, problems of small scale and cottage industries, industrial sickness – causes and remedies and prospects of small scale and cottage industries.

1.1 INTRODUCTION

Before the advent of the Britishers India was an industrially advanced country. The Britishers systematically destroyed the industrial base of India. Due to which the industrial base became weak, characterised by under developed infrastructural facilities and a stagnant economy at the time of independence. The Government called an industries conference in December 1947 to consider ways and means to utilise the existing capacity more fully and to harness industry to the growing requirement of the people. With the purpose of assisting industrial development the government granted certain tax concession also. The industrial policy resolution was passed in 1948. These factors had a favourable impact on industrial development. Sustained high growth rates in the recent period with the high performance of new technology and export industries have made the country has become particularly attractive as a market and as an investment destination.

1.2 THE PERFORMANCE AND PATTERN OF INDUSTRIALIZATION UNDER FIVE YEAR PLANS

The process of industrialization in India, launched as a conscious and deliberate policy for economic development, has been a saga of the Five Year Plans.

- ✧ **First Five Year Plan (1950 – 51 to 1954 – 55)** – gave the pride of place to agriculture but also show the start of work on the planning of major infrastructural inputs and the establishment of many basic industries like fertilizers, steel, drugs and pharmaceuticals, etc. The first plan did not envisage any large scale programmes of industrialization. The first plan outlay was Rs. 2536 crores in the public sector and Rs. 1800 crores in the private sector. As against Rs. 2536 crores of investment the outlay, actual expenditure was Rs. 1960 crores. The plan was a success, especially in agricultural development, irrigation and social service.
- ✧ **Second Five Year Plan (1955 – 56 to 1960 – 61)** – the second plan gave the highest priority to industry especially basic and heavy industries and phenomenal expansion of the public sector in industries and minerals. Agriculture accorded lower priority. The plan outlay was Rs. 4600 crores, in public sector and Rs. 3100 crores in private sector. National income increased by 19.5% as against 25% targeted (1961). The per capital income 1961 increased only 8% (due to 13% increased in population) short falls were noticed in agriculture, in production of power, industrial machinery, fertilizer chemicals, pulp, aluminium, cement. The most impressive achievement of the plan was the setting up of three public sector steel plants of one million tones namely (i) Bhilai, (ii) Rourkela (iii) Durgapur.
- ✧ **Third Five Year Plan (1961 – 62 to 1965 – 66)** – Agriculture showed up as a major constraint in India's economic

development; hence in this plan an attempt is made to shift the balance in favour of agriculture. Outlays in public sector was Rs. 7500 and in private sector Rs. 2900, thus total Rs. 10400 crores. 36% was allotted to agriculture, irrigation and power as against 30% in second plan, 20% for transport and communication as against 23% in second plan.

- ✱ **Fourth Five Year Plan (1969 – 70 to 1973 – 74)** – This plan aimed at growth with stability, and progressive achievement of self reliance. Total outlay was Rs. 24882 crores, public sector Rs. 15902 crores and private Rs. 8980 crores. National income growth was targeted at 5.5% per annum. Per capital income growth was very unsatisfactory. Agricultural production could not reach 5% in 1973 – 74 as targeted (largely due to unutilized capacity, fall in demand, shortage of raw materials, spares and components, power shortage, transport bottlenecks, disturbed industrial relations). Price during 1972 – 74 rose by as much as 50% due to refugees from Bangladesh, and the hike in price of crude oil.
- ✱ **Fifth Five Year Plan (1974 – 75 to 1978 – 79)** – Approach/draft plan remained non-starter for a couple of years. Among the contributory factors was galloping escalation in price of crude in 1973 resulting in a stiff rise in the import bill. First two years adhoc measures – package of anti-inflationary measure and a drive against economic offenders. The production of food grains reached all time record of over 118 million tones. Striking improvement was observed in the operation of power plants, production of coal, steel and fertilizer.

Out lays in public sector increased from Rs. 37250 to 39300 crores, mainly to implement the public sector programme in the core sector. Substantial increase was observed in out lays on irrigation and power, mineral and industry. Outlay in Private sector increased from Rs. 1600 crores to 7700 crores.

- ✱ **Sixth Five Year Plan (1980 – 81 to 1984 – 85)** – Sixth Plan emphasized on optimum utilization of existing capacities and improvement of productivity, enhancement of manufacturing capacity, especial attention to capital good industry and electronics industry, improvement of energy efficiency etc. Of the total expenditure of Rs. 1,09,292 crores under the Sixth Plan, the share of industrial sector was Rs. 15,002 crores which come to 13.7%. The period of Sixth Plan saw wide range changes in a industrial policy of the government. The industrial and trade policy were substantially liberalised. As such industrial production increased but it also created certain distortion in the economy as the import intensive sector of consumer durables and the group of chemicals, petro-chemicals and allied industries marched much ahead of other sectors and groups of industries.
- ✱ **Seventh Five Year Plan (1985 – 86 to 1989 – 90)** – The overall outlay for industrial and mineral development programmes in the public sector was Rs. 19663 crores. As against these, the actual expenditure was Rs. 25971 crores which is 11.9% of the total expenditure of Rs. 2,18,730 crores in the Seventh Plan. Industrial production is targeted to grow at the rate of 8.7% per annum. The actual average rate of growth worked out at 8.5% per annum.
- ✱ **Eight Five Year Plan** - In this plan overall outlay for industrial and mineral programme in the public sector was kept at Rs. 40,588 crores. This was only 9.3% of the total outlay of Rs. 4,34,100 crores in the plan. This reduced allocation to industry and minerals in the Eight Plan is in line with the liberalization measures, announced in the new industrial policy of 1991, according to which the private sector is now destined to play an increasingly important role in industrial activities, especially in those fields where security and strategic or social considerations are not important. The public sector is expected to concentrate increasingly on basic and core sectors. The actual expenditure on industrial sector was Rs. 40,623 crores

out of the total plan expenditure of Rs. 4,85,457 crores. This comes to just 8.4% of total expenditure under the Eight Plan.

Ninth Five Year Plan – The Ninth Plan outlay for industry and minerals was kept at Rs. 65,148 crores, which was 7.6% of the total plan outlay of Rs. 8,59,200 crores. The actual expenditure on industry and minerals in the Ninth Plan is expected to be only Rs. 44,695 crores which is just 4.7% of total actual expenditure of Rs. 9,41,041 crores in the plan. The Ninth Plan envisaged a growth rate of 8.2% per annum. Various policies were advocated to achieve this growth rate. The actual growth rate in the Ninth Plan was only 5% per annum – much less than the targeted growth rate of 8.2% per annum.

Tenth Five Year Plan – The Tenth Five Year Plan proposes an outlay of Rs. 58,936 crores for industry and minerals which is just 3.9% of the total outlay of Rs. 15,25,639 crores. The reduced allocation to industry is in line with the government strategy to liberalise and privatize and give more space to the private sector to expand its activities. The plan sets a target of 10% per annum growth for the industrial sector. The onus of realising this target lies on the private sector as the role of the public sector is slated to decline considerably.

1.3 PROBLEMS OF INDUSTRIAL DEVELOPMENT

1. Gaps between targets and achievements

In the entire earlier period of planning the targets of overall growth in industrial sector were below the targets except in 1980's. The average short fall in industrial achievement has been about 20 per cent in its plan period.

2. Under utilization of capacity

A large numbers of industries suffer from substantial under utilization of capacity. There are many differences in estimate

of under utilization of capacity because of difficulty in defining “capacity”. The estimate vary from 20 - 30 per cent to 60 – 70 per cent. It is assumed that the average level of utilization in India fluctuates around 50 – 60 per cent because of various reason’s such as frequent power failures, labour disputes, government policies and demand factor etc.

3. Performance of Public Sector

The performance of public sector units cannot be judged by the yardstick of profits since there justification lies in fulfill certain broader socio-economic objectives. But accumulation of large losses in the public sector units is a matter of concern and calls for immediate corrective action. The un-remunerative pricing policies of these enterprises have amounted to indirect subsidization of the private sector, due to which private profits have increased at the cost of the public exchequer.

4. Growth of Regional Imbalances

Industrial development have remained concentrated in a few states such as Maharashtra, Gujrat and Tamil Nadu which accounted for 40.8 per cent of the total factories, 44.2 per cent invested capital and 44.9 per cent of the gross output of the industrial sector in India in 2000 – 01. Though substantial investment in public sector was made in the relatively backward states of Bihar, Orrisa and Madhya Pradesh but schemes for development were no more successful. Effective steps to reverse this process are called for urgently.

5. Industrial Sickness

Due to improper and inefficient management a large number of industries are plagued by “Sickness”. Adequate attention has also not been given to improvements in technology and quality of products. Some of these factors have led to the immergents of sickness in certain industries particularly when market conditions tend to generate a measure of competition within the economy. In the end of March 2002 there were 1.81 lakh sick

industrial units involving an outstanding bank credit of Rs. 26,065 crore.

1.4 SMALL SCALE AND COTTAGE INDUSTRY

In the economic development of India, a strategic position has been given to the development of small scale and cottage industries, which constitute an important segment of the overall economy. Next to agriculture, this sector provides the greatest employment opportunities, a considerable portion of which is in rural and semi-rural areas. India has large, medium and small industrial units of production in almost all branches of the industry. The small industry sector is considered to have a major role in the Indian economy due to its 40 percent share in the national industrial output along with an 80 percent share in industrial employment and nearly 35 percent share in exports.

1.4.1 Meaning and definition of small scale and cottage industry

There are no clear official definitions of small scale industries. Small scale industries are usually distinguished from the large-scale and medium-scale industries on the basis of size, capital resources and labor force in the units. However, capital investment on plant and machinery by units is considered as a main criteria for distinguishing between the large and small industries. An industrial unit can be classified as a small-scale unit only if it meets the capital investment limits set by the government of India (GoI). These limits have been steadily increased over the years.

In India, the latest definition of a small-scale industry (SSI) is any unit with an upper limit on investment (in plant and machinery) of from Rs. 0.20 million to Rs. 0.35 million in the case

of SSI and Rs. 0.45 million in the case of ancillary units. What is called the village and small industries (VSI) sector comprises both traditional and modern small industries; it is constituted by eight specific groups viz. Handloom, Handicrafts, Coir, Sericulture, Khadi, Village Industries, Small-Scale Industries and Powerlooms. The last two items constitute the modern group of industries, the others being traditional.

The Small Scale industries(SSIs) are mainly located in urban areas.They produce goods with partially or wholly mechanised equipment employing outside labour and manufacture many items which include rubber products, plastic products, chemical products, glass and ceramics, mechanical engineering items, hardware, electrical items, transport equipment, electronic components and equipments, automobile parts, bicycle parts, instruments, sports goods, stationery items and clocks and watches etc.

Cottage industries are of a traditional nature,catering mainly to the local populations and depend upon local raw materials.They are located in rural areas,usually at the homes of the producers.They involve operations mostly by hand or using simple tools which are carried on primarily with the help of members of the family which include hand woven textiles,leather products,pottery,carpet making etc.They require little capital investment.They help in preservation and promotion of traditional culture and national heritage.

1.4.2 Role and performance of cottage and small-scale industries in India

- **Expansion of small scale sector and its share in industrial output**

Performance of the small scale sector over the period 1994-95 to 2002-03 would be clear from the following table –

Table – 1
Overall performance of small scale industry, 1994-95 to 2002-03

Year	No of units(in million) as on 31 st dec.	Output(Rs. Crore)		Employment (in million)	Exports(At current Prices) Rs. in crore
		At current Prices	At Constant prices (1993-94)		
1994-95	2.57(7.7)	2,98,886(23.7)	2,66,054(10.1)	14.66(5.2)	29,068(14.9)
1995-96	2.66(3.9)	3,62,656(21.3)	2,96,385(11.4)	15.26(4.1)	36,470(25.5)
1996-97	2.80(5.5)	4,11,858(13.6)	3,29,935(11.3)	16.00(4.8)	39,248(7.6)
1997-98	2.94(5.0)	4,62,641(12.3)	3,57,749(8.4)	16.72(4.5)	44,442(13.2)
1998-99	3.08(4.6)	5,20,650(12.5)	3,85,296(7.7)	17.16(2.6)	48,979(10.2)
1999-2000	3.21(4.3)	5,72,887(10.0)	4,16,736(8.2)	17.85(4.0)	54,200(10.7)
2000-2001	3.31(3.1)	6,39,024(11.5)	4,51,033(8.2)	18.56(4.0)	69,797(28.8)
2001-2002	3.44(3.9)	6,90,316(8.0)	4,78,456(6.1)	19.22(3.6)	71,244(2.1)
2002-2003	3.57(3.8)	7,60,844(10.2)	5,13,910(7.4)	20.00(3.9)	N.A.

Note : Figures in bracket give the increase over previous year.

Source : 1. Government of India, Economic Survey 2002-03 (Delhi, 2003), Table 7.25, page – 152 and 2. Government of India, India 2004 – A Reference Annual (Delhi, 2004) page – 475.

In 1994 – 95 the number of small scale units was 2.57 million which increased 3.57 million in 2002-03. As far as output of small scale units is concern, it was Rs. 2,98,886 crore in 1994-95 and this increased considerably to Rs. 7,60,844 crore in 2002-03 (at current prices). At constant (1993-94) prices, the output of small scale sector increased from Rs. 2,66,054 crore in 1994-95 to Rs. 5,13,910 crore in 2002-03. The rate of growth of output exceeded 10 per cent in three consecutive years, 1994-95, 1995-96 and 1996-97 (at constant prices).

- **Employment Generation**

14.66 million people were employed in 1994-95 in the small scale units which increased to 20.0 million in 2002-03. Within the manufacturing sector itself, small and decentralized sector contributes about four – fifths of manufacturing employment in India. Which clear from the fact that while employment in the factory sector as a whole (large, medium and small scale) increased by only 2.21 per cent per annum over the period 1972 to 1987-88, employment in small scale sector grew at the rate of 5.45 per cent per annum.

- **Equitable Distribution of National Income**

These industries ensure a more equitable distribution of national income and wealth because (1) the ownership of small scale industries is more widespread than the ownership of large scale industries, (2) they possess a much larger employment potential as compared to the large industries.

These industries have a high employment potential and consequently they enable a vast majority of people to share the fruits of economic development.

- **Less Industrial Disputes**

Supporter of small scale industries are of the opinion that large scale industries are ridden with more industrial disputes than the small scale industries due to which they face the problems of strikes and lockouts. But the small scale industries are free from such hazards and there is consequently less loss of output. However this view point is not totally correct because in capitalistic form of production whether the unit is small or large, the mill owner does exploit the workers, which leads to tensions and conflict. The labourers working in large scale industries are organised and resort to collective action, where as workers in small scale industries are not organised and have no way of expressing their resentment. As such the relations between the employers and employees seem to harmonious while actually they are not.

- **Contribution to Exports**

The contribution of small scale sector in export earnings has increased a lot. Around 93 per cent of the exports consists of non-traditional items like readymade garments, woolen garments and knitwear, sports goods, finished leather, leather products, processed foods, chemical and allied products and a large number of engineering goods. The total exports of the small scale industry products increased from Rs. 155 crore during 1971-72 to Rs. 71,244 crore in 2001-02, which meant an increased in the share of the small scale industries in the total exports of the country from 9.6 per cent in 1971-72 to 34.1 per cent in 2001-02. The share of the small scale sector in a manufacturing exports is about 45.0 per cent.

1.4.3 Problem of small scale and cottage industry

The small scale and cottage industries face many difficulties and problems. As such many small scale units turn sick and a large number have closed down. Some of the main problems are summarised below :

1. Shortage of Fianance

The financial disabilities of small artisans is beyond doubt owner of small industries do not have sufficient fixed and working capital but they have dire need of finance for the setting of new units, expansion and modernisation of thier industries. Because of poor retain capacities, banks and other financial institutions are reluctant to provide credit to them. Therefore they fall in the clutches of money lenders and middle man who charged exorbitant rate of interest.

2. Problems of Marketing

Another serioud problem face by these industries is in the field of marketing. Due to absence of proper marketing arrangements

these industries some times go for distress sale of their produce to the private dealers at low prices.

3. Outdated Machines and Other Equipments

In most of the cases cottage and small scale industries use outdated machines and equipments. Therefore the commodity produced by these industries is of inferior quality. Infact modern methods of technique have not yet become intragal part of cottage and small scale industries in India. Commercial banks always hesitate to extent credit facilities. This results high prices and low demand of the products.

4. Poor Transport Facilities

It has been observed that small scale and cottage industries faces the problem of poor availability of transport facilities specially in rural areas. The cost of transport also hike in prices of the product.

5. Inverted Terrif Structure and Raw material availability

Many of these industries use imported raw materials and intermediate goods. The spike import liberalisation during 1990's the tarrifs on materials like steel, coper and non-ferrous metals, plastics, many chemicals, paper etc. remain hihg in comparision to tarrifs on manufactured goods (other than consumer goods). This has created the problem of significant "inversion" in tarrif structure, which specially hurts small firms since they are more labour intensive and have high material – to – output ratios.

The small scale industries suffers from acute shortage of raw materials.

1.5 INDUSTRIAL SICKNESS

The definition of a '**sick industrial company**' (which got amended in the year 1993) has been defined under the provisions of Section 3(1)(0) of Sick Industrial Companies (Special provisions) Act, (SICA) which means an industrial company (being a company registered for not less than five years) and having at the end of any financial year accumulated losses equal to or exceeding its entire networth.

Accordingly, sick industrial company means a company having fulfilled all the following conditions :-

- i. It must be an industrial company which is as specified in the First Schedule to the Industries (Development and Regulation) Act, 1951 (IDRA) but does not include an ancillary industrial undertaking or a small scale industrial undertaking as defined under IDRA.
- ii. The company should be in an existence for atleast 5 years since the date of incorporation.
- iii. The company should have an accumulated losses equal to or exceeding its networth at the end of any financial year.

('Net Worth' means the sum total of paid-up capital and free reserves)

'Potentially Sick Industrial Company' means an industrial company whose accumulated losses is more than fifty percent or more of its peak net worth during the immediately preceding four financial years.

1.5.1 Extent of industrial sickness

The industrial sickness contained to remain a major area of concern. As shown in Table -1 the total number of sick units in December 1980 was 24550 with outstanding bank credit of Rs. 1,809

crore. By March 1990, the total number of sick units had risen to 2,21,097 with outstanding bank credit of Rs. 9,353 crore of these, sick units as many as 2,18,828 units belonged to the small scale sector with outstanding bank credit of Rs. 2,427 crore. The number of large and medium sick units was only 2,269 but outstanding bank credit in their case was as high as Rs. 6,926 crore. The number of sick units as at end – March 2000 stood at 3,07,399 which fell considerably 1,80,597 at end March 2002. However the amount outstanding rose from Rs. 23,656 crore to Rs. 26,065 crore over the period. Though the small scale sector accounted for 98.0 percent of sick units as at end March 2002, its share in total bank credit was only 18.5 per cent. In addition to the sharp increase in the number of sick industrial units, another serious problem is that a large number of them are non-viable. For instance, of the 2,52,947 sick units as at end – March 2001, the commercial banks found only 13,489 to be viable while as many as 2,27,342 (i.e. 90.0 per cent) were found to be non-viable (viability of the balance 12,116 units was not decided)

Magnitude of Industrial Sickness

End of	Sick/Weak Units		
	Large and medium	Small	Total
Number of units			
December 1980	1,401	23,149	24,550
March 1990	2,269	2,18,828	2,21,097
March 1998	2,476	2,21,536	2,24,012
March 2000	3,164	3,04,235	3,07,399
March 2001	3,317	2,49,630	2,52,947
March 2002	3,261	1,77,336	1,80,597
Outstanding bank credit (Rs. Crore)			
December 1980	1,502	306	1,809
March 1990	6,926	2,427	9,353
March 1998	11,825	3,857	15,682
March 2000	19,047	4,608	23,656
March 2001	21,270	4,506	25,775
March 2002	21,246	4,819	26,065

Source : Tata Services Ltd. Statistical Outline of India, 2003-04 (Mumbai, 2004), Table 65, p.64.

1.5.2 Cause and Remedies of Industrial Sickness

The reasons for industrial sickness may differ from industry to industry and within the industry from unit to unit. these can be categorised as follows.

(1) Internal Causes

- (i) **Mismanagement** - Faulty management is an important internal cause of industrial sickness. Faulty management decisions in the fields of production, marketing, finance etc. can ruin a business. Lack of industry and material management, inadequate attention towards maintenance management are some of the examples of mismanagement in case of production. Inefficient use of working capital can also cause financial mismanagement. Faults in personnel management include improper wage lack of manpower planning and bad industrial relations.
- (ii) **Labour Problems** – In some cases acute labour problems have resulted in strikes, lackouts and even clousure of industrial units. These problems may arise due to various reasons. If these problems are not solved, it adds to the industrial sickness.
- (iii) **Defective plant and machinery** – If the plant and machinery selected by the entrepreneurs turns out to be defective, their units are bound to suffer losses and will, in all probability, turn sick.
- (iv) **Entrepreneurial incompetence** – Many persons setting up small scale units are incompetent entrepreneurs in the sense that they do not posses basic technological knowledge for the product. In some cases they do not have any knowledge of their business accounts.
- (v) **Defective selection of location** - Industrial sickness may be due to improper selection of site for location.

(2) External Reasons

- (i) **Shortage of power supply** – Most of the industrial units usually face the problem of power cuts from time to time. Such power cuts are imposed by the state Governments as the generation of power is considerably below its actual requirements.
- (ii) **Non availability of raw materials** – Non-availability of raw materials acts as an abstacle which severely hamper the growth of industrial production, causing losses to the unit.
- (iii) **Shortage of capital** – Shortage of capital also hamper the growth of industrial production. Unfavourable investment and climate of financial institutions lead to critical capital shortages. Many sick units have been affected by the shortage of capital.
- (iv) **Government Policy** – Government policies regarding prices, distribution, import, export industrial licensing and taxation etc. are select to a periodic changes. Adverse Price control policy and delay in getting any financial assistance prove harmful for the smooth functioning of industrial unit.
- (v) **Problem of Infra-structure** – Non-availability of energy, power, fuel oil etc. also aggravate the problem of industrial sickness.

Remedies

Adequate measures should be taken to increase production and productivity so that there would not only be an expansion of employment opportunities but the real wages would also grow in a sustained manner along with industrial growth.

The unions and the management should share their experience regarding workers' participation in management, investment in HRD, adoption of new management practices as a means of avoidance of wastage and leakage of resources and optimal harnessing of scarce resources. The need of the hour is to evolve new methods of restructuring without tears, efforts to take workers into confidence about the restructuring plans and their results, features of innovative incentive schemes which have helped

the worker to identify himself/herself with the establishment and share its goals and visions. These efforts will surely lead to increase production and productivity, which is the final solution to industrial sickness.

1.6 INDUSTRIAL POLICY OF INDIA

Industrial Policy Resolution, 1948

The first industrial policy was made in the Industrial Policy Resolution, 1948 issued by the government of India on 6/4/48. It divided the industries into the following four categories:

1. Industries where State had a Monopoly: This includes arms and ammunition, atomic energy and rail transport.
2. Mixed Sector: This includes coal, iron and steel, aircraft manufacture, shipping, telephone manufacturing, telegraph and wireless and mineral oils.
3. The field of government control: 18 major industries were included in this sector. For example automobiles, chemicals, fertilizers, sugar, paper, cement, cotton etc.
4. The field of private enterprise: All other industries except the abovementioned sectors were left open to private sectors.

Industrial Policy Resolution, 1956

The objectives of this Industrial Policy are:

1. To accelerate the rate of the growth and speed up industrialization.
2. To concentrate on the heavy industries and machine making industries.
3. To expand Public Sector.
4. To reduce the disparities in income and wealth.

5. To build up large and growing Co-operative sector.
6. To prevent monopolies and the concentration of wealth and income in the hands of a small number of individuals.

According to this resolution the industries can be categorized into three categories:

1. **Monopoly of the state:** In this category 17 industries were included for the future development.
2. **Mixed Sector of Public and Private Sector:** In this sector 12 industries were included. For Example transportation, chemicals, fertilizers, etc.
3. **Industries left for private sector:** All industries not listed in 1. and 2. were included in this sector.

This policy emphasized the mutual dependence of public and private sectors. The only 4 industries which were not included in private sector are arms and ammunition, atomic energy and rail transport and air transport. In all other industries either private sector was allowed to operate freely. As compared to the previous policy 1956 Industrial policy enlarged the area of operation of the public sector. However, the 1956 Resolution dropped the threat of nationalization that the previous policy contained and the division of industries in different categories was more flexible in the former as compared to latter. The fact is that the basic objective of both the Resolution was the same—strengthening the mixed economy structure of the country.

NEW INDUSTRIAL POLICY, 1991

The main objectives of the new policy are “to build on the gains already made, correct the distortions that might have crept in, maintain a sustained growth in productivity and gainful employment, and attain international competitiveness.” The prime objective was initiated on the following areas:

- 1. Industrial Licensing.**
- 2. Foreign Investment.**
- 3. Foreign technology Agreements.**
- 4. Public Sector Policy.**
- 5. MRTP Act.**

Another package for the Small and Tiny Sectors of industry was announced separately in August 1991.

In order to liberalize the economy and to enable the entrepreneurs to make investment decisions on the basis of their own commercial judgment, the 1991 industrial policy abolished industrial licensing for all but 18 industries. In case of delicensed industry, no approval is required from the government. However entrepreneurs are required to submit Industrial Entrepreneurs Memorandum to the Secretariat for Industrial Approvals which acknowledges receipt. According to 1956 Industrial Policy 17 industries were reserved for public sector. But the 1991 policy reduced the same to 8 and they are:

- 1. Atomic Energy.**
- 2. Coal and Lignite**
- 3. Mineral oil**
- 4. Mining of iron ore, manganese ore, chrome ore, gypsum, sulphur, gold and diamond.**
- 5. Mining of copper, lead, zinc, tin, molybdenum and wolfram**
- 6. Arms and ammunition**
- 7. Minerals specified in the schedule to atomic energy 1953**
- 8. Rail Transport.**

The govt. has also decided to offer a part of govt. shareholding in the public sector enterprises to mutual funds, financial institutions, general public and workers.

1.7 LET US SUM UP

In this unit we discuss industrial development and related issues. The performance and pattern of industrialization under five year plans, problems of industrial development, small scale and cottage industries, industrial sickness and industrial policy of India.

Key words

Small Scale and Cottage Industry : A small-scale industry (SSI) is any unit with an upper limit on investment (in plant and machinery) of from Rs. 0.20 million to Rs. 0.35 million in the case of SSI and Rs. 0.45 million in the case of ancillary units.

Industrial Sickness : The definition of a '**sick industrial company**' (which got amended in the year 1993) has been defined under the provisions of Section 3(1)(0) of Sick Industrial Companies (Special provisions) Act, (SICA) which means an industrial company (being a company registered for not less than five years) and having at the end of any financial year accumulated losses equal to or exceeding its entire networth.

Check your progress

1. Explain the problems of Industrial Development.

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3. Explain the magnitude and causes of Industrial Sickness in India. Discuss how the Industrial Sickness has impeded the industrial development in India.

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Further Readings

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UNIT-2 : CAPITAL FORMATION

Structure

- 2.0 Objectives
- 2.1 Introduction
- 2.2 Saving
- 2.3 Capital Formation in India
- 2.4 Causes of Low Rate of Capital Formation
- 2.5 Remedies
- 2.6 Let Us Sum Up

2.0 OBJECTIVES

The objective of this unit is to introduce the learner with the concept of saving and capital formation. After going through the unit you will be able to –

1. Learn the importance of capital formation in Indian economy.
2. Locate the problems of low rate of capital formation.
3. Suggest steps to raise the rate of capital formation.

2.1 INTRODUCTION

Capital plays an important role in the economic development of a country. In simple words, it refers to that part of wealth of the economy, which is utilized for further production of wealth. For example a huge amount of capital is invested for various sectors such as irrigation, agriculture, infrastructure etc. So it is clear that capital is the only source of development in an underdeveloped economy.

Colin Clark says, “Capital goods are reproducible, wealth used for purposes of production.”

Capital Formation or accumulations can be regarded as a key factor in the economic development of a country. It is nothing but the capital formation, which accelerates the speed of

development with utilization and exploration of available resources. So as a result it changes the shape of the economy i.e. employment, national income and output. As a result it can be used as a weapon against inflation and Balance of Payment.

2.2 SAVING

Saving is nothing but the excess of current income over the current expenditure. The balancing item on the income and outlay accounts of producing enterprises, and households, govt. administration and other final consumers. In order to estimate the domestic saving, the economy is divided into three broad institutional sectors:

1. **Household.**
2. **Private Corporate.**
3. **Public.**

Saving of the **household sector** can be subdivided into two sectors:

1. **Total of financial saving:** This includes net deposits, possession of currency, investment in shares and debentures, net claims on government in the form of Central and State government securities and small savings, net increase in the claims in life insurance and Provident Funds.
2. **Saving in the form of the physical assets:** It includes construction, machinery, equipment and stocks held by individuals, firms and other institutions constituting the household sector.

Private Corporate: It includes non-government non-financial institutions, private financial institutions and co-operative institutions. The basic data for includes non-government non-financial institutions are obtained from the analysis of Profit and Loss account and Balance Sheets of these institutions.

Public: It comprises of government administrative departments and enterprises, departmental and non- departmental. The savings of government is defined as **Excess of Income over**

Expenditure. The net savings of such institutions are estimated from the results of analysis of their **Annual Accounts**.

2.3 CAPITAL FORMATION IN INDIA

The term capital formation refers to investment. Its size in any country depends on domestic saving and capital inflow. The rate of capital formation in India is now estimated as a percentage of gross domestic products. The estimates of

GROSS DOMESTIC CAPITAL FORMATION (INVESTMENT) (As percent of GDP at current market prices)

GROSS DOMESTIC CAPITAL FORMATION					
YEAR	PUBLIC SECTOR	PRIVATE SECTOR	TOTAL	ERRORS & OMISSIONS	ADJUSTED TOTAL
1	2	3	4	5	6
1950-51	2.8	7.7	10.5	-1.8	8.7
1955-56	4.8	7.7	12.5	0.4	13.0
1960-61	6.9	7.8	14.7	-0.3	14.4
1965-66	8.2	8.1	16.3	-0.2	16.2
1968-69	5.8	8.6	14.4	-1.2	13.2
1973-74	7.5	9.2	16.7	0.7	17.4
1978-79	9.2	11.5	20.7	0.9	21.6
1979-80	10.0	11.3	21.4	-0.8	20.6
1980-81	8.4	10.3	18.7	1.6	20.3
1984-85	10.4	11.2	21.6	-1.5	20.1
1985-86	10.8	12.9	23.7	-1.9	21.7
1986-87	11.2	12.0	23.2	-2.2	21.0
1987-88	9.5	12.6	22.1	0.4	22.5
1988-89	9.5	14.2	23.7	0.1	23.8
1989-90	9.5	14.1	23.7	0.9	24.5
1990-91	9.3	14.7	24.1	2.2	26.3
1991-92	8.8	13.1	21.9	0.6	22.6
1992-93	8.6	15.2	23.8	-0.2	23.6
1993-94	8.2	13.0	21.3	1.8	23.1
1994-95	8.7	14.7	23.4	2.6	26.0
1995-96	7.7	18.9	26.5	0.4	26.9
1996-97	7.0	14.7	21.8	2.7	24.5
1997-98	6.6	16.0	22.6	2.0	24.6
1998-99	6.6	14.8	21.4	1.3	22.6
1999-2000	6.9	16.7	23.7	1.6	25.2
2000-01	6.4	16.1	22.5	1.5	24.0
2001-02 Q	6.3	16.1	22.4	1.3	23.7

Note: Ratios of capital formation of individual sectors may not add up to totals because of rounding off.

Q: Quick estimates.

Source: Government of India, *Economic Survey, 2002-2003* (Delhi, 2003), Table 1.5, pp. S-8 and S-9.

If we analyze the abovementioned table of domestic capital formation during five decades of economic plan carefully, the following facts can be determined:

1. In the first year of the First Plan, the rate of investment was as low as 8.7% p.a. At this rate of capital formation per capita income could be hardly maintained and any increase in it was ruled out.
2. During first 15 years of planned development in India, the rate of investment gradually increased and in 1965-66 was 16.2% of the GDP. A higher rate of investment was required over a long period for giving a 'big push' to the economy.
3. The rate of investment declined after 1966-67 as a result of poor performance of the economy during the Third Plan period. Ineffective economic planning and built in defects of the mixed capitalist economy asserted and the third plan proved to be a big failure. In this period wars with China and Pakistan further deepened the crisis. All these factors working together adversely affected capital accumulation in the country and the rate of investment slumped down to 13.2% in 1968-69.
4. The rate of gross domestic capital formation in the Fourth Plan period could, however, rise to 17.4%. The peak level was reached in 1978-79 when the investment rate was 21.6% of the GDP. So 1969-70 was the recovery period. But in 1990-91 due to macroeconomic imbalances Indian economy was in a severe economic crisis. After that government adopted measures and introduced comprehensive structural reforms for the improvement of the performance. The process of recovery started in the year 1994-95 and the rate of capital formation was 26.0%. Thereafter for 6 years the rate of capital formation declined and stood at 23.7% in 2001-2002. Obviously this rate of capital formation is far below that is required to transform India's low growth economy into a high growth economy.

No doubt the rate of investment has risen considerably during the five decades of economic planning, but we cannot consider it satisfactory due to following reasons:

1. In the first place, the government is unable to meet the expectation level of its own laid out plans. So, that means government is not at all concentrating on its own targets.
2. So far as the targets of the investments are concerned, the government is unable to meet the same. The rate of the net domestic capital formation never rose to 20%.

Last but not the least the investment rates of a number of 3rd World countries are at present higher than the investment rate in India.

2.4 CAUSES OF LOW RATE OF CAPITAL FORMATION

1. **Low level of National Income and per Capita Income:** Desired Investment shortage leads to low capital formation. It directly affects the level of production and National Income suffers which leads to low Capital Formation.
2. **Lack in demand of capital:** Another reason of low rate of capital formation is lack of demand of capital.
3. **Lack of supply of Capital:** Due to the lack of necessary supply of capital, the process of capital formation is not instigated. as a result low level of capital formation.
4. **Lack of Socio-Economic overheads:** Due to the lack of socio-economic overheads like roads, buildings, communication, and buildings etc. the capital formation becomes low.
5. **Lack of skilled entrepreneurs:** Due to the lack of skilled entrepreneurs the process of capital formation becomes slow and as a result expansion is quite limited and industrial diversification is not carried out.
6. **Immobility of savings:** Due to the lack of banking and other financial institutions, poor countries have limited

financial activities. As a result are unable to generate the savings of remote and small areas. The result is nothing but the low savings. The surplus is invested in luxuries and the process of capital formation is affected.

7. **Technological backwardness:** Due to the technological backwardness, productivity and per capita production is affected and as a result it leads to low level of Capital Formation.
8. **Lack of effective Fiscal Policy:** Due to the ineffective Fiscal Policy the burden of taxation becomes high which results in Parallel Economy. This creates the problem of unfavorable Balance of Trade and Payment and it results in low level of capital formation.
9. **Lack of Investment Incentives:** If Investment Incentives becomes low then it creates low productivity which in turn restricts capital formation.
10. **Unequal distribution of Income and Wealth:** Unequal distribution of Income and Wealth restricts the real investment in the economy which greatly affects the capital formation.
11. **Deficit Financing:** It is considered as a major source of capital formation. But if it crosses the limit, the result is low capital formation. Whenever, deficit financing is made in the country, it leads to inflation, all the commodities become costly. The savings become low and the process of capital formation is affected.

Demographic Reasons: If the population growth is very high, the most of the part of their income is spent on bringing up the additional numbers. The result is nothing but the low savings and it leads to low Capital formation

2.5 REMEDIES

1. Increase in voluntary savings.
2. Economy in Government expenditure
3. Provision of banking facilities in rural areas to promote saving.
4. Control over wastage and conspicuous consumption.
5. Control over inflationary pressures.
6. Control over parallel Economy.
7. Rationalization of Tax structure so that in may prevent unfavorable effect on ability and desire to work save and invest.

2.6 LET US SUM UP :

In this unit we discuss the concept of capital formation, saving, the causes of low rate of capital formation and the remedies to promote capital formation.

Key words :

Capital Formation : Capital formation means all that reproduce wealth by which more accumulation of wealth is possible directly or indirectly. Colin Clark says, “Capital goods are reproducible, wealth used for purposes of production.”

Check your progress :

1. Examine the significance of capital formation in the development process of developing countries.

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2. What are the causes of low rate of capital formation in developing countries? Enumerate measures to raise the rate of capital formation.

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Suggested Readings

1. **Indian Economy**, *S.K. Misra & V.K. Puri*, Himalaya Publishing House.
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SELF LEARNING MATERIAL

ECONOMICS

COURSE : ECO - 104

ISSUES ON INDIAN ECONOMICS

BLOCK - 4

**Directorate of Distance Education
DIBRUGARH UNIVERSITY
DIBRUGARH-786004**

ECONOMICS

COURSE : ECO - 104

ISSUES ON INDIAN ECONOMICS

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ECONOMICS

COURSE : ECO - 104

ISSUES ON INDIAN ECONOMICS

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BLOCK -4

TERTIARY SECTOR IN INDIA

This block consists of three units. The first unit is on infrastructure which includes transport and communication, education and health, information technology etc; The second unit deals with the composition and direction, trade policy of India etc; And the third unit deals with Indian finance.

UNIT – 1 : INFRASTRUCTURE

Structure

- 1.0 Objectives
- 1.1 Introduction
- 1.2 Transport and communication
- 1.3 Educational and Health infrastructure
- 1.4 Information Technology (IT)
- 1.5 Tourism sector
- 1.6 Let us Sum Up

1.0 OBJECTIVES

- 1. Discuss the wide-ranging/multi-dimensional contributions of infrastructure to economic development of India.
- 2. Discuss the social infrastructure facilities like health and education infrastructure ensure a better quality of life for the people in India.

1.1 INTRODUCTION

Infrastructure enables development in rural and urban areas by providing market access to the people, and ensures linking the

producers with the buyers in an integrated market. Infrastructure ensures speedier flow of information, and reduces transaction costs in doing businesses. Social infrastructure facilities like health and education infrastructure ensure a better quality of life for the people. Since a vast majority of the population resides in rural areas, and development challenges are more pronounced in the villages as compared to the cities, provisioning of infrastructure facilities in rural areas enables a more market-led growth. Infrastructure also enables diversification of the rural economy by opening newer avenues for economic activity.

1.2 TRANSPORTS AND COMMUNICATION

Infrastructure is recognized by all to be a major bottleneck to faster economic growth. Roads, rail, ports, airports, water, power, tele-density, each of these essential services and goods, are critical to timely production, movement and delivery at comparative costs and high quality. India trails major Asian neighbours in infrastructure. This emerges from a cursory comparison with China. While India has a larger road network (3.3 million km) compared to China's (1.81 million km), the latter has 30,000 km of expressways as against 3500 km in India by 2004. Similar is the case in tele-density and other sectors.

A fast growing economy like ours requires infrastructure of truly world class. This would also promote global competitive efficiency as a major thrust area. The growing concerns of environmental degradation and energy efficiency should be kept in mind while building infrastructure, particularly in rural areas. Describing the infrastructure deficit as the most glaring deficit in India, the Union Budget 2005-06 has proposed a financial Special Purpose Vehicle (SPV) to finance infrastructure projects in specified sectors like roads, ports, airports and tourism. The SPV will lend funds, especially debt of longer-term maturity, directly to the eligible projects to supplement other loans from banks and financial institutions.

Kessides, in her paper ‘The Contributions of Infrastructure to Economic Development – A Review of Experience and Policy Implications’, highlighted that infrastructure contributes to economic growth, both through demand and supply channels. It reduces the cost of production, contributes to the diversification of the economy, provides access to application of modern technology and raises the economic returns to labour and capital. Infrastructure contributes to raising the quality of life by creating amenities, and provides consumption goods. She, however, argues that infrastructure does not create economic potential, but only develops it where appropriate conditions (inputs like labour and capital) exist.

Canning and Bennathan (2000) argue that a conducive macro-economic environment is essential for efficient resource allocation to reap the positive impacts of infrastructure development. An orientation to economic demand considerations like services prices and user charges is essential as the most enduring benefit of infrastructure is the reliability and quality of the services demanded by the users. User charges should reflect supply and demand conditions, and non-market externalities as far as possible, to ensure that infrastructure is more economically efficient and environmentally favourable. Canning and Bennathan, however, posit that physical infrastructure investment is a form of ‘complementary capital’ that supports services necessary for the operation of productive private capital.

The World Development Report 1994 titled ‘Infrastructure and Development’ stressed the importance of efficient utilization of infrastructure facilities. While in most underdeveloped and developing regions, it is important to increase the existing stock of infrastructure facilities, there should also be a focus on improving the effective utilization of infrastructure facilities. Take for instance, irrigation infrastructure. On the one hand, it is important to invest in expanding the network of irrigation facilities and bring more area under irrigation cover. On the other hand, it is equally important to improve the utilization rate of the existing irrigation

facilities. The effectiveness of infrastructure is significantly dependent on its quality at the time of inception, as well as how well it is maintained over time.

In the modern world where technology is tradable and factor markets (labour and capital) have become integrated both locally (farm labour moves from Bihar to Punjab) and globally (through foreign direct investment), infrastructure plays an enabling role in bringing world markets to local areas. Since infrastructure enables growth, any growth strategy must actively plan for producing the necessary infrastructure to support growth targets. Numerous studies the world over have revealed that investments in rural infrastructure is one of the most potent tools that governments can use to enhance growth and reduce poverty in rural areas. Investments in roads, tele-communications, power supply, drinking water facilities, schools and health care facilities have a positive effect on the quality of life in rural areas.

Status of Roads in India

Roads are primary mode of transport in India. Its roads carry most of the traffic of the country (85 % passengers and 70 % of freight). Although roadways are less efficient and expensive compared to railways or waterways, in India, roadway development received relatively more importance over the years. The total network of highways is 19,81,409 km of which 11,75,352 km (59%) are surfaced roads. National highways, form about 3 % of the total network but carry 40 % of total road traffic.

The quality of road networks in India was severely deficient relative to the standards of modern highways in virtually all dimensions – pavements, road geometry and traffic management.

The uncontrolled mixing of pedestrians, animals, and other slow moving traffic was similar in both countries, contributing both to slow travel speeds, uncertain journey times, and high accident rates.

During 1992-2002, India's road expenditures averaged only \$1 to 3 billion per annum. In contrast, China's spending on highways increased from \$13 billion in 1997 to \$27 billion per annum in subsequent years thereby contributed to China's GDP by at least 2% per annum during the Asian currency crisis and after. During the period, India's road network officially grew by 6 lac km (from 2.7 to 3.3 million km, or 22%), virtually all of the increase was in very low-standard roads to reach more of the rural areas which had before been outside the reach of all weather access. However, high standard arterial highways to connect even the four main cities of India were largely neglected. China's road network officially grew by only 376000 km (from 1.3 to 1.7 million km or 28%), but the emphasis was on the arterial networks. By 2002 some 25130 km of expressways with minimum 4-lanes and controlled-access features plus another 27468 km of 4-lane dual carriageway highways without controlled access features had been completed in China.

In India, under the National Highways Development Project (NHDP) – the largest highway project with shortest time span – 14, 279 kilometers to be expanded to 4/6 lanes, at an estimated cost of Rs. 65,000 crore. The scheme will be funded on a revenue model comprising road tolls, and fuel cess. NHDP consists of the following components:

- The Golden Quadrilateral (5846 km) connecting the four major cities of Delhi, Mumbai, Chennai and Kolkata.
- The North-South (4076 km) and East-West (3640 km) Corridors connecting Srinagar in the North to Kanyakumari in the South and Silchar in the East to Porbandar in the West.
- Port connectivity and other projects – 1133 km.

- Rehabilitation and up-gradation of stretches of Highways carrying high volume and connecting state capitals – 10000 km.
- Accelerated development of 603 km of roads in the North East connecting state capitals and district centres.
- Upgrading 21000 km of single lane roads to double lane roads with paved shoulders.

Till January 2005, about 38% of NHDP work was completed, bulk of which (nearly 80%) relates to Golden Quadrilateral. The progresses on North-South and East-West corridor were quite low, with contracts for 79% of the works were not yet fixed. The constraints faced in implementation of NHDP are:

- Delays in land acquisition and removal of structures.
- Law and order problem in some states and
- Poor performance of some contractors.
- Lack of coordination among implementation agencies.

With respect to infrastructure facilities for market access, around 45% of all villages in India have metalled roads in the village, and around 80% villages have metalled roads within a radius of 5 kms. Nearly 57% villages are connected through all-weather roads, and around 70% villages have all-weather roads within a radius of 2 kms. Above 71% villages have a bus-stop within a manageable distance of less than 5 kms from the village. Connectivity through railways, however, is not present for most villages, as close to 75% of villages in India do not have any railway stations within a radius of 10 kms.

Railways

Indian Railways ranks among the topmost organizations engaged in rail transport business of the world. It has a network of 63, 221 route kilometers (Rkm) till December 2004, of which broad

gauge (46807 Rkm), metre gauge (13290 Rkm) and narrow gauge (3214 Rkm). Around 28% of this network is electrified. As mentioned earlier, it is a very energy-efficient mode of transport. The energy consumption for freight movement on rail is less than one quarter of the consumption on road.

Importance of this organization in the nation's economy can be gauged by the huge amounts of freight and passengers handled by it. More important is the composition of the freight handled – bulk of the traffic had been of coal, steel (and raw materials for the steel industry), iron ore (for export), cement, food grains, fertilisers and POL – basic inputs and outputs of the agriculture and industrial sectors.

As part of Public-Public partnership and Public-Private Partnership, Indian Railways, in partnership with state governments of Andhra Pradesh, Jharkhand, Karnataka, Maharashtra, Tamil Nadu and West Bengal, is executing various projects in the respective states either through cost sharing or formation of joint ventures. A special purpose vehicle (SPV) named Pipavav railway Corporation Limited (PRCL) was formed with equal equity participation from the Ministry of Railways and Gujarat Pipavav Port Limited (GPL) for construction, operation and maintenance of Surendranagar-Pipavav broad gauge line.

The rate of train accidents (per million train km) has come down from 0.55 in 2001-02 to 0.44 in 2002-03, and further to 0.39 in 2003-04.

Areas of concern

- At the beginning of the 1990s, India's highway and railway infrastructure was ahead of that of China in terms of total route km, route km/square km, and route km/head of population, but the utilization of the infrastructure, particularly for railways was quite different. The two railways in 1992 carried almost exactly the same volume of passenger km (314 vs 315 billion pkm), but China Railways

managed to carry 1157 billion tkm of freight or four and half times that of Indian railways 257 billion tkm – through far more efficient exploitation of track, locomotives and wagons and by assigning lower priority to passenger services. Indian railway operation were dominated by passenger services (including suburban operations, a burden not imposed on china railway), but, reflecting the fact that India's citizens enjoyed a far higher propensity to travel, the 314 billion pkm carried by Indian railway constituted only 20% of India's estimated total passenger pkm, while the 315 billion pkm via China railway constituted 45% of China's estimated total passenger market. The share of both railways in their respective freight markets had already substantially eroded over the preceding two decades as trucking, coastal shipping, and in China, also inland water transport took an ever larger share.

- Between 1992 and 2002, India's rail network grew by only 682 route km (1%), double track by 1519 km (10%) and electrified line by 5192 km (48%). In contrast, In China, double-tracked network was extended by 69% (+9400 km), electrified track km doubled (+8975 km), and the overall network route km extended by 24% (+13797 km). More importantly, china's newly extended route included 12367 km built by new local rail corporations, many with private participation, owned and operated separately from the national Railway, unlike India, where Indian railway retained a monolithic monopoly for rail services.
- The investment in the government owned railways during 1992-2002 in India and China was US\$ 17.3 and 85.0 billion, respectively. Surely, Indian railway is facing a financial crisis that needs to be addressed sooner rather than later.
- Freight market share is down and falling, mainly due to low quality, overpriced services.

- Large workforce, low productivity and growing staff cost as proportion of total costs.
- Lack of customer focus – Indian railway’s three markets (freight, intercity passengers, and suburban passengers) need differentiated organization. Indian railway’s current management structure and government department attitude does not allow proper response to customer needs.

Civil Aviation

The government of India had nationalized airline industry in 1953. Consequently, Indian Airlines had been the monopoly operator in the domestic sector till recently. However, economic liberalization policy of India has been instrumental in opening up the airline industry to private operators in recent times. The table given below may give us some idea about how the private sector is quick to grab the substantial market share. Private airlines accounted for more than 60% of domestic traffic of the country in 2004-05.

Table 4.1.1
Passenger traffic 2003-04

Operator	Growth (%)	Share (%)	Load factor (%)	Passengers per day
Air India	(-) 4.2	14.9	73.1	7862
Indian Airlines	4.2	30.5	60.5	16100
Alliance Air	9.4	8.0	60.2	4244
Jet Airways	--	35.8	63.8	18898
Sahara India Airlines	--	9.8	60.8	5271
Air Deccan	--	1.0	61.9	408
Total		100.0		52783

Air India Express has been launched to operate passenger air services on ‘low cost low-fare’ basis, within the country and among Asian countries. Low fare passenger services were also providing by the private airlines like Air Deccan. About 42 non-scheduled operators have also been permitted to perform various

types of air operations like patrolling, remote sensing mapping, aerial, spraying of agricultural insecticides etc.

The frequency of international flights from different Indian cities has increased many fold in recent times, due to increasing 'business-education-health-travel' related movement particularly from Gulf countries. Initially international operations were allowed to/from Kolkata, Delhi, Mumbai and Chennai. Of late, the government has allowed international flights from Trivandrum, Cochin, Hyderabad, Bangalore, Mangalore, Patna, Amritsar, Jaipur and Varanasi.

To facilitate tourism, government of India is also considering to open domestic airports for international operations.

There is an urgent need to upgrade the existing infrastructure of both domestic and international airports. However, the main problem is growing requirement of funds, which cannot be managed from conventional sources. Consequently, Public-Private partnership concept is getting popularity even in the areas of building airport infrastructure across the country. Two new green-field airports with private sector participation (Bangalore International Airport Limited – BIAL and Hyderabad International Airport Limited – HIAL), are coming up at Bangalore and Hyderabad. The state governments and Airport Authority of India would also participate in the equity. AAI is also considering development of non-metro airports namely Ahmedabad, Amritsar, Goa, Guwahati etc on similar lines to provide world-class infrastructure facilities at these emerging economic centres.

Government would encourage the operation of small aircraft/air taxis, in collaboration with state government/Urban local bodies/residents of a specific locality. Tourist operators will be able to manage, where feasible, such airports/airstrip at reduced cost to boost tourism on a national scale, not hitherto seen.

Considering constraints of seat availability during the peak season, a limited open sky policy was introduced for the period November 2004 to March 2005. Under this airlines were permitted

to operate additional air services to/from India subject to the existing terms or commercial agreements with Air India/Indian Airlines. Consequently, domestic traffic has registered a growth of 24.7 % in 2004 over 2003. The international traffic has also witnessed an 18% growth.

Ports

Ports are a crucial part of the transportation infrastructure of the country. The international experience with economic development has emphasized the development that has taken place near the coast through 'gains from trade'. Ports are convergence point for several complementary business interests like, shipping companies, port authorities, terminal operators freight forwarders, inland logistics agencies, shippers, etc. Transportation by ship is highly energy-efficient and cost effective.

In India, the major ports located in Kandla, Mumbai, Jawaharlal Nehru port, Murmagao, New mangalore, Kochi, Tuticorin, Chennai, Ennore, Visakhapatnam, Paradip and Kolkata together handle about 75% of the traffic. There are 185 minor ports with a pronounced accent on the west coast. Maharashtra (53), Gujarat (40) and Andaman and Nicobar Islands (23) dominate the minor port sector.

The recent years registered around 10% growth in cargo handled by major ports. Petroleum products, iron ore, coal formed bulk of the cargo (excluding the container traffic) handled at major ports. About 80% of total volume of traffic handled was dry and liquid bulk. General cargo and container traffic formed the rest. While traffic has grown well, container-handling facilities are nowhere near the world standards. There is considerable lag when compared with international ports. The largest port in the world, Hong Kong, processed 20.1 million TEUs (Twenty-foot Equivalent Units) in 2003. The 10th largest port, Antwerp, handled 5.4 million TEUs. In contrast, India's largest port Jawaharlal Nehru Port handled just above 2 million TEUs in 2003.

One positive development is that Public Private Partnership (PPP) has caught up with the port sector's growth. Altogether, 13 projects with an annual capacity of 47.40 million tonne, involving an investment of about Rs. 2600 crore have already been completed /operationalised. Another 23 projects (with 89.29 million tonne capacity, costing Rs. 7100 crore) are at various stages of implementation.

Postal and telephone network

India has the largest postal network in the world. At the time of Independence there were 23344 post offices throughout the country of which 19184 post offices were in the rural areas and 4160 in urban areas. Today, India has 155669 post offices, of which roughly 89% were outside cities.

It is a matter of concern that there is an element of subsidy to the extent of 85 % of cost in opening post offices in hilly, desert and inaccessible areas, whereas the subsidy in opening post offices in normal rural areas is to the extent of 60 – 66% of the cost.

Nearly 80% of villages in the country have postal facilities available within a radius of 5 kms. There has been a substantial improvement in tele-communications infrastructure in the country as well. In a short-span of a decade and a half, the network of telephone facilities has expanded substantially to rural areas as well. By 2002, around 60% villages had access to telephone facilities within a distance of 5 kms. This has also opened up opportunities of providing internet connectivity through telephone lines to the rural population as the telephone booths can be converted into internet kiosks.

Many corporations in India, both in the public and the private sector, are looking to expand the reach of mobile and internet services to rural India. However, despite the giant strides in the growth of tele-communication, the telephone penetration rate of about 9.0 phones per hundred populations seems very low. In other words, the country offers vast scope for growth in this sector.

The structure and composition of telecom growth has undergone a substantial change in terms of mobile versus fixed phones and public versus private participation. In 1999, both mobile phones and private sector separately accounted for 5% of total number of phones. In October 2004, mobile phones accounted for 50% of total phones and the private sector accounted for 44% of total phones.

After the announcement of New Telecom Policy 1999, progress in telecom in India has been very fast:

- On April 13, 2005, number of telephone connections in India crossed the 100 million mark. It can be noted that the number of phones provided in the country up to 1995 was only about 2.2 crore since the introduction of phones in India. In the recent past, every month more than 20 lakh phones get added i.e, about 70000 persons are provided phones each day.
- After China, America, Japan and Germany, India becomes the fifth largest country having a broad telephone network.
- India is having tele-density at 9.13% while China has 55% and America, japan and Germany have more than 100% tele-density.
- 87% villages in India have been covered under the network of rural telephone.
- 5.45 million Internet connections have been issued by December 2004.
- Fixed line connections were 17.8 million in 1998, which touched the level of 58.81 million on April 13, 2005.
- The number of mobile phones has overtaken the number of fixed phones.
- The share of private sector has also increased to more than 45% in the total phones.
- More than 87% of the villages have already been covered by providing 5.30 lakh village public telephones (VPTs). Most of the VPTs have been provided by BSNL.

Target:

- 250 millions telephones by 2007. Of these phones, around 180 – 200 million phones are estimated to be mobile phones and the public sector operators would contribute about 50%.
- 22% tele-density by 2007.
- Operators would cover about 5000 cities and towns ‘within next few months’. Wireless phones would play an important role in achieving the plan objective of telephone on demand. By the end of 2007, the entire country shall be connected by phone.
- The internet connections shall increase from 5.45 million in December, 2004 to 18 million by 2007 and further to 40 million at the end of 2010.
- 9 million broad band connections by 2007 and further up to 20 million by 2010. It is widely recognized that the use of broadband services greatly contributes in the growth of GDP through applications including e-education, e-health, tele marketing, e-governance, entertainment, etc.
- Introduction of 3G technology would enhance voice capacity, higher data speeds etc. which in turn would facilitate e-initiatives of the government such as e-governance, e-health, e-education, etc.

Key policy developments in the telecom sector

- The International long distance business was opened up for unrestricted entry.
- The monopoly of VSNL over International Long Distance (ILD) service was ended.
- Large number of villages covered through Wireless in Local Loop (WLL).
- The National Internet Backbone (NIB) was commissioned.
- Radio Frequency Spectrum allocation is being modernized and automated to efficiently address the dynamic needs of the liberalized sector.

The mobile telephone connection was taken out from 'one out of six criteria' for the purpose of filing income tax return to encourage faster expansion of mobile telephony. To encourage technological upgradation, withholding tax on technical services has been reduced from 20% to 10%. Also, because of the initiatives of the government to encourage the manufacturing in the telecom sector investment of about \$ 800 (Rs. 3500 crore) is expected to be made by various telecom equipment manufacturers. These are very positive signals for making India a telecom manufacturing hub in Asia-Pacific region and self-reliant in the field of telecom equipment.

As mentioned above, there is a growing class of economists and development planners the world over which believe that once there is equality of opportunities in terms of access to education, health and markets, a broad-based economic growth sets into motion and creates a virtuous cycle of inclusive and equitable economic development in the steady state. Should the government (and the private sector) ensure access to health, education and market infrastructure to every individual in the society, the problem of development (or lack of it) shall be taken care of automatically.

There is considerable difference in infrastructure availability across states. While states like Punjab, Haryana, Maharashtra and Tamil Nadu have relatively better access to infrastructure facilities in rural areas, states like Uttar Pradesh, Madhya Pradesh, West Bengal, Rajasthan and Assam have a long way to go before they provide even basic facilities to their rural areas. There has been stagnation in the level of public investment in rural infrastructure in India in recent times. In the post reform period, between 1993-94 and 2002-03, there has been a decline not only in the share of budgetary expenditure on all rural development and poverty alleviation programmes from 2.08 to 1.87 per cent, but also the share of rural infrastructure development in all social services and poverty alleviation programmes has declined from 32 per cent to 25 per cent.

1.3 Educational and Health infrastructure

In India, almost 66.5% villages have pre-primary schools within the village. Nearly 72% villages have primary schools within the village. However, 88.5% villages have primary schools within a radius of 2 kms from the village. 84% villages have middle schools within a radius of 5 kms from the village. As far as higher education is concerned, most villages do not have access to college facilities. In other words, 73% of villages have colleges at a distance of more than 10 kms. Similarly, 91% villages and 79% villages do not have access to any industrial training institutes and vocational training centres respectively.

Much of the unemployment problem in India can be understood from the above figures. While there is an access to primary and middle schools in most villages in the country, there is hardly any access to vocational training and industrial training centres. In absence of such training centres, most rural people are not able to get training to become skilled labour. In absence of any special skill, these people find it difficult to seek gainful employment, and end-up working as unskilled labour in the unorganized, informal sector, or as agricultural labour in the farm-sector.

Regional variations

Amir Ullah Khan's estimate shows that while 83.80% villages in Punjab have primary schools within the village, only 60% villages in Uttar Pradesh have primary schools within the village. Similarly, figures for Haryana and Maharashtra are 94% and 98% respectively. Some relatively backward states like Rajasthan and Madhya Pradesh also have comparable figures to Punjab in terms of percentage of villages with access to primary schools. In Rajasthan and Madhya Pradesh 89.60 and 84 % villages have primary schools within the village.

Colleges, vocational training centres and industrial training institutes are inaccessible to most villages in almost all the states of the country. For instance, in Rajasthan 86.80% villages do not have access to college facilities, while industrial training institutes are not accessible to 94% villages. In West Bengal, while colleges are inaccessible for 68% villages, industrial training institutes are out of reach of approximately 93% villages. In Assam, both industrial and vocational training centres are not accessed by 96.80 and 81.40 % villages respectively.

As far as access to health infrastructure is concerned, the scenario is not very encouraging. While basic healthcare facilities like an integrated child development centre (anganwadi or balwadi) exists within the village in around 55% villages in the country, higher order health care facilities are not accessible to a vast majority of villages. For instance, for more than 55% villages, a government hospital is more than 10 kms away from the village. In case of private hospitals, more than 61% villages do not have any access to such facilities. However, 79% villages in the country have private doctors/clinics within a distance of 10 kms from the village. In fact, around 56% villages have private clinics within a manageable distance of less than 5 kms from the village. There is no denying the fact that majority of the healthcare delivery in rural areas is through private doctors and clinics.

There exists a disparity in the cost and quality of health services in rural areas as compared to urban areas – the rural people have to spend a larger proportion of their incomes on health services as compared to urban people. As per the estimates of the National Commission on Macro-economics and Health (2005), the proportion of total outpatient expenditure in total household expenditure is 4.72% in rural areas as compared to 3.62 % in urban areas. Also the proportion of total inpatient and outpatient expenditure in total household expenditure is 6.09 % for rural areas as compared to 5.06% in urban areas. Thus, despite the government subsidies on rural healthcare, the rural people spend a larger

proportion of their household incomes on medical expenses as compared to the urban people.

Regional variations in Health infrastructure

In Kerala, 98.60% villages have access to integrated child development centres within the village, and 97.50% villages have access to health sub-centres within a radius of less than 5 kms from the village. Unlike other states, Kerala has a wider coverage of villages under primary health centres as well. For instance, in 2001, 93% villages in Kerala have access to primary healthcare centres within a distance of less than 5 kms, of which close to 20.20% villages have such centres within the village. In contrast, the corresponding figures were : 12.20% for Haryana, 7.70% for Maharashtra, 9.80% for Gujarat and 8.0% for Punjab.

1.4 INFORMATION TECHNOLOGY (IT)

IT has revolutionized the Indian economy in recent times and has become the new source of comparative advantage in this age of knowledge and information. While developed countries are in a significantly advantageous position to exploit the productivity gains from IT, India is placed in a good position to be part of the information revolution due to a healthy reservoir of skilled human resources. The World Economic Forum, in its latest Global Information technology Report (2003-04), has placed India at 45, six places above China (rank 51) among 102 countries considered for the computation of their 'networked readiness index', a measure for the nation's preparedness to capture the benefits of information and communication technologies.

The IT industries in India grew from a mere US\$ 50 million in 1988-89 to an impressive \$ 22 billion in 2004-05. The IT software and services exports touched \$12 billion while the ITES-BPO (IT-Enabled Services/Business Process Outsourcing) exports stood at \$ 5.2 billion. Domestic market revenues grew by 23 % to \$4.8 billion in 2004-05. The industry employee base crossed the

one million mark and the indirect employment attributed to IT-ITES stood at 2.5 million.

The figures also pointed to the fact that offshore outsourcing was indeed a viable option for global companies, who were now increasingly turning to India to fulfill these requirements. MNCs ramped up their facilities in India, scaling operations and enhancing investments. Overall, both Indian and MNC companies began exploring new and emerging areas of the offshore outsourcing horizon, including R&D, engineering services and embedded systems.

While traditional IT services grew at a steady rate, it was the ITES-BPO sector that really stole the show, with a phenomenal 49 % growth. This is the sector that has immense potential even in the North-East Indian states with its large pool of English speaking people.

The NASSCOM-Mckinsey study on Indian IT strategies reported (Dec 1999) that the Indian IT services and IT-enabled services sectors possess the greatest wealth creation opportunity in India's history. The potentials envisioned at 2008 depicts that this opportunity will substantially benefit the overall Indian economy by:

- Accounting for nearly 7.5% of overall GDP growth;
- Creating employment for over 2.2 million people, including highly-skilled, skilled and semi-skilled workers, a growth of about 86% per annum, on an average, is expected.
- Earning over 35% exports revenues for the country, amounting to around \$50 billion in 2008.
- Attract foreign direct investment of over \$ 4 – 5 billion in 2008, more than the total FDI in all industries put together in 2000.

Several recent studies, conducted by pre-eminent research firms, such as, Giga Information group of US, Mckinsey and Co. etc have indicated that in the IT sector India would continue to have an advantageous position over its competitors, such as, Ireland, Israel, Philippines, China, Canada, Russia, Ukraine, et al, simply because of its comparable quality human resources at cheapest cost. Moreover, in terms of numbers the IT resources in India are only second to the US in the world.

Table 4.1.2

Some of the vital statistics of IT in India

Segment	Users in India
PC	7 million, as on July, 2001
Internet	6 million as on July, 2001
Mobile Phones	3 million as on July, 2001
Television	70 million as on July, 2001
Telephones	21.6 million as on March, 1999
Cable connection	40 million as on July, 2001

Table 4.1.3

Growth in exports of IT software and services

Year	Value		% growth over previous year	
	Rs. in million	USD in billion	Rupee term	USD term
2000-01	283500	6.2		
2001-02	365000	7.7	28.75	24.19
2002-03	461000	9.6	26.30	24.68
2003-04	582400	12.8	26.33	33.33
2004-05	739600	17.2	26.99	34.38

Regional Disparities

Table 4.1.4
E-Readiness of Indian States/UTs

1. Leaders	Karnataka, Maharashtra, Tamil Nadu and Andhra Pradesh.
2. Aspiring Leaders	Gujarat, Goa, Delhi and Chandigarh
3. Expectants	West Bengal, Uttar Pradesh and Kerala
4. Average achievers	Madhya Pradesh, Punjab, Pondichery, Haryana and Rajasthan
5. Below Average Achievers	Himachal Pradesh, Uttaranchal, Chhatisgarh, Orissa, Mizoram, Tripura, Meghalaya and Andaman and Nicobar Islands.
6. Least Achievers	Assam, Jharkhand, Lakshadweep, Bihar, Jammu and Kashmir, Sikkim, Arunachal Pradesh, Nagaland, Daman and Diu, Manipur, and Dadra and Nagar Haveli.

Source: India: E-Readiness Assessment Report (2003).

While at the national level India has demonstrated IT power through a large growth in software and related services, state governments have been vying with each other in offering an enabling environment for the growth of IT sectors in their respective states. The Indian software industry is increasingly export-oriented with domestic sales constituting less than a quarter of total sales in 2002-03. Karnataka (Rs. 141 billion out of total software exports of Rs. 475 billion in 2002-03), followed at a distance by Tamil Nadu (Rs. 75 billion) and Maharashtra (71 billion) dominates software exports from the country. Uttar Pradesh (Rs. 45 billion) and Delhi (44 billion) are now the fourth and fifth largest software exporters respectively above Andhra Pradesh (Rs. 41 billion). Haryana (Rs. 27 billion) has also now become a large software exporter mostly from its city of Gurgaon. Punjab, Rajasthan and Chandigarh, however, exported less than Rs. 1 billion each. (Mathew Joseph, 2004).

Areas of concern

- The investment requirements in IT Hardware manufacturing segment is exorbitantly high when compared with the initial investment in IT software and services segment.
- To keep pace with the changing trend in technology, as evident from Moore's Law, which states that the Price/performance ratio of semiconductor devices doubles every 18 months, a huge quantum of money is required to be pumped-in continuously on R&D effort. This has most likely remained as a deterrent for India.
- The economy of scale factor of manufacturers, already present in this segment like, a few MNCs and their developed vendors in select countries, remain as a threat for any start-ups in India.
- Inadequate government initiative at the central and state levels.

1.5 TOURISM SECTOR

India is a multi-destination country with a variety of tourist attraction. It has a rich architectural legacy dating to an ancient past. There are timeless monuments, magnificent temples and breathtaking sites. In Mark Twain's words, 'India is endowed with an imperishable interest on land that all men desire to have seen and having seen once by even a glimpse would not give that glimpse for the shows of all the globe combined'.

The year 1999 was declared as explore India Millennium Year thus focusing on domestic and international tourism. The message tried to convey was 'welcome a tourist and send back a friend'. The National Tourism Policy envisages tourism as a force fostering better understanding, bringing socio-economic benefits and offering opportunities to the youth of the country.

Tourism Growth – Global and Indian scenario

Tourism is the largest industry in the world and has the potential to assist significant number of people, especially the unskilled and women labour force. This largest industry of the globe is projected to grow at 4% every year till 2010. The world tourist trade has been recognized by the IMF and the World Bank as number one generator of income and employment. As per the World Tourism and Travel Council (WTTC) and John Naisbitt reports, global tourism industry

- Employs 10.6% of the global workforce.
- Contributes 10.2% to world's GDP.
- Generates tax revenues of \$655 billion.
- Is the largest industry with \$ 3.4 trillion gross output.
- Accounts for 10.9 % of all consumers spending.
- 10.7% of capital investment in the world, and
- 6.9% of all government spending.

The future projections given by the World Tourism Organisation and the World Tourism and Travel Council are extremely impressive –

- By 2020 there will be 1.6 billion international tourist arrivals worldwide.
- And they will be spending about \$2000 billion.
- The sustained annual average growth rate in tourism will be 4.3 % in arrivals and 6.7% in receipts – which is far above the probable expansion of the world's wealth, which will be growing only at about 3% per annum.
- Between 1995 and 2005, 144 million new jobs would have created in this sector – 112 million of them being in the Asia Pacific region alone.

The global market trends in tourism are changing due to the change in living standards, free time for leisure, advancement in transportation, development in IT, etc. Now majority of tourists all around the world are more keen to participate in cultural tourism,

eco-tourism, natural destinations, rural tourism and above all spiritual tourism. For all these kinds of tourism, India can be treated as best tourist destination as it has all kinds of tourism potential to feed the tourist. It can be noted that Indian planners have been constantly redefining our targets from 2 - 3 million to 5 – 7 million. However, any increase in our earnings is not so much from leisure travelers, but from business travelers.

The overall impact of tourism on India's economy has also been significant. In mid 1990s, apart from 9.1 million direct employment and estimated 12.3 million indirect employment, tourism receipts were 0.9 % of GNP, 9.0% of merchandise export and 56% of commercial services exports.

Table 4.1.5

Contribution of travel and tourism to GDP and Employment

Attributes	World average (%)	India (%)	World bank
Contribution of Tourism and Travel Economy to GDP	10.7	5.3	140
Contribution of Tourism and Travel Industry to GDP	4.2	2.5	124
Contribution of Tourism and Travel Economy to Employment	8.0	5.6	140
Contribution of Tourism and Travel Industry to Employment	3.1	2.9	111

* International and domestic tourism is expected to boom over the next two decades. This is largely attributed to a rise in global wealth, liberalization of international airspace, cheaper flights and use of internet as a travel tool. At the global level, the earnings from tourism have made it one of the world's largest industry and the fastest growing sectors of global trade accounting for 10.7 % of global Gross Domestic Product (GDP), 12.8% of global exports, 8.2% of global employment and 9.4% of global capital investment. However, tourism economy in India accounts for 5.6% of the GDP. In terms of international tourism arrivals, India's share was mere 0.4% of the world tourist arrivals as shown in the following table.

Source: Dept. of Tourism, Govt. of India. Immediate source: Kurukshetra, June 2005.

Table 4.1.6
International and Domestic Tourism

Attributes	World	India	Percentage share of India
International arrivals	698 million	2.64 million	0.40
Tourism receipt	\$ 595 billion	\$ 3.2 billion	0.69
Domestic tourists	6980 million	210 million	4.60

Source: World Tourism Organisation, 2003

Some other benefits of tourism apart from employment generation may be counted as follows:

- Tourism is a multi-dimensional activity and it covers a large number of economic activities. The spread effect of tourism, therefore, is much wider than any other economic activity (M.P. Bezbaruah, 1999).
- The return on investment in tourism from the point of view of employment generation is much higher compared to agriculture and manufacturing sector. A sample survey has shown the following comparative figures of employment generation in table below. For every million rupees invested at 1985-86 prices, employment created in some sectors were estimated to be:

Sector	Jobs
• Agriculture	• 44.7
• Manufacturing	• 12.6
• Mining and quarrying	• 2.6
• Railways	• 0.9
• Other transport	• 13.8
• Tourism	• 47.5
• (Hotel and Restaurant)	• 89.0

Source: Central Statistical Organisation (CSO) Enterprise Survey 1983-84. Ministry of Tourism, Govt. of India.

- Tourism helps development of backward regions because they are not area specific but can be promoted wherever tourism attractions exist. Jammu and Kashmir, Himachal Pradesh, Sikkim, etc are substantially benefited by tourism industry.
- Tourism also helps promotion of handicrafts and handlooms as well as revival of traditional culture and preservation of heritage if properly managed and controlled.

Mr Geoffrey Lipman, the President of the World Tourism and Travel Council in his Oberoi Foundation lecture estimated that by 2010 tourism can provide Indian economy substantial resources even by marginal progress –

- will contribute another Rs. 5,000,00 crore to the GDP.
- 8 million new jobs.
- Rs. 1,30,000 crore in capital investment.
- Rs. 1,60,000 crore in export earnings.

For this to happen the country has to take following steps:

First, tourism as a national priority action;

Second, liberalized economy – open competitive markets;

Third, pursuing a policy of sustainable development;

Fourth, removal of fundamental barriers to growth – incentives for infrastructure growth, rationalize taxes, remove disincentives and

Fifth, professionalize human resource development.

A pragmatic future plan of action should normally be based on two key parameters (M. P. Bezbaruah, 1999), viz. –

(a) Assessment of the ground realities.

(b) Based on such an assessment, making effective plans which, in management terms will imply:

- setting down the objectives;
- taking stock of the organizational capabilities to achieve those objectives; and

- assessing the physical, financial and human resources available to implement the objectives.

Bezbaruah pointed out the following areas where action can be taken:

- Eco-friendly sustainable development.
- Importance of creating awareness and people's participation.
- Improving the quality of services.
- Need for a new thrust in image-building.
- Making travels a pleasure.
- Basic facilities.
- Beautification and Preservation of Heritage.
- Information
- Ease of access
- Infrastructure within the country.

Table 4.1.7

A comparative study of tourist arrivals and forex earnings by India and some selected countries (late 90s)

Country	Arrivals (in million)	Foreign exchange earnings (in billion \$)
USA	44.73	58.37
France	60.58	27.32
Italy	29.18	27.07
Spain	45.13	25.06
Singapore	6.59	7.55
Hong Kong	9.59	9.07
Thailand	6.53	6.61
Indonesia	4.60	7.94
Malaysia	7.94	3.50
India	2.12	2.76

Source: World Tourism Organisation

In spite of the fact that India has some of the most exquisite sites and locales and some of the best world-renowned monuments to see, it has a poor 40th rank in the world. The following reasons, i.e, lack of professionalism, inadequate airport facilities, lack of easily accessible information, unhygienic conditions, law and order problem, inadequate facilitator services, multiplicity of taxes and above all, relatively low priority accorded to tourism, etc are responsible for the poor performance of Indian tourism at global level. Promoting tourism before development of requisite infrastructure is to create dissatisfied travelers.

It is significant to note that in 2002, the New National Tourism Policy was formulated with very vast objectives, mission and strategies. The Policy is based on the following objectives:

- Generating awareness about the benefits of tourism for the host population;
- Mobilise state governments to use tourism as a mean for achieving their socio-economic objectives;
- Encourage the private sector to enhance investment in tourism;
- Provide legislative and regulatory support for sustainable tourism;
- Protect the interests of tourism industry and consumers; and
- Develop and promote rural/farm tourism on priority along with other forms of tourism (cultural tourism, eco-tourism, spiritual tourism, etc.).

1.6 LET US SUM UP

Infrastructure ensures speedier flow of information, and reduces transaction costs in doing businesses. Social infrastructure facilities like health and education infrastructure ensure a better quality of life for the people. Since a vast majority of the population resides in rural areas, and development challenges are more pronounced in the villages as compared to the cities,

provisioning of infrastructure facilities in rural areas enables a more market-led growth.

While traditional IT services grew at a steady rate, it was the ITES-BPO sector that really stole the show, with a phenomenal 49 % growth in recent years. This is the sector that has immense potential even in the North-East Indian states with its large pool of English speaking people.

Tourism gives direction and opportunity to the youth of the country to understand the aspirations and viewpoint of others and help in greater national integration. It offers opportunities to the youth of the country, not only for employment but also for taking up activities for nation-building and character-building like sports, adventure, etc.

Terminal Questions :

1. Give a brief account of India's transport and communication sector. What are the major challenges facing by this sector in recent times?
2. Explain the contribution of IT sector to the Growth of Indian economy. How IT sector can contribute to the growth of tourism in India?

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UNIT 2 – EXTERNAL SECTOR IN INDIA

Structure

- 2.0 Objectives
- 2.1 Introduction
- 2.2 Foreign Trade in India
- 2.3 Composition of India's Foreign Trade
- 2.4 Trade policy of India
- 2.5 Foreign investment – direct and portfolio
- 2.6 Foreign Exchange
- 2.7 Role of multinational firms
- 2.8 External debt of India and Foreign aid
- 2.9 Let us Sum up

2.0 Objectives

This unit is concerned with the performance of external sector and

- The role played by MNCs
- Value ,composition and direction of foreign trade

2.1 INTRODUCTION

Foreign trade or international trade refers to the movement of goods and services across the national frontier. Foreign trade in goods and movement of factors of production plays a vital role in the development of the developing countries like India. Over time India's participation in international trade has increased considerably and India has emerged as one of the leading countries in the world. In this Unit you will learn the volume and composition of foreign trade of India and the external policy adopted by India. The Unit also discusses private foreign investment both portfolio and direct. You will also learn foreign debt and aid received by India.

2.2 FOREIGN TRADE IN INDIA

Trade is a means to economic growth and national development. In addition to earning of foreign exchange, greater economic activity also needs to be stimulated. According to the WTO annual trade volume 2005, India's share in the world merchandise exports, which was 0.66% in 2000, increased to 0.82% in 2004. What is particularly noteworthy is that around 80% of India's merchandise exports emanates from manufactured products. It is also gratifying to note that there has been a sustained spurt in the productivity of the manufacturing sector through fresh investments and technological upgradation. It is also for the first time that the Foreign Trade Policy (announced in 2004) has recognized trade as a driver of greater economic activity and of incremental employment rather than just earning foreign exchange. Experts opine that India would be exporting about \$150 billion of merchandise by 2008-09, if current rate of growth of exports is sustained. Assuming an export target of \$ 150 billion by 2008-09, the total jobs associated with export-oriented activity is likely to be 19.8 million in the next few years.

Both qualitatively and quantitatively, the growth of India's foreign trade can not be termed as satisfactory. In 1950, the Indian share in the total world trade was 1.78%, which came down to 0.6% in 1999, before rising once again, although moderately, to 0.8% in 2003. Consequently, India's position in the list of world's leading exporters was 31st, while in the list of leading importers, it's position was 24th. Nevertheless, India's trade links with all the regions of the world have increased over the years.

Indian exports cover over 7500 commodities to about 190 countries while imports from about 140 countries account for over 6000 commodities. It is a matter of concern that during the whole planning period India's balance of trade has remained unfavourable. For instance, for the entire period of the Ninth Five Year Plan, India's average annual value of exports was US \$ 38 687 million and that of imports were \$ 47099 million. Average

trade deficit of \$ 8412 million per year for the period was more than double the average deficit during the Eighth Plan. In rupee terms, exports rose by 18.5% per annum (compounded) and imports by 19.1 % during the 1990s. The deficit in the balance of trade in India has been increasing, even though our foreign trade has been getting much more broad based. The government has introduced a number of measures for reducing deficit in the balance of trade. The main objective was to control imports on the one hand and to promote exports on the other. The basic reason of increasing deficit in balance of trade in India has been the high import bill of petroleum products. Since July 1991, the government adopted the policy of economic liberalization and a series of economic reforms were adopted in the country, to deal with the problem of permanent deficit in the balance of trade, among others. Devaluation of rupee in 1991, and the convertibility of Indian rupee in trade account and current account during 1993-94 and 1994-95 respectively improved the balance of trade position till mid 1990s. But the deficit once again started to rise in the second half of the 1990s and thereafter.

India's exports and imports have been witnessing very fast growth in recent years. Since 2002-03, exports registered a growth rate of over 20%. Exports registered an increase of 24.41% in US dollar terms in 2004-05, substantially higher than the annual target of 16% for 2004-05. Imports went up by 35.62% during 2004-05. Hence the trade deficit during 2004-05 stood at \$ 26520 million.

As mentioned earlier, trade liberalization and opening up of the Indian economy, the steps towards its integration into a globalised economic system – initiated partially in the 1980s, but were launched on a much more serious and widespread manner in 1991 – have produced some significant changes in the external sector.

In absolute terms, India's foreign trade has grown over five and half times in a period of 15 years. Both imports and exports have increased by that extent during 1990-91 to 2005-06. The external sector of the Indian economy now constitutes about 33% of GDP as compared to 15% in 1990-91.

2.3 COMPOSITION OF INDIA'S FOREIGN TRADE

India's foreign trade sector witnessed a significant structural change particularly during the last two decades. The percentage of non-traditional goods in total exports has continuously increased. The exports of Chemical and engineering goods, apart from IT services have also shown a high growth. During the past few years, handmade goods comprising gems and jewellery, etc. have become one of the important export commodities. However, there is a moderate fall in the percentage share of the exports of traditional items including tea, coffee, rice, pulses, spices, tobacco, jute, iron ore, etc.

Table 4.2.1
Composition of India's exports

Commodity Group	Percentage share	
	2002-03	2004-05
I. Primary products	16.6	14.1
Agriculture and allied	12.8	9.5
Ores and minerals	3.8	4.7
II. Manufactured goods	76.6	73.7
Textiles including RMG	21.1	16.3
Gems and jewellery	17.2	17.5
Engineering goods	17.2	20.1
Chemicals and related product	14.2	14.2
Leather and manufactures	3.5	3.0
III. Petroleum, crude and products	4.9	8.6
IV. Others	1.9	3.5
Total Exports (I+II+III+IV)	100.0	100.0

The imports of petroleum products (30.4% of the total imports in 2004-05), electronic goods (9.3%), Gold and silver

(8.7%), Chemical (7.2%), consumables and intermediates for industrial production and technological upgradation, etc have witnessed moderate to substantial increase over the years. The other few important import items were capital goods (10 %), pearl, precious and semi-precious stones (8%), etc. It is important to note that pearls, gems and stones are imported on a large scale only to export a large proportion of these products after processing, i.e., value addition. Other imports include edible oils, fertilizers, non-ferrous metals, paper and paperboards, pulp and waste paper, etc.

In an economy with just one-fourth of its GDP flowing from industry and more than one-half from the services sector, it would be a fallacy to set aside the export performance of the services sector. Services exports during 2004-05 are estimated to have grown by 80%, i.e., more than thrice the rate of growth of merchandise exports. Consequently, the share of services in the country's exports of goods and services is all set to increase from about 28% in 2003-04 to above 35% in 2004-05. What is important is that the export of miscellaneous services is expected to grow by more than 100% with software service exports escalating by more than 45%. It is not only for business process outsourcing that India is getting famous, but also a whole lot of other lucrative business involving back-room operations for multinationals, medical tourism and health services, architecture, tourism and travel.

Direction of Foreign Trade

The countrywise top five destinations for India's exports during 2004-05 were the USA (16.74%), UAE (8.96%), China (5.79%), Singapore (4.79%) and Hongkong (4.61%). The direction of India's foreign trade witnessed a change more particularly during the last decade. The reasons are many:

- Till 1991, around 18% of the total Indian exports were meant for the USSR and other socialist countries of East-Europe. Due to division of USSR and structural changes in economies of East-Europe our export percentage got reduced to a mere 1.2% in 2003-04. Nevertheless, exports to Russia have shown an increasing trend during the past couple of years.
- As already mentioned, the USA is India's largest trading partner. It constitutes 17% of our exports and 6.4% of the imports. The share of non-traditional items and value added products have been increasing in our exports to USA, while our imports to USA comprised mostly of engineering products and chemical product. The Indo-American trade relations have been adversely affected due to imposition of American trade laws like Super-301 and Special-301 after the Pokhran issue.
- India's foreign trade has partially been shifted from West-Europe to East-Asia and OECD countries. The high growth rate in Japan and ASEAN countries gave a high demand and favourable market to Indian exports. This has been one of the major reasons responsible for increasing Indian exports to East-Asian region of the world.
- Also, the countries of West-Europe (France, Spain, Portugal, etc) registered the phase of depression in their economies during the last decade. Consequently, Indian exports to these countries got reduced in recent times.
- China has emerged in 2003-04 as India's third highest trading partner, after the US and UAE, overtaking countries like UK and Belgium. The much improved bilateral 'political and trade' relationship in recent times has contributed to the robust growth of trade between these two largest economies.

Table 4.2.2
Foreign Trade Direction

Foreign Trade	Export		Import	
	% share		% share	
	2002-03	2003-04	2002-03	2003-04
OECD countries	50.0	46.4	37.9	37.8
OPEC	13.1	15.0	5.7	7.2
Eastern Europe	1.8	1.8	1.3	1.6
Other LDCs	30.8	32.6	19.6	20.1
Others	4.2	4.2	35.5	33.3

During 2003-04, India's export growth was above 26% in the ASEAN region. Imports sourced from the ASEAN region also grew by 44.3 %, taking the two-way trade to 9.3 % of India's total external trade in 2003-04. Export growth to developing country region, OPEC and Eastern Europe accelerated in 2004, over the previous year. The sourcing of imports in 2003-04 showed higher share from regions like OPEC, eastern-Europe and other developing countries (especially from Asia), with the share of OECD region remained same.

Trade with SAARC region countries was also buoyant with exports to the region growing by 47.8 % and imports sourced from it rising by 24.8% in 2003-04.

2.3 TRADE POLICY OF INDIA

India's foreign trade policy has undergone a sea- change over the last few years. Till the late 1980s, India's foreign policy was characterized by high scale quantitative restrictions, high tariff rates, strict foreign exchange regulations, etc. The Export and Import Policy (EXIM), Medium Term Export Strategy (MTES) for 2002-07 framed from time to time helped to strengthen the export production base, remove procedural irritants, and facilitate input availability besides focusing on quality and technological

upgradation and improving competitiveness. Steps have also been taken to promote exports through multi-lateral and bilateral initiatives, identification of thrust areas and focus regions.

For India to become a major player in world trade, an all encompassing, comprehensive view needs to be taken for the overall development of the country's foreign trade. While increase in exports is of vital importance, the country also needs to facilitate those imports, which are required to stimulate our economy (Vijaya Katti, 2005). In 2004-05, it was felt that the Exim Policy with its limited focus may not be able to meet these objectives. It became necessary to go much beyond and take an integrated approach to the developmental requirements of India's foreign trade. It was in this context that Exim Policy was renamed as the new Foreign Trade Policy.

The Foreign Trade Policy (2004-09) is built around two major objectives, namely –

- i. To double India's percentage share of global merchandise trade by 2009 (Big push to exports to garner 1.5% of the world share by 2009).
- ii. To act as an effective instrument of economic growth by giving a thrust to employment generation, especially in semi-urban and rural areas.

The following strategies had been prescribed in foreign Trade Policy 2004-09 for achieving the above-mentioned ambitious objectives:

- Unshackling of controls and creating an atmosphere of trust and transparency to unleash the innate entrepreneurship of our businessmen, industrialists and traders.
- Simplifying procedures and bringing down transaction costs.
- Neutralising incidence of all levies and duties on inputs used in export products, based on the fundamental principle that duties and levies should not be exported.

- Facilitating development of India as a global hub for manufacturing, trading and services.
- Identifying and nurturing special focus areas which would generate additional employment opportunities, particularly in semi-urban and rural areas, and developing a series of ‘Initiatives’ for each of these. It carries ‘special focus initiatives’ for identified ‘thrust’ areas like agriculture, handicrafts, handlooms, gems and jewellery, leather and footwear.
- Facilitating technological and infrastructural upgradation of all the sectors of the Indian economy, especially through import of capital goods and equipment, thereby increasing value addition and productivity, while attaining internationally accepted standards of quality.
- Avoiding inverted duty structures and ensuring that our domestic sectors are not disadvantaged in the Free Trade Agreements/Regional Trade Agreements/Preferential Trade Agreements that we enter into in order to enhance our exports.
- Upgrading our infrastructural network, both physical and virtual, related to the entire Foreign Trade chain, to international standards.
- Revitalising the Board of Trade by redefining its role, giving it due recognition and inducting experts on Trade Policy.
- Activating our Embassies as key players in our export strategy and linking our Commercial Wings abroad through an electronic platform for real time trade intelligence and enquiry dissemination.

A new scheme to establish Free Trade and Warehousing Zones (FTWZs) has also been introduced to make India a global trading hub. The aim would be to create trade-related infrastructure to facilitate the import and export of goods and services with the freedom to carry out trade transactions in free currency. Foreign direct investment would be permitted up to 100 % in the

development and establishment of the zones and their infrastructure facilities. Each zone would have a minimum outlay of Rs. 100 crore and units in the FTWZs would qualify for all other benefits as applicable to SEZ units.

Three new export promotion schemes have been introduced:

- Target Plus Scheme.
- Vishesh Krishi Upaj Yojana (for boosting exports of agriculture products).
- Served from India scheme (for boosting export of services).

International trade is dynamic and market conditions change frequently, requiring quick responses. Five years is a long period for a policy to be continued without incorporating requisite changes. That is why it is revised annually. Annual revision to the Foreign Trade Policy 2004-05 has been announced on April 8, 2005, which included the following measures:

- Removal of export cess on all agri and plantation commodities.
- Reduced export obligation for SSIs under the Export Promotion capital Goods (EPCG) scheme.
- Inter-state trade council proposed for export promotion.
- Packages for marine and EOU (Export Oriented Units) sectors under way.
- New deal to boost gem and jewellery sector.
- Exports of value added dairy and poultry products facilitated.
- Measures to make EPCG scheme more attractive to exporters.
- Annual advance licence to be available to all exporters.
- New trademark for handlooms on the lines of Woolmark and Silkmark.
- Infrastructure initiative to reduce congestion at major ports.
- Procedural simplification and cutting transaction costs.
- Steps unveiled to enhance competitiveness of manufacturing sector.

Balance of payments problem

Balance of Payment (BOP) is the statement of the country's trade and financial transactions with the rest of the world during the year. In early 1990s, the government of India faced with a severe 'balance of payments problem'. There was a huge deficit in India's trade balance and current account balance, while the surplus in the capital account was limited. This was responsible for the exhaustion of our foreign exchange reserves. To get rid of the situation, the government of India adopted quite a few measures of both short and long term nature. Subsequently, India's balance of payment position improved significantly.

India's balance of payments are now much more comfortable compared to the 1990s, when government was compelled to pledge gold to foreign countries to meet its international obligations. The current account deficit which signifies country's overall current liabilities has come down from the level of 3.1% of GDP in 1990-91 to a current account surplus of 0.3% of GDP in 2001-02., implying a situation where the current receipts exceed current liabilities. The current account surplus during the current decade is largely attributable to the buoyant inflows of invisible receipts. As a proportion of GDP invisible balance increased by 1.2 percentage points from 3.1% in 2001-02 to 4.3% in 2003-04.

On the capital account inflows have remained buoyant, except in 1995-96, bolstering the reserves during this period. Overall balance of payments position has, thus transformed over the past decade from a difficult one at the beginning of 1990s.

The capital account of India's BOP gained further strength during 2003-04 over 2002-03. The surplus in the capital account nearly doubled from its previous year's level to cross US \$ 20 billion.

The rise in FDI, particularly of FIIs, has substantially contributed to the improvement of the BOPs in India. However, some of the serious concerns are – rising oil price in the international market, rising import bill (import growth is much faster than the exports), Increasing share of FIIs in total FDI which is often termed as ‘floating capital’, etc. Thus, there is no scope for complacency. We still imports more than what we could exports.

The improved BOP situation of the country has been instrumental for introducing the following measures, some of which are under the IMF’s continuous pressure:

- Full convertibility of rupee in the current account.
- Import liberalization
- Liberalisation of Gold Import Policy.
- Import of agricultural products from industrialized nations allowed.

2.5 FOREIGN INVESTMENT – DIRECT AND PORTFOLIO

Foreign investment, which amounted to a meager \$ 103 million in 1990-91, increased to \$ 17224 million in 2005-06. Foreign direct investment increased from \$ 97 million in 1990-91 to \$ 4730 million in 2005-06; foreign institutional investment rose much faster – from zero in 1990-91—to \$ 9926 million in 2005-06.

Aggregate foreign investment flows experienced a rapid rise since 2003-04. On a year-on-year basis, such flows (net) increased by 255 %. While foreign direct investment (FDI) flows increased only marginally (by around US\$ 200 million), portfolio flows (net) witnessed an eleven-fold increase, accounting for nearly 77% of net foreign investment inflows. However, in terms of

foreign investment, it is the direct investment that should be thrown wide open to foreign direct investment.

Foreign Direct Investment brings huge advantage like new capital, technology, managerial expertise, reducing pressure on foreign exchange reserves and access to foreign market with little or no downside. All over the world FDI is now recognized as an important source of non-debt finance. It is increasingly being sought as a means of technology inflow and of establishing inter-firm connections in a world of multinational corporations (MNCs) operating primarily on the basis of a network of global inter-connections. 'FDI is seen as a means to supplement domestic investment for achieving a higher level of economic growth and development. FDI benefits domestic industry as well as the Indian consumers by providing opportunities for technological upgradation, access to global managerial skills and practices, optimal utilization of human and natural resources, making Indian industry internationally competitive, opening up export markets, providing backward and forward linkages and access to international quality goods and services. Most importantly, FDI is central for India's integration into global production chain, which involve production by multinational corporations spread across locations all over the world'.

MNCs offer the capital, international market access, and technology that India lacks, and are therefore vital to remoulding India as a strong and rapidly growing economy. The FDI has proved to be resilient during financial crisis (B. S. Bodla and Usha Bhati, 2004). For instance, in East Asian countries, such investment was remarkably stable during the global financial crises of 1997-98. In sharp contrast, other forms of private capital flows – portfolio equity and debt flows, and particularly short-term flows were subject to large reversals during the same period.

Table 4.2.3

FDI to India: Approvals versus Actual Inflows (Rupees in billion)

Year	Approvals	Actual Inflows	Realisation rate (%)
1991	5.3	3.5	66.04
1992	38.9	6.8	17.48
1993	88.6	17.9	20.20
1994	141.9	32.9	23.19
1995	320.7	68.2	21.27
1996	361.5	84.4	23.35
1997	548.9	120.4	21.93
1998	308.1	92.1	29.89
1999	283.7	73.0	25.73
2000	370.4	83.9	22.65
2001	268.7	131.0	48.75
2002	108.9	68.7	63.00
Total	2845.6	782.8	27.5

Between 1991 and 1997, FDI approvals as well as actual flows have increased considerably in India. Actual inflows, which were merely Rs. 3.5 billion in 1991, reached Rs. 120.4 billion in 1997. But during 1998 – 2002, the FDI flow declined considerably, compared to the previous trend as well as the target set at the beginning of the financial years. The Asian crisis and sanctions imposed on India as a consequence of nuclear explosion test etc may be attributed to the poor performance of the Indian economy on the FDI front. It is a matter of great concern that the actual FDI flow, as a percentage to approvals has remained very dismal in almost each year since 1992. Actual FDI as a proportion of FDI approved accounted for only 27.5 % for the period between 1991 and 2002. It was only during the last few years that the actual flows as percentage of the originally proposed FDI has increased substantially.

The FDI flow in India looks very thin when we compare it with China's performance in this field. China has always been the largest recipient of FDI among the Asian countries. It received 63.67% of the total FDI in 1986 which rose to 82.05% in 1995,

85.52% in 2001 and further up to 86.81% in 2002. Contrarily, the share of India among the Asian countries had been hovering from 4 – 5% between 1986 and 2000. India's share rose to 6.21% in 2001, but receded once again to 5.68% in 2002. It shows that India needs to do a lot to attract more FDIs as many Asian countries such as China, Singapore, Malaysia, Hongkong, Thailand, Taiwan are in some respects ahead of India.

Table 4.2.4a
FDI Overview – India and China

Year	India		China	
	FDI Inflow (millions US\$)	FDI Inflow as per cent of GFKF	FDI Inflow (million US\$)	FDI Inflow as per cent of GFKF
1985-1995 (annual average)	452	1.9	11715	6.0
2001-2002	3403	3.2	46878	10.5
2002-2003	3449	3.0	52743	10.4
2003-2004	4269	3.2	53505	8.6
2004-2005	5335	3.4	60630	8.2

Note: Gross Fixed Capital Formation (GFKF).

Source: UNCTAD World Investment Report, 2006.

Table 4.2.4b
FDI Overview – India and China

Year	India		China	
	FDI Stock (million US\$)	FDI as per cent of GDP	FDI Stock (million US\$)	FDI as per cent of GDP
1980-81	452	0.2	1074	0.5
1990-91	1657	0.5	20691	5.8
2000-01	17517	3.7	193348	17.9
2002-03	30627	5.2	228371	16.2
2004-05	38676	5.9	245467	14.9

Note: Gross Domestic Product (GDP).

Source: UNCTAD World Investment Report, 2006.

Regarding the share of different nations in India's FDI inflows during August 1991 to November 2004, Mauritius (34.49%) stands first, followed by USA (17%), Japan (7.33%), Netherlands (7.16%), and UK (6.56%). The share of the Mauritius in India's aggregate FDI approvals increased dramatically. In fact, Mauritius has become India's largest investment partner in the new millennium. Many MNCs took the advantage of the bilateral agreement between India and Mauritius governments on 'no double taxation', by establishing a office in Mauritius first and then, investing in India through the Mauritius route. However, it is very clear that unlike the past, when India had to depend largely on the US for capital inflow, the new millennium has witnessed a drastic change in the sources of foreign funds. In fact, a number of developed western nations have substantially increased their stake in India in recent years.

India's FDI inflows as percentage of total GDP is quite low in comparison to other developing countries. India was able to attract FDI equal to merely 0.9% of its GDP in 2002 as against Malaysia's 3.9%, and China's 3.8%.

Among the top five states attracting major share of FDI approvals were Maharashtra (14.8%), Delhi (12.2%), Tamil Nadu (9.05%), Karnataka (7.63%) and Gujarat (4.97%). A few of the Indian states have been more reform-oriented, such as Maharashtra, Delhi, Tamil Nadu, Karnataka, Gujarat and Andhra Pradesh, but states such as Haryana, Kerala, Orissa, Madhya Pradesh, Punjab, Rajasthan and West Bengal have a lot to catch up with. The other states like North-East states, Uttar Pradesh and Bihar are lagging far behind in the race to attract FDI, or to increase the State's GDP through continuous reforms.

Sector-wise break-up of FDI and technical collaboration approved after globalization reveals some positive changes over the last decade. The engineering sector received the largest (32.11%) shares of total FDI. While telecommunication sector stands at the second position by receiving the 17.83 % share of total FDI, and

transport sector stands in the third position by attaining 6.85% share of total FDI between August 1991 to January 1999'.

In India FDI has been primarily targeted towards infrastructural development, with almost half of the approvals being directed towards power and telecommunications sector alone. Only one-fourth of total approvals were directed towards major exporting sectors like textiles, chemicals and pharmaceuticals, leather goods, transport, metallurgical and food processing industries.

Major initiatives to attract FDI in India

In pursuance of Government's commitment to further facilitate Indian industry, government has permitted access to FDI through automatic route, except for a small negative list. Latest revision to further liberalise the FDI regime are as under:

- Increase in the FDI limits in 'Air Transport Services (Domestic Airlines)' up to 49% through automatic route and up to 100% by non-resident Indian (NRIs) through automatic routes.
- Foreign investment in the banking sector has been further liberalized by raising FDI limit in private sector banks to 74% under the automatic route including investment by FIIs. The aggregate foreign investment in a private bank from all sources will be a maximum of 74% of the paid up capital of the bank and at all times, at least 26% of the paid up capital held by residents except in regard to a wholly owned subsidiary of a private bank. Further the foreign banks will be permitted to either have branches or subsidiaries, not both.
- FDI ceiling in telecom sector in certain services (such as basic, public mobile radio trunked services (PMRTS), global mobile personal communication service (GMPCS) and other value added services), has been increased from 49% to 74%, in February 2005.

- In January 2004, guidelines on equity cap on FDI, including investment by NRIs and Overseas Corporate Bodies (OBCs) were revised as under:
 - FDI upto 100% is permitted in printing scientific and technical magazines, periodicals and journals subject to compliance with legal framework and with the prior approval of the government.
 - FDI upto 100% is permitted through automatic route for petroleum product marketing, subject to existing sectoral policy and regulatory framework.
 - FDI upto 100% is permitted for Natural Gas/LNG pipelines with prior government approval.

2.6 FOREIGN EXCHANGE

Foreign exchange reserves which were hardly enough for import cover of 2.5 months in 1990-91, rose to \$ 180 billion as on March-end, 2006, making for 16 months of a much larger (5.5 times of 1991) import cover.

The foreign exchange reserves of India consist of foreign currency assets held by the RBI, gold holding of the RBI and SDRs. India's foreign exchange reserves crossed the historic \$ 100 billion mark on December 19, 2003. A strong balance of payments position in recent years has led to a steady accumulation of India's foreign exchange reserves. In the era of liberalization started in 1991, due to various economic reforms, particularly liberalization of exchange rate restriction, the foreign exchange reserves grew by \$ 3 – 4 billion a year but from 2000, these accelerated by \$ 4.3 billion in 2000-01, \$ 11.8 billion in 2001-02 and \$ 21.3 billion in 2002-03 and \$ 36.9 billion in 2003-04.

Foreign exchange reserves have rapidly increased in India in the post reform period due to various reasons, which are as follows:

- Devaluation of rupee.
- Availability of loans from international institutions.
- Availability of foreign exchange from NRIs under various schemes.
- Increased foreign investment (direct and portfolio).
- Full convertibility of rupee in current account.
- Absorption of dollar supplies by central bank.
- Easy access to external commercial borrowing.

2.7 ROLE OF MULTINATIONAL FIRMS

An MNC is defined as a corporation or enterprise that conducts and controls productive activities in more than one country. It often considers overseas operations as its more profitable venture. They are mainly profit-seeking huge commercial enterprises. MNCs are not essentially agents of development or carriers of changes in LDCs.

MNCs are also known as Transnational Corporations (TNCs). Instead of aiming for maximization of their profits from one or two products, MNCs operate in a number of fields and from this points of view, their business strategy extends over a number of products and over a number of countries. They possess staggering resources as would be clear from the fact that their direct investment stock on a worldwide basis increased from \$ 105 billion in 1967 to \$ 287 billion in 1976. The stocks of direct investment of MNCs have grown at about the same rate as the gross national produce of developed countries. It is because of their huge capital resources, latest technology and worldwide goodwill, virtually MNCs are in a position to sell whatever product they choose to manufacture in different countries. There is no gainsaying that the people in underdeveloped countries are 'crazy' for the products of these corporations and prefer their products to the products produced indigenously (E. Chandran, 1990). R. Gilpin observed 'in 1969 the American Multinationals alone produced approximately \$ 140 billion worth of goods more than any national economy except those of US and the Soviet Union'.

FDI accounted for about 43% of total net foreign resource flows to LDCs in 2001, compared to a modest 16% in 1986. The bulk of FDI in LDCs is made by multinational corporations (MNCs).

The activities of the MNCs have been many and varied. These can be perceived at two levels. One consists of services that these MNCs offer in respect of capital, technology transfer, research and development of know-how in several fields, including the marketing of products. These are given in package deals and are described as direct investments. The second aspect consists of products/goods.

Dominance of MNCs in India

MNCs have a strong hold over the Indian economy. Three decades back, these corporations controlled 54% of the assets of the giant sector in India. According to the Industrial Licensing Policy Inquiry Committee, there were 112 companies in India in 1966 with assets worth Rs. 10 crores or more. Of these, 48 companies were either branches of foreign companies or were subsidiary companies. In addition, there were 14 companies where either a substantial amount of foreign capital was invested or which had obtained substantial foreign loans for conducting their operations. According to D. S. Swamy, a number of other companies were also under foreign domination in one way or another.

In India, MNCs operate in such diverse fields as pharmaceuticals, electrical machinery, chemicals, aluminium, metal and products, heavy engineering goods, etc. These enterprises have been the source of FDI in India. Andrew Yule and Company, Martin Burns Ltd, Bird and Company, IBM, ITC, Caltex, ESSO, Phillips, Colgate, Palmolive, Pepsi and Cocacola and several other companies affiliated with MNCs have been conducting business in India.

The liberalized foreign investment policy has already allowed MNCs in 100% Export Oriented Units (EOUs). The export

potentialities of India can be fully exploited through MNCs. MNCs can help to globalize Indian economy through their wider market base and experience of operating in global markets.

In 1990-91, debt-creating inflows (external assistance and external commercial borrowings) were of the order of 81.8% of the total foreign capital. Consequently, in the pre-reform period, debt service payments were above one-third of the current receipts. In other words, more than one-third of our export earnings were drained out as interest and repayments of loans. The MNCs through non-debt creating capital inflows, can help India to reduce liability of debt servicing payments.

MNCs can play an important role in reducing stress and strain on India's BOP situation. During the 1990s, the private foreign investment alone financed above two-thirds of the current account deficit.

The MNCs through technological collaborations, can ensure the transfer of modern technology to Indian companies. In India, only 0.6% of GDP is spent on R & D. The increasing participation of MNCs in Indian economy may enhance the resource allocation in this vital sector.

More Areas of concerns

- MNCs in India have raised a major part of investment resources from within Indian economy. A study on the sources of finance of MNCs conducted by Sudip Chaudhuri for the period 1956-75 revealed that foreign sources (in the form of foreign share capital and foreign loans) contributed only 5.4% of the financial resources of these companies, 94.6 % being contributed by the domestic sources. This fact is very important since it explodes the myth that MNCs bring in large amounts of foreign capital with them. The real position is that MNCs collect most of the capital from within the country itself but repatriate large amounts of the profits to their home countries.

- Since MNCs transcend national frontiers, they have loyalties to none.
- Since they are in the nature of oligopolies, they have the power and do everything possible to eliminate any actual or potential competition. In fact, MNCs are charged with predatory practices. These include many techniques such as reciprocity agreements among different firms to share markets, manipulation of markets, etc.

To piece together the various points, one is inclined to the view that the beneficial role of the MNCs is rather limited. These corporations have more relevance in the initial stages of development of underdeveloped countries where the needed technology can be had only by purchasing it from developed countries, and where there is need for marketing of some manufactured goods in developed nations. Any more dependence on them can be very harmful in terms of costs as also political interference.

2.8 EXTERNAL DEBT OF INDIA AND FOREIGN AID

Foreign assistance – debt and aid -- has been playing an important role in India's economic development. India's external debt which was US \$83.8 billion in March 1991, increased over the years to reach US \$ 111.8 billion dollar in March 2004. However, external debt-GDP ratio improved from 28.7% in 1991 to 17.8 % in March 2004. In Global Development Finance 2004, the World Bank has categorized India as a less indebted country for the year 2002. In 1998, India was considered a moderately indebted country.

India's indebtedness position vis-à-vis other emerging economies has also improved over the years. In terms of absolute size of debt, India improved from third largest debtor after Brazil and Mexico in 1991 to eighth in 2002.

The share of concessional debt in the total external debt of India remained more or less constant at 35% - 37% after 2001. Most encouraging fact is that India's share of concessional debt continues to be high, particularly among the top 15 debtor countries (in fact, India's share was the highest).

The proportion of short-term debt in total external debt declined from 4.8% in March 2003 to 4.3 % in March 2004.

Table 4.2.5
International Comparison of External Debt – 2002

Country	Total external debt	Debt Sustainability Indicators			
		Debt to GNP	Debt service	Short term debt to total external debt	Concessional debt to total debt
	(US\$billion)				
					(ratio as percentage)
Brazil	227.9	52.5	68.9	10.3	1.4
China	168.3	13.4	8.2	28.5	17.8
Russian Federation	147.5	43.3	11.3	11.1	0.4
Mexico	141.3	22.6	23.2	7.0	0.9
Argentina	132.3	38.4	18.3	11.2	0.9
Indonesia	132.2	80.3	25.0	17.6	24.0
Turkey	131.6	72.7	46.8	11.5	3.5
India	104.4	20.7	14.9	4.4	38.4
Poland	69.5	37.2	22.5	12.8	9.5
Philippines	59.3	71.4	20.2	9.4	21.1
Thailand	59.2	47.6	23.1	20.1	16.6
Malaysia	48.6	54.9	7.3	17.2	6.6

In terms of composition, India's external debt has shifted in favour of private debt over the last decade. The ratio of government and non-government debt, which was roughly 60 : 40 during 1990 to 1995, declined to 40 : 60 by end-September 2004. Larger accumulation of private debt was essentially under 'NRI deposits' and 'export credit and commercial borrowings'. With the increasing importance of external debt of the non-government

variety, the share of concessional debt, although stagnant in the range of US \$ 38 – 40 billion in absolute terms, fell from 45.9 % in 1991 to 36 % in 2004.

The World Bank constituted India Aid Club in 1958 to provide financial assistance during the periods of Second Five Year Plan and Third Five Year Plan. Presently, it has been renamed as ‘India Development Forum’ which is still providing financial assistance for development Plans.

A number of countries belonging to ‘India Development Forum’ like Austria, Belgium, Canada, Denmark, France, Germany, Japan, Netherland, Norway, Sweden, Britain, and USA have provided assistance to India as a result of initiative taken by the World Bank and its associate institutions like IDA. Other important countries providing external assistance to India from time to time are Australia, New Zealand, Switzerland, USSR (now disintegrated), Bulgaria, Poland, Hungary and oil exporting countries. The USA is the single largest contributor.

Table 4.2.6

Percentage of Foreign Assistance in Various Five-Year Plans

Plan	% of Foreign sources in total outlay
First	9.64
Second	22.45
Third	28.25
Three Annual Plans	36.36
Fourth	12.92
Fifth	12.80
Sixth	7.70
Seventh	9.04
Eighth	6.61
Ninth	6.96
Tenth	1.70

As mentioned in the foregoing section, Foreign aid helps to supplement domestic savings. Besides, it also makes available

additional supplies of foreign exchange, and facilitates transfer of technology.

- The rate investment in India has substantially increased from the annual level of over 10% of the national income at the beginning of the First Plan to nearly 33 % now. Foreign assistance contributed tremendously in raising our Investment-income ratio to such a healthy stage.
- Foreign aid used to stabilize food prices and import raw materials and POL products uninterruptedly.
- Aid helps us tremendously to build up our infrastructure – power, irrigation, transport, steel production, etc.

Areas of concern

- As ratio of National Income, India's external debt had shot up from less than 10% in 1983-84 to around 35% in 1990-91. External debt rose enormously during the 60s, 70s and 80s. It recorded a growth of around 29 times from around Rs. 2591 crores in 1965-66 to Rs. 80,000 crores in 1990-91.
- More than 40% of our exports eaten up by debt servicing alone late 1980s. It is only in the mid-90s and thereafter some definitely improvements can be noticed in these respects.
- The major part of external assistance received in India has to be repaid in foreign currencies. The loan repayable in Indian rupee comprises of only 1% of total external assistance.
- Loans from the IMF and heavy dependence on the USA for external assistance are often associated with conditionality clauses just like any creditor imposes some restrictions on the debtor. IMF conditionalities cover ten major areas, viz. monetary policies, fiscal and budgetary policies, industrial and agricultural policies, foreign investment, foreign trade, external borrowings and exchange rate management.

2.9 LET US SUM UP

Indian exports cover a wide range of agricultural and industrial products as also various handicrafts, readymade garments and leather manufacturers, etc Project exports which include consultancy, civil construction and turn-key contracts have also made a significant progress in the recent years. Recently, electronic hardware and software exports have increased in a significant way mainly to the advanced countries. Foreign exchange reserves have rapidly increased in India in the post reform period due to various reasons such as Devaluation of rupee, Availability of loans from international institutions, Increased foreign investment (direct and portfolio). Foreign aid helps to supplement domestic savings. Besides, it also makes available additional supplies of foreign exchange, and facilitates transfer of technology. MNCs have more relevance in the initial stages of development of underdeveloped countries where the needed technology can be had only by purchasing it from developed countries, and where there is need for marketing of some manufactured goods in developed nations. Any more dependence on them can be very harmful in terms of costs as also political interference.

Terminal Questions :

1. Give a brief account of India's Foreign trade. Explain the major structural changes witnessed by this sector in recent times?
2. Write a critical note on India's dependence on external resources for faster economic development. Give some arguments for and against the growth of MNCs in India.

UNIT 3 – INDIAN FINANCE

Structure

- 3.0 Objectives
- 3.1 Introduction
- 3.2 Indian financial institution
 - 3.2.1 Reserve Bank of India
 - 3.2.2 Commercial Bank
 - 3.2.3 Non-banking Financial Intermediaries
- 3.3 Money and capital markets in India
 - 3.3.1 The Indian Money Market
 - 3.3.2 Capital Market
 - 3.3.3 Stock Market
- 3.4 Indian Public Finance – Fiscal Federalism
 - 3.4.1 Finance Commission
- 3.5 Problems of fiscal policy, Fiscal sector reforms in India
- 3.6 Union Budget
- 3.7 Let Us Sum Up

3.0 OBJECTIVES

This unit discuss with

- The role of different financial institutions
- The different types of financial markets
- Fiscal sector reforms in India along with fiscal policy and union budget.

3.1 INTRODUCTION

A nation embarking upon accelerated economic development and industrialization has to take planned efforts to develop an organized and healthy money market (comprising of RBI, RRBs, commercial banks, money lenders) and capital markets with an adequate institutional set-up. Market for credit (money and

capital market) and business enterprises must go hand-in-hand to ensure quick industrialization in less developed countries. The capital market serves a very useful purpose by pooling capital resources and making them available to the enterprising investors.

3.2 INDIAN FINANCIAL INSTITUTION

Indian financial institution includes RBI, Commercial Banks, RRBs, Non-banking Financial Intermediaries.

3.2.1 Reserve Bank of India

RBI is the monetary authority and central bank of the country and has been assigned wide powers and responsibilities to overview, develop and regulate the financial system.

Reserve Bank of India was established in 1935 and was nationalised on January 1, 1949. The general administration and direction of RBI is managed by a Central Board of Directors consisting of 20 members which includes 1 Governor, 4 Deputy Governors, 1 Government official appointed by the Union Government of India to give representation to important stratas in economic life of the country. Besides, 4 directors are nominated by the Union Government to represent local boards.

On July 6, 2005 RBI has constituted a new department named **Financial Market Department** for surveillance on financial markets. The Constituted new Financial Market Department will separate the activities of debt management and monetary operations in future. This department will also perform the duties of developing and monitoring the instruments of money market and also monitoring the government securities and foreign money markets. The RBI performs, apart from traditional functions, some developmental activities. These works include the function of arranging credit for agriculture (which has been transferred to NABARD), collecting and publishing the economic data, buying and selling of government securities etc. It also acts

as the representative of Government in IMF and represents the membership of India.

Section 17 authorises the bank to carry on and transact the following kinds of business:

- (1) The accepting of money on deposit without interest from, and the collection of money for the central government, the state government, local authorities, banks and any other persons.
- (2) Sections 17 (2) and 17(3) authorize the RBI to purchase, sale and re-discount bills of exchange and promissory notes of various kinds specified therein, namely commercial bills, bills for financing agricultural operations, bills for financing cottage and small-scale industries, bills for holding or trading in government securities and foreign bills.
- (3) Loans and advances to scheduled and cooperative banks: Section 17(4) enables the RBI to grant loans and advances to the scheduled banks, local authorities, state cooperative banks and state financial corporations repayable on demand or on the expiry of fixed periods not exceeding 90 days against the security of specified few.
- (4) Loans and advances to other Financial Institutions
- (5) Advances to Government and also to transact government business in India.
- (6) To issue bank notes.
- (7) To undertake transactions in foreign exchange.
- (8) To keep cash reserves of scheduled banks.
- (9) Controller of Credit.
- (10) Provisions relating to non-banking companies receiving deposits: In the public interest the RBI may, by general or special order, regulate or prohibit the issue by any non-banking institution of any prospectus or advertisement soliciting deposits of money from the public. The bank may give directions to these companies as to the particulars to be included in advertisement inviting deposits.

- To collect information as to deposits and to give directions: The RBI is empowered to direct every non-banking institution to furnish to it information or particulars relating to the deposits received by it. Such information may relate to the amount of the deposits, the purposes and periods for which they are received. The bank is also empowered to issue directions in the public interest to such institutions generally or to any such institution in particular or group of such institutions in particular on any of the matters connected with the receipt of deposits. If any institution fails to comply with any directions, the Bank may prohibit the acceptance of deposit by such institution.
- To call for information from financial institutions and to give directions.
- To conduct inspection. The RBI may, at any time, cause an inspection to be made of any non-banking institution, including a financial institution, to verify the correctness or completeness of the particulars furnished to the Bank or to obtain any such particulars, if not submitted.

(11) New guidelines for private sector banks. For establishing a new bank in the private sector, a licence from the RBI is to be obtained. The RBI is competent to exercise its discretion in the matter by prescribing any other conditions to judge the desirability of issuing a licence.

Board for Financial Supervision: RBI set up the Board for Financial Supervision in November 1994 under the RBI (Board for Financial Supervision) Regulations. The board undertakes the following tasks:

- Reviews Inspection Reports of supervised banks and financial institutions.
- Reviews monitoring by Reserve Bank with regard to bank frauds and housekeeping in public sector banks (including reconciliation of entries in inter-branch accounts, inter-bank accounts and balancing of books of accounts).

- Reviews monitoring done over all-India Financial Institutions and NBFCs over which RBI has regulatory jurisdiction.
- Suggests course of action to be taken in respect of institution specific supervisory concerns and provides guidance on regulatory and supervisory policy decisions.
- Reviews the status of supervision of urban cooperative banks.

3.2.2 Commercial Bank

Commercial banking system in India consisted of 286 scheduled commercial banks (including foreign banks) as on March 2004. Of the scheduled commercial banks, 223 are in public sector of which 196 are regional rural banks (RRBs) and these account for about 77.5% of the deposits of all scheduled commercial banks. The RRBs were specially set up to increase the flow of credit to small borrowers in the rural areas. The remaining 27 banks in the public sector (i.e., nationalized banks and SBI Group) are commercial banks and transact all types of commercial banking business.

In India, commercial banking has grown manifold since the nationalization of commercial banks in 1969. Such growth is all-round in terms of huge expansion in number of bank offices (8262 in June 1969 to 68561 in March 2003), total deposits (Rs. 4646 crore in 1969 to 12,80,853 crore in 2003), per capita deposit (Rs. 88 to Rs. 12253 during the aforesaid period), deposits as percentage of national income (15.5 % to 51.8 %), total credit disbursement (Rs. 3599 crore to Rs. 7,29,214 crore), and per capita credit (Rs. 68 in June 1969 to Rs. 7275 in March 2003).

Amongst the public sector banks, the nationalized banks group is the biggest unit with 33,090 offices, deposits aggregating Rs. 7,52,558 crore and advances of Rs. 4,10,376 crore in March 2004. The SBI and its Associates, as a group, accounts for around 34.1% of aggregate banking business conducted by the public

sector banks (excluding RRBs), and 23.8 % of the aggregate business of all scheduled commercial banks.

The RBI has recently extended the coverage of priority sector for enlarging credit services of commercial banks. Credits given to (i) non-government agencies for making houses for slum-dwellers (up to Rs. 2 lakh), (ii) farmers for purchasing field or goods carrier vehicle (iii) retailers with some exceptions and (iv) commercial institutions providing various services will also be included within the category of priority sector lending.

During the 2003-04, while the overall target fixed for priority sector lending had been met by all bank groups, shortfalls were noticed in meeting the sub-targets prescribed under priority sector lending. Within the overall target of 40% of net bank credit for domestic bank, the sub-target fixed for agriculture is 18.0% and that for weaker sections is 10%. Advances by public sector banks to agriculture at 15.4% of net bank credit in 2003-04 fell short in the sub-target by 2.6 percentage points during the year. These banks also fell short of the sub-target of 10% set for weaker sections by 2.6 percentage points.

Gross non-performing assets (NPAs) of various public sector banks were estimated at Rs. 45653 crore at the end of 1997-98, i.e., 16 % of gross advances. Gross NPAs of the nationalized commercial banks had reached a staggering Rs. 64.416 crore by March 2001. Gross NPAs of the public sector banks towards agriculture stood at Rs. 7450 crore as on that date. Continuous rise in the absolute size of the NPAs is a matter of concern. This affects circulation of investible resources. Nevertheless, NPAs is an international phenomenon. NPAs in many Asian countries have been even much higher than that in India – both in absolute terms as well as percentage of GDP. Towards the end of 2002-03, Japan had highest non-performing loans of US \$ 1260 billion, china's NPAs of US \$ 485 billion were 43 % of GDP, Malaysia's NPAs of

US \$ 40 billion were 41 % of GDP, and Thailand's US \$ 35 billion were 38% of GDP compared with India's US \$ 20 billion at 6 % of GDP. Japan's sick assets amounted to 26 % of its GDP.

Though RRBs were initially intended to support productive activities in the rural areas, with effect from March 22, 1997, the RRBs were allowed to lend outside the target group by classifying their advances into 'priority sector' and 'others'. Similarly the interest rates on term deposits offered and interest rates on loans charged by RRBs have also been freed. In June 2004, there were 196 RRBs covering 516 districts with a network of 14507 branches. 82.6% of total branches have been opened in rural areas. The rural branch network of RRBs at 12003 constitutes 36.9% of the total rural credit outlets of the scheduled commercial banks in the country. The gross non-performing assets of RRBs stood at Rs. 3200 crore, 14.4% of their total loans.

More autonomy to Public Sector Banks (PSBs)

On February 22, 2005, PSBs have been granted more freedom of action to make acquisitions of businesses, pursue new lines of business, close or merge unviable branches and take all decisions regarding HRD. The PSBs got the freedom of acquiring other state-owned and private banks, finance companies and other businesses without seeking any permission from the government. But these activities will be limited to those prescribed in the Banking Regulation Act. For using managerial and functional autonomy, the government has put four pre-conditions for banks – a track record of three years consecutive profit, capital adequacy ratio of over 9%, net non-performing assets of less than 9% and minimum owned funds of Rs. 100 crore.

3.2.3 Non-banking Financial Intermediaries

The Indian economy is going through a period of increased 'financialisation'. Extensive financial deepening has occurred and the share of assets of the financial institutions to the GDP has increased considerably. Savings rate has continuously increased, accompanied by a higher volume of financial savings, which have contributed to and resulted from greater financial deepening. Financial intermediation today is conducted by a wide range of financial institutions. New financial intermediaries have appeared while the existing ones have grown. The segment consisting of non-bank financial companies, such as equipment leasing companies, have made great strides in recent years and are meeting the diverse financial needs of the economy. In the process they have influenced the direction of savings and investment. The resulting accumulation of capital is important for our economic growth and development. Thus, both from the macro-economic perspective and the structure of the Indian financial system, the role of non-bank financial companies has become increasingly important (C. Rangarajan, 1994).

According to C. Rangarajan (1994), the Indian economy today stands, more than ever before, at a crucial turning point. The productive sectors of the economy need for their successful functioning, an efficiently operating financial system which, while transferring funds from the surplus units to deficit units does so at minimal operating costs. Efficient financial intermediation thus, has been recognized as an important factor contributing both to stabilization and economic development. Despite the overall progress made, a concern has been voiced about the viability and efficiency and the capacity of the financial system to take on larger volumes of more complex financial transactions. The reform programme, thus, is primarily designed to make the financial sector more viable, more efficient and more responsive. An impetus is being provided to improve the operational and allocative efficiency

of the financial system as a whole, by correcting many of the exogenous and structural factors affecting the performance of financial institutions. Financial sector reforms thus, should help banks and non-bank intermediaries to act as autonomous business units, fully responsible for their performance. The compulsion to cut costs, improve productivity and show better profitability will have to become the mission of the financial system in the coming years.

Non-banking financial institutions (NBFIs) play a key role in the direction of savings and investment. In fact these institutions have emerged as specialized financial institutions, which help to bridge the credit gaps in several sectors. Thus their contribution to the Indian economic growth is quite significant. For mobilization of idle and hoarded resources and for their effective channelisation into most productive uses, a vigorous growth of the non-banking financial intermediaries is essential. Since NBFIs mobilize savings, bridge credit, channelise investments, influence money market and the economy, they influence the economy and as such NBFIs need to be properly regulated, guided and be covered by monetary policy.

Classification of financial intermediaries

A satisfactory classification of financial intermediaries will vary from place to place and time to time. Generally speaking, they are grouped under five different categories:

- The banking system (central bank, commercial banks, cooperative banks, etc).
- Other depository organizations (savings and loan associations, credit unions, etc).
- Insurance organizations (life insurance, general insurance, property insurance, government insurance, pension funds, etc).
- Specialised development financial institutions.

- Other financial intermediaries (investment and finance companies, mortgage companies, land banks, security brokers and dealers, development banks, etc).
- Personal trust department (including common trust funds).

Non-banking financial intermediaries comprise –

- Development Financial Institutions
- Insurance Institutions
- Pension Funds
- Stock Exchanges
- Money Lenders
- Indigenous Bankers
- Merchant banks
- Other Financial Intermediaries.

Money lenders and indigenous bankers who constitute the important elements of the unorganized sector, indulge in trading and other non-banking activities. The efforts made by the RBI to integrate them with the organized sector have failed as indigenous bankers and moneylenders are not willing to give up their other activities and surrender directly to the control of the central bank. In the 1930s, the organized sector was estimated to cover only about 10% of the economy, now the proportion has increased to over 50%.

The most likely conditions about the reserve ratio and return flow of the NBFIs appear to indicate that the latter can expand their loans and investments by an amount roughly equal to the increase in their deposit liabilities. They are likely to have a low reserve ratio and low return flows, for the probable value of the NBF multiplier in the most countries is approximately between 0.8 and 1.3. However, the main threat to the growth of the NBFIs is supposed to come from credit expansion. In times of stringent monetary policy they may be able to attract more deposits than banks by raising their rates of interest. The banks may not be in a position to pay these higher rates of interest because of statutory

restrictions, and the monetary authority may not be able to restrict the credit issued by the NBFIs.

Expansion of Non-bank financial companies

The scope and activities of the non-bank financial companies have significantly expanded over the years, especially so in the decade of 1980s. The number of non-bank financial companies which stood at 7063 in 1981 increased nearly by four and half times to 31744 by the end of December 1992. The distribution, however, is highly skewed in terms of their deposits as well as net owned funds.

A disturbing feature of the non-banking financial companies in India has been the conspicuous lack of transparency of operations and proper financial disclosure. Less than one-third non-bank financial companies are regular in the submission of periodical returns to their designated regulatory authorities. Several residuary non-bank financial companies which mobilize deposits from a large number of small and uninformed depositors have been found to be operating with meager capital and some even with a negative net worth. Most of these companies have not designated their banks as stipulated by RBI. Many of them have been found to be issuing misleading advertisements, attracting deposits. Punitive action against unscrupulous non-bank financial companies has often been constrained by inexplicit legal provisions and inadequate regulatory framework.

3.3 MONEY AND CAPITAL MARKETS IN INDIA

The proper development and growth of financial markets plays a vital role for the fast growth of industry and economy. A well-organised and well-regulated financial market, especially capital market, imparts the essential attributes of liquidity, marketability, safety and price continuity to the long-term securities. There has been an accelerated growth of the long-term capital market in India in the post-independence period.

Financial Market in India
Organised Sector

Money Market		Capital market
1. Reserve Bank of India	Non-banking financial institutions	Financial Institutions
2. Commercial banks		
i. Indian banks		
a. Public sector banks	a. Financial intermediaries	a. Central Level
b. Private banks		
ii. Foreign banks	LIC	IFCI
3. NABARD	UTI	IDBI
4. RRBs	GIC	ICICI
5. Cooperative banks		IRBI
a. State level cooperative banks	b. Investment companies	SIDBI
b. Central level cooperative banks		SCICI
c. Primary cooperative banks	c. Leasing Cos.	
6. Other (exchange banks, discounts houses, Acceptance houses, Bill Market etc.)		b. State Level
	d. Facilitating Agencies	SIDC
		SFCs
	e. Stock Markets	
		c. Specialized institutions
		SEBI
		TFCI
		RCTFC
		TDICI

Krishna and Narta, 1998.

A money market is a mechanism through which short-term funds are loaned and borrowed and through which a large part of the financial transactions of a particular country or of the world are cleared. Broadly conceived, it includes the entire mechanism employed in financial business of all types. In the narrow sense, in which the term is generally used, however, a money market includes only dealings in more or less standardized types of loans,

such as call loans and in credit instruments, such as acceptance and treasury bills, in which personal relations between lender and borrower are of negligible importance. In this sense, a money market is distinct from, but supplementary to the commercial banking system.

In developed money markets, large varieties of sub-markets have been organized for specialized dealings in almost all sources of loanable funds. Some of these markets, for example, the call money market, short-term market, capital market, stock market or bond market, commercial bill market, treasury bill market, discount market, etc are highly developed and well organized. The larger the number of sub-markets, the broader and more developed is the structure of the money market.

Money markets that are undeveloped generally lack such of a variety of sub-markets.

Importance of Money market

- Money market is an important source of financing trade and industry through bills, commercial papers, etc. It influences availability of finances both in the national and international trade.
- Money market facilitates effective implementation of monetary policy of the central bank of a country.
- Money market serves as an important guide to the government in formulating, revising and implementing its monetary policy.
- Availability of funds in the money market and money market interest rates have an impact on interest rates and resource mobilization in capital market.

3.3.1 The Indian Money Market

The Indian money market is divided into organized and unorganized markets. The unorganized money market consists of indigenous bankers and money lenders. The unorganized money market differs from organized market in many respects like organization, operations, interest rate structure, etc. The indigenous

bankers and money lenders are active in the informal sector, in the small town and villages, in some pockets of the big cities where a farmer, artisans, small traders does not have an access to the modern banks.

The 'black market money' or 'unaccounted money' is made up of accumulated gains, largely of illegal transactions, which cannot be brought into account books or into bank accounts.

A major characteristic of the Indian money market each year is the pronounced swing from 'busy' to 'slack' times and vice versa. The RBI provides accommodation to the commercial banks, especially during the busy season; and the treasury bills issued by the RBI provide an important outlet for the surplus funds of the commercial banks during the slack season. In the same way, other financial institutions, such as hire-purchase companies, insurance companies, etc place their surplus funds with commercial banks or cooperative banks in short-term deposits; and they borrow from the commercial banks in case of need. The noteworthy feature is that one does not find a clear-cut demarcation of functions among the institutions comprising of the organized money market in India, as one finds, for example, among the financial institutions in the U.K., where the commercial banks, discount houses, acceptance houses, etc. perform a highly specialized set of functions, and their spheres of operations are well defined and coordinated (Vasant Desai, 2004).

In India, there is a considerable overlapping of functions among the institutions comprising the organized money market, which perhaps is the outcome of the peculiar circumstances under which they have developed.

The Indian banking structure possesses a heterogeneous mass of indigenous banks, joint stock banks and cooperative banks as its base layers; the highly organized, developed and nationalized

banks, state bank as its middle layer, and a state-owned central bank, namely the RBI, as its apex.

The organized sector is principally composed of the commercial banks, the cooperative banks and the land mortgage banks. Considering the continental character of the country, the banking development is most inadequate for the needs of trade and industry, largely because of the hoarding habit among the people. J.S.G. Wilson remarks: 'The hoarding habit appears to provide an almost bottomless pit for the absorption of gold and silver'.

With a view to strengthening the organized money market in India, new institutions have been established and consolidated to either lend on long-term basis or regulate credit in a prescribed manner. The new institutions which have come up after independence are the Industrial Finance Corporation (1948); National Industrial Development Corporation (1954); Industrial Credit and Investment Corporation of India Ltd. (1955); State Financial Corporations (1951); National Small-scale Industries Corporations (1955); Agriculture Refinance and Development Corporation; Unit Trust of India (1964); and Industrial Development Bank of India (1964), which incorporates the Refinance Corporation and the Industrial Reconstruction Corporation (1971).

The Indian Money Market chart

Three Broad components of Indian money market:

I. Unorganised sector comprising --

- Indigenous bankers.
- Money lenders
- Nidhi's
- Chit Funds.

II. **Cooperative sector.**

III. **Organised Sector comprising—**

- RBI
- Public sector banks
- Private Sector Banks (non-scheduled banks and Scheduled banks – Foreign banks and Indian banks).
- Development banks and other financial institutions – LIC, UTI, IFC, IDBI.
- DFHI Ltd.

Weaknesses of Indian Money market

- Indian money market is relatively unorganized, disintegrated, narrow and shallow. There is no denying the fact that over the years Indian money market has gained a lot of strength. The landmark years in the development of Indian money market since 1935 (when the RBI came into existence) were commencement of planning process in 1951, nationalization of banks in 1969, setting up of various committees, such as, Sukhamoy Chakaraborty Committee and Vaghul Working Group in 1982 and 1986 and subsequently, submission of their reports in the following years, setting up of Discount and Finance House of India Ltd (DFHI) in 1988, Securities Trading Corporation of India (STCI) in 1994, and commencement of liberalization and globalization process in 1991. The relatively weak areas of the Indian money market may be noted as follows:
- Existence of unorganized money market, lack of integration, non-emergence of national market, disparity of interest rates, limited bill market, overall shortage of funds in money market, seasonal shortage of funds, interest rate fluctuations, inefficient and inadequate banking facilities, limited supply of short-term instruments, limited foreign funds, restricted secondary market, etc.

3.3.2 Capital Market

In a very broad sense, capital market includes the market for short-term funds. H.T. Parikh has referred to it as, 'By capital market, I mean the market for all the financial instruments, short-term and long-term as also commercial, industrial and government paper'.

In the words of Goldsmith, 'capital market of a modern economy has two basic functions: first the allocation of savings among users and investment; second the facilitation of the transfer of existing assets, tangible and intangible among individual economic units'.

Characteristics of Indian Capital Market

Like money market, the capital market in India is also divided into the organised and unorganized sectors. Indigenous bankers and moneylenders constitute the unorganized sector of capital market. The organized capital market consists of non-banking institutions and public financial institutions. The development banks along with finance provide consultancy, technical know-how and training i.e, finance and promotion simultaneously. Thus development banks are considered as 'gap fillers'.

The amount of capital raised from the market has grown manifold, particularly during the last decade or so. Very recently, capital market has also attracted a sizeable amount of foreign portfolio investment. Consequently, capital market has emerged as the major contributor to the growth of foreign exchange reserves of the country.

There is no denying the fact that Indian capital market is not as strong and broad-based as it was the case with the developed countries. The capital market has become almost synonymous with equity market. The debt market which is many times bigger than

equity market in developed countries (U.S., U.K. or Japan) has hardly developed in India.

The Indian capital market with over 7500 listed companies and 23 stock exchanges is second in size only to that of the USA, in terms of availability of industrial securities. The Indian capital market offers good potential for further expansion in terms of absorption of large capital flows. As per the review published by Fortune International in its Autumn Special 1992 number, the Indian capital market has appreciated by 44% in US dollar terms, an appreciation rate which was second only to that of the Philippines at 71%.

In India, the market capitalization of equity shares quoted on stock exchanges is currently estimated to be around 9 % of GNP. This is a relatively low figure by international comparison. The share of market capitalization in GNP is 160% in Japan, 65 % in USA, 122 % in UK, 42% in Taiwan, 95% in Malaysia and 23 % in South Korea.

The average price-earning (PE) ratio in India is currently in the range of 9 to 10 compared to 91 in Japan, 67 in South Korea, 32 in Malaysia and 15 in USA and Hong Kong. The lower size of market capitalization and PE ratio in India are thus indicative of the potential for further development of the capital market in India.

Indian capital market had been virtually kept insulated from global capital markets and cross-border movement of capital for long times, as a matter of policy. Economic liberalization measures adopted in the 1990s have made the economy more open to the international markets. Access to India's markets has been made easier for foreign capital, technology and goods.

In the past, overseas investments had been mainly in the shape of direct foreign investment in specific approved industrial ventures. The capital market was open to non-resident Indians and, more recently, to overseas corporate bodies of Indian nationals in a restricted way. In conformity with various policy measures taken

during the past few years, which cover India's external trade, collaboration and technology policies, financial restructuring, etc, the government has since announced a new policy, welcoming foreign institutional investors to invest in the Indian capital market, both primary and secondary (Vasant Desai, 2004).

The capital market in the 1990s has magnificently responded to meet the ever-growing capital needs of both the private and public sectors. Despite the ten-fold increase in the total capital raised from the market in the short span of seven years by the private sector alone, the total mobilization was only 5% of the net household savings.

In South Asia, India is the only capital market capable of growing into an international centre with its inherent strength that very few markets possess. Both Singapore and Hong Kong are highly developed, but they do not possess inherent strength.

The Abid Hussain committee on development of capital market has suggested creation of two-tier stock exchanges along with a number of fiscal measures to streamline the stock market for bringing stability and restoring investors' confidence.

- It has recommended long-term policy measures to bolster the capital market so that industries with a proven track record could meet their financial needs from the growing capital market.
- The public sector financial institutions could then be made to cater to the needs of the newly emerging companies for survival and sustenance during their nascent phase.
- The committee recommended that all the companies should go through the registered merchant banks when they went public. The merchant banks should scrutinize the new companies entering the capital market, besides certifying that they were viable. This would act as a safeguard on the listing of new companies.

- The Committee recommended simplification of procedures involved in transferring of shares, which are considered to be complicated and cumbersome at present.
- The Committee also suggested that guidelines be evolved for the proper utilization of mutual funds for equity raising instead of buying debentures as had been done by the State Bank of India and the Canara bank in some areas.

In India, the government securities market is confined only to banks and institutions and to some extent provident funds. Bulk of the investment in government securities has been to meet the statutory requirements. A genuine government securities market could not be developed in India until recently due to the fact that yields of government securities were not market related. With the increasing alignment of yield rates on government securities with market rates, government securities are being absorbed even by corporate investors who have temporary liquid funds to manage.

The stock market is an integral part of the organized capital market. It facilitates in the sale of initial and further issues and subsequently provides liquidity to the securities subscribed by the individuals and institutions. It very important to note that for effective mobilization of funds, it is necessary to protect the interests of the investors. Keeping in view this, the government of India passed various legislations like Companies Act, 1956; Securities Contract (Regulation) Act, 1956; Capital Issue (Control) Act, 1947 and Securities Contract (Regulation) Rules 1957 and Securities Exchange Board of India Act 1992 so as to build the confidence in the investors. The statutory framework of securities market plays a vital role in the transfer process of resources from the investors to the entrepreneurs, as investors also demand legislative protections. Through these regulatory measures, the government can also direct the investments in a planned manner (Krishan and Narta, 1998).

3.3.3 Stock Market

Even as a debate continues over the relative advantages of the stock market over banks in financing investments on the one hand, and of the corporates, preference for internal resources versus external sources on the other, and the stock market's ability to monitor corporate managements due to several factors, developing countries have been advised by multilateral bodies to foster stock markets. Besides allocating resources efficiently, developing countries have been told that stock markets will enable them to implement their privatization programmes and attract portfolio capital flows. Foreign portfolio investments are in turn likely to deepen the stock markets and contribute to greater stability, especially investment by investment funds that specialize in emerging markets and are backed by international experience and extensive research. Their operations are expected to enable corporates to raise resources cheaply by pushing up price-earning ratios. In order to attract foreign investors, while business entities are forced to improve accounting and reporting standards, authorities are expected to upgrade the trading and delivery standards, which again help improve the functioning of stock markets. The emphasis on portfolio capital flows is also in line with the official development assistance Yielding place to flows on private account (K.S. Chalapati Rao, 2000).

From the beginning of the early eighties, along with liberalization and the consequent enhanced role assigned to the private sector, India too embarked upon giving prominence to the stock market. While during the eighties financing the private sector was the driving force, privatization of public enterprises and attracting foreign portfolio capital additionally came to the fore during the nineties. The experience promoting stock markets has been a mixed one. The variety of scams the Indian stock market

faced during the nineties are so well known that they hardly need to be elaborated here.

On the eve of the Budget 1999-2000, the BSE Sensex closed at 3234. It was 5741 on February 28, 2000 – an increase of 77%. In between, Sensex reached an all-time high of 5151 on October 11, 1999 and scaled the further peak of 6160 on February 14, 2000. The main reasons for this increase, as noted by the Economic Survey 1999-2000, are: phenomenal spurt in information technology stocks in major markets abroad; reduction of long term capital gains tax from 20 to 10 % for resident Indians; exemption from income tax for all income received in the hands of investors from mutual funds introduced in the Budget 1999-2000; and improvement in the overall economic performance. The Survey also acknowledged the contribution of foreign institutional investors, albeit indirectly, to this buoyant mood. Probably acknowledging their role, the Budget 2000-2001 proposed to raise the upper investment limit for FIIs in a single company from 30 to 40 %. The government, however, admitted the increasing volatility in the stock market and enumerated the additional steps taken by the Securities and Exchange Board of India (SEBI) to contain it and also conceded that the recovery had much to do with the ‘golden triangle’ comprising of information technology companies, pharmaceuticals and consumer non-durables (also known as Fast Moving Consumer Goods -FMCG). The Survey further noted that there was a substantial increase in resource mobilization by mutual funds and the primary market was on the path of recovery (K.S. Chalapati Rao, 2000).

Mutual funds emerged following the concessions offered by the budget. Since most of the private sector mutual funds are under the direct influence of FIIs, it can be expected that stock prices would be affected not only by net FII investments but also by the size of funds under control of their local affiliates. Even local funds have started following the FII investment pattern.

Table 4.3.1
Assets under the Management of Different Categories of Mutual
Funds (Rs. Crores)

Category	At the end of		Share in Total (%)	
	1998	Feb.2000	1998	Feb 2000
A. UTI	54,339	69089	82.63	64.54
B Bank sponsored MFs(6)	4504	8384	6.85	7.83
C. Institutions (4)	1993	3486	3.03	3.26
D. Private Sector incl.	4924	26084	7.49	24.37
-- Indian Companies (5)	776	2697	1.18	2.52
--JVs: Predominantly Indian (7)	2163	9944	3.29	9.29
--JVs: Predominantly Foreign (9)	1985	13443	3.02	12.56
Total (A+B+C+D)	65,760	107,043	100.0	100.0

Note: Figures in brackets indicate the number of funds; JVs : Joint ventures.

The price volatility in the secondary market has been shown in the table given below:

Table 4.3.2
Share Price Volatility at BSE

Year	% of days on which the BSE National Index Experienced to the number of Days traded	
	A day's High and Low differed by 3% or more	A day's Close was lower or higher by 3% or more over the previous close
1991-92	4.83	10.05
1992-93	8.56	14.06
1993-94	1.40	7.80
1994-95	0.00	0.43
1995-96	1.75	1.73
1996-97	6.69	4.96
1997-98	3.69	4.51
1998-99	16.46	10.70
1999-00	25.50	12.75
Jan.-Mar 2000	46.77	25.81

The volatility seems to be related to at least four factors. One, market is becoming increasingly polarized. Studies at the Institute for Studies in Industrial Development (ISID) identified the FIIs' strategy of converging on information technology (IT), consumer non-durables (FMCG) and pharmaceuticals in 1998 was mainly responsible for the emergence of what is now being officially referred to as the 'golden triangle'. Simultaneously, share prices of other manufacturing sectors, especially of basic and capital goods industries, suffered serious reversal. The extent of variation in valuation can be gauged from the fact that in mid-February 2000, of the 304 product/activity groups for which price-earning (P/E) ratios are available, in case of six, the ratio was more than 100 and in case of another five it was more than 50. For as many as 196, it was less than 10. The six with the highest P/E ratios are : entertainment and Electronic media (765); Large computer Software Companies (431); Magnetic Tapes and Cassettes (281); computer Software Converts (161); large Telecommunication Equipment (128); and Computer Education (125). This skewed valuation was accompanied by high concentration in trading to such an extent that computer software and hardware companies accounted for nearly 35% of turnover in 1999. Together with pharmaceuticals, media and FMCG, computer industry claimed almost 60% of trading values at BSE (K.S. Chalapati Rao, 2000).

Robust growth in India stock market

Stock exchange or share market plays a dominant role in mobilizing resources for corporate sector. It constitutes an organized market for exchanging securities and shares. There are 24 Stock exchanges in the country, 20 of them being regional ones with allocated areas. Three stock exchanges – National stock Exchange (NSE), over the Counter Exchange of India Ltd. (OTCEI) and Inter-connected Stock Exchange of India Limited (ISE) have mandate to have nationwide trading network. The Nifty index which shows the biggest 50 liquid stocks in the country,

experienced a sharp growth in market capitalization from Rs. 285007 crore in 2001 to Rs. 902831 crore in 2004.

Table 4.3.3
Growth in stock market during last few decades

	1961	1971	1981	1991	2000	2002	2003
No. of stock exchanges	7	8	9	22	23	23	23
No. of listed companies	1203	1599	2265	6229	9871	9644	9413
Market capitalization (Rs. Crore)	1200	2700	6800	110279	11,92,630	7,49,248	6,31,921

On March 10, 2006, BSE's market capitalization stood at Rs. 28.54 lakh crore, i.e, a growth of more than 450 % in preceding two years.

The number of stock exchanges increased from 11 in 1990 to 23 by March 2003 with 9, 413 listed companies. The trading platform of these stock exchanges was accessible to 9519 members spreading over 400 cities. All the stock exchanges are now fully computerized and offer 100% on-line trading.

The trading volumes on stock exchanges have grown phenomenally during the last and half decade. The average daily turnover grew from Rs. 15 crore in 1990 to Rs. 12000 crore in 2000. One-sided turnover on all stock exchanges was more than Rs. 10,00,000 crore during 1998-99, Rs. 20,00,000 crore during 1999-2000 and little less than Rs. 30,00,000 crore during 2000-01. The turn over ratio (i.e, the volume of trading in relation to the size of the market) increase in a big way after introduction of screen based trading system by the NSE.

Securities markets' performance in terms of information-processing, risk management and liquidity-provision functions

improved further in 2005. In December 2005, there were 2540 companies, where stock market trading took place on at least two-thirds of the days. These companies had a market capitalization of Rs. 24.7 lakh crore or \$ 550 billion. Household and institutional investor participation increased through growing confidence in the transparency and robustness of the market design, which was put in place over the period 1993-2001. Such participation was also assisted by stock market index returns of 11 % in 2004 followed by 36 % in 2005 (Varshney and Mittal, 2006).

By 2005-06, the turnover ratio had improved significantly in bullish stock market. Market capitalization had also gone up to US \$ 449,884 million by mid-2005 which was 65% of GDP. The trading intensity of Indian stock exchanges is impressive by world standards. Among the biggest exchanges, measured by the number of trades per calendar year, the National Stock Exchange (NSE) retained rank 3 in years 2002 to 2005. The Bombay Stock Exchange (BSE) climbed from rank 7 to rank 5 between 2002 and 2003.

3.4 INDIAN PUBLIC FINANCE – FISCAL FEDERALISM

Among the important fiscal issues the most important in context of obtaining federal finance system in economy is the issue relating to the centre-states financial relations.

India owns federal finance system. This system comprises two essential components. One is about the division of powers between the union and the states in respect of raising and disbursing of public funds. The second relates to the transfer of funds from the centre to the states. This takes place through three channels. One is the transfer of a part of the proceeds of certain taxes, namely union income tax, central excise, etc., from the union government to the states, and grants to state in need of assistance. These are looked after by a Finance Commission appointed at least every five years. Two, the government of India gives additional

grants and loans to states to deal with problems which could not be anticipated by the finance Commission, being non-plan expenditure. These are called discretionary transfers. The third type of transfer takes place via the Planning Commission as plan-assistance for plan projects.

The transfer of resources from the centre to the states as provided in the constitution as also the actual working of this aspect of federal finance have been the subject of much-heated controversy. Quite often different states have expressed strongly about it and have pleaded for changes in the scheme of things with a view to ensuring larger funds for them. A case is also sometimes made against too much dependence of the states on the centre.

The major irritants in centre-state relations can be listed as follows (E. Chandran, 1989):

- Inadequate devolution of taxes levied and collected by the Union government, thereby reducing the finances available for state activities within their sphere of responsibility.

A major debate of the day on fiscal federation in the Indian context is that taxation powers contained in the union list and the state list focused on the fact that major and elastic sources of tax revenue belong to the centre, while relatively inelastic sources of revenue come under the purview of state governments.

- Dependence of the state on the Union government for plan grants, loans and other ad-hoc grants, and their general inadequacy from the point of view of state's developmental responsibilities.

It is widely debated that the centre enjoys almost unlimited powers to borrow from internal and external sources while the borrowing powers of the states are subject to various restrictions.

Contrary to the limited resource base, the expenditure requirements of state governments continue to mount and they are confronted with a severe resource constraint in meeting social obligation and economic necessity.

- Compulsory submission of the state-five-year plans, including the items within the sphere of their own responsibility, to the Planning Commission created by the Union government and interference and control by the latter over the plans of individual states.
- Inclusion in the concurrent list of many items which properly belong to the sphere of state responsibilities and the overriding position of the legislation passed on these subjects by Parliament without taking into account the view of state legislatures and governments.

While the irritants are real, all the irritation is not based on reality. India is one nation, which is a union of states; and while the states have their autonomy, they are also members of the Union. There can be no wholesale transfer of legislature, financial and administrative powers from the Union to the states.

Suggestions are therefore thrown to increase the revenue-raising power of the states, rather than raising the amount of transferred resources. The Finance Commission and the Planning Commission adopted, from time to time, modified formula to improve resource flow between centre and states. However, the regional political parties feel the necessity of a much more clear-cut division of functions and responsibilities between the Union and state government, and national and state legislatures, than we have the present constitution.

Apart from devolution to the states of a whole of centrally levied and collected taxes which is determined by the Finance Commission, they also recommend differential grants to individual states based on the outmoded and universally criticized revenue-gap formula, which may be replaced by the fiscal-deficiency formula now becoming so popular with economists. These grants should become a part of the funds to be kept aside from the national totality of financial resources for implementing an agreed national minimum equalization programme among the different states. Such a programme should cover both administrative efficiency and basic minimum needs for human resource

development. The total set aside for this purpose as a share of the national revenue resource should be determined by consensus among the states as a whole and the Union government, while its distribution among the individual states should be determined on the basis of the recommendation of the Finance Commission.

The Planning Commission gives grants and loans to the states, for financing their plan outlays not covered by the states' own resources. The distribution of this amount among the different states was determined by the Gadgil formula till Seventh Plan, which gave no discretion to the Planning Commission and covered 90% of the total. The Commission, however, could use its own discretion in determining the distribution of the remaining 10 %, which gives rise among the states, both recipients and non-recipients, to a feeling of interference in their plan priorities.

It can be noted that before the Fourth Five Year Plan, there was no certain formula for determining the amount of assistance. A formula was prepared in the Fourth Five Year Plan for this purpose and it was called as the 'Gadgil Formula'. This formula provided a basis for the transfer of assistance to the states. According to this formula, the distribution of the total assistance among the states was done on the following basis:

Table 4.3.4

Formula used for distribution of the total assistance among the states

Bases	Weight
1. Population	60%
2. Per capita Income	10%
3. tax Efforts	10%
4. On going Irrigation and Power Projects	10%
5. Special Problems	10%
Total	100%

This formula was used in the fourth and fifth five year Plan for transferring financial assistance to the states. During the discussions on the fifth five-year Plan, many Chief Ministers of the

States demanded modifications in this formula. The first modification in the formula was made in 1990 in which current projects were associated with per capita income getting 20% weightage. This modification was applied in Sixth Plan, Seventh Plan and 1990-91 Annual Plans.

In October 1990 National Development Council remodified the formula for the second time, which was as follows:

Bases	Weight
1. Population	55%
2. Per capita Income	
a. Deviation method	20%
b. Distance method	5%
3. Financial Arrangement	5%
4. Special Development Problems	15%
Total	100%

The above-modified formula was used only for the Annual Plan of 1991-92 for giving the assistance to the states by the centre. The Planning Commission under the leadership of the immediate Vice-Chairmen of the Commission, Mr. Pranav Mukherjee, constituted a committee for re-considering the modified Gadgil formula on September 10, 1991. The current formula, which was adopted by the National Development Council after accepting the modifications suggested by the Mukherjee Committee in the meeting held on September 23-24, 1991, is as follows:

Bases	Weight
1. Population (Census of 1971)	60%
2. Per capita Income	
a. Deviation method	20%
b. Distance method	5%
3. Performance	7.5%
a. Tax efforts	
b. Financial management	
c. Progress in the form of national objectives	
4. Special Development Programmes	7.5%
Total	100%

Mukherjee formula was applied in the Eighth Plan for transferring central assistance to states for non-specified heads. For specified heads, it was decided to continue Modified Gadgil Formula.

3.4.1 Finance Commission

Finance commission is constituted to define financial relations between the centre and the states. Under the provision of Article 280 of the constitution, the President appoints a Finance Commission for the specific purpose of devolution of non-plan revenue resources. So far 12 Finance Commissions were constituted to make recommendations on the following:

- The distribution of net proceeds of taxes to be shared between the union and the states and the allocation of share of such proceeds among the states.
- The principles which should govern the payment of grants-in-aid by the centre to the states.
- Any other matter concerning financial relations between the centre and the states.

Table 4.3.5

Components of Statutory Devolution under the last five Finance Commission (Rs. In crore)

Finance Commission	Tax Devolution	Total Grants	Total Devolution
V	3590 (88)	490 (12)	4080 (100)
VI	6940 (80)	1750 (20)	8690 (100)
VII	18810 (97)	530 (3)	19340 (100)
VIII	33130 (93)	2390 (7)	35520 (100)
IX	87880 (83)	18160 (17)	106040 (100)
X	206340 (99)	20300 (9)	226640 (100)
XI	376318 (86.)	58587 (13.5)	434905 (100)

Note : figures in brackets represent the percentage

Fiscal Dependability of states

The impact of Finance Commission awards on state finances could be gauged from the extent of the support received by states in financing their expenditures. Between the 1980s and the 1990s, the share of resource transfers under the Finance Commission has shown declining trend from an average of 15.1% to 14.2 % respectively. The deterioration was more pronounced in the last part of the 1990s. While there was slowdown in the resource flow from the centre under the Finance Commission award, there is not much improvement in the resource generation by the states of their own leading larger dependence of the states on central resources for budgetary operation. The growth in states own tax resources has remained around 15% on an average both during the 1980s and 90s and their share in total receipts has also remained constant around 61% on an average for the 1980s and 1990s.

The inter se distribution of central resources under the Finance Commission awards reveal that the transfer is more in favour of lower income states both in the share of central taxes and the release of grants-in-aid. This is in accordance with the criteria adopted by the successive Finance Commissions in the inter-se distribution of central devolution and transfers. In the case of higher income states, there has been consistent decline both in taxes and grants-in-aid, while for middle income states their share had shown varying proportion under various finance commission awards. The special category states, as customary, have been receiving higher share in grant-in-aid, while their share in taxes were lower than those of lower, middle and higher income group. This factor could also contribute to the wide disparity in the fiscal performance of the states. Nevertheless, this trend has been checked, if not reversed, in

the Twelfth Finance Commission's formula of resource distribution.

Table 4.3.6
Category wise Distribution of central transfers under Finance
Commission award

Category of states	High income states	Middle income states	Lower income states	Special category states
A. Taxes and duties				
Eighth	19.19	23.65	16.73	7.58
Ninth	14.81	30.66	41.67	12.86
Tenth	13.13	29.23	44.17	13.45
Eleventh	9.74	29.19	53.77	7.30
B. Grant-in-Aid				
Eighth	7.64	22.22	28.10	46.07
Ninth	9.13	11.89	61.21	22.95
Tenth	12.03	21.48	33.86	32.47
Eleventh	8.43	17.07	20.93	47.29
C. Total				
Eighth	13.20	29.98	42.76	27.53
Ninth	12.54	26.75	45.76	14.96
Tenth	13.05	21.93	43.24	15.16
Eleventh	9.63	27.56	49.33	13.48

High income states : Gujarat, Haryana, Maharashtra, Punjab, and Goa.

Middle income states : Andhra Pradesh, Karnataka, Kerala, Tamil Nadu and Eest Bengal.

Lower income states : Bihar, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh.

Special category states : Arunachal Pradesh, Assam, Himachal Pradesh, Jammu and Kashmir, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.

Recommendations of the Twelfth Finance Commission (TFC)

Dr. C. Rangarajan was the chairman of the TFC. The TFC emphasized on 'equity, efficiency and fiscal prudence while working out the formula for resource allocation to centre and states during 2005-2010.

Restructuring Public finances

- Centre and states to improve the combined tax-GDP ratio to 17.6% by 2009-10.
- Combined debt-GDP ratio, with external debt measured at historical exchange rates, to be brought down to 75% by 2009-10.
- Fiscal deficit to GDP targets for the Centre and States to be fixed at 3%.
- Revenue deficit of the Centre and states to be brought down to zero by 2008-09.
- Interest payments relative to revenue receipts to be brought down to 28% and 15% in the case of the centre and states, respectively.
- States to follow a recruitment policy in a manner so that the total salary bill, relative to revenue expenditure, net of interest payments, does not exceed 35%.
- Each state to enact a fiscal responsibility legislation providing for elimination of revenue deficit by 2008-09 and reducing fiscal deficit to 3% of state Domestic Product.
- The system of on-lending to be brought to an end over time. The long term goal should be to bring down debt-GDP ratio to 28% each for the Centre and the States.

Sharing of Union tax revenues

- The share of states in the net proceeds of shareable central taxes fixed at 30.5%, treating additional excise duties in lieu of sales tax as part of the general pool of central taxes.

Share of states to come down to 29.5%, when states are allowed to levy sales tax on sugar, textiles and tobacco.

- In case of any legislation enacted in respect of service tax, after the notification of the eighty eighth amendment to the Constitution, revenue accruing to a state should not be less than the share that would accrue to it, had the entire service tax proceeds been part of the shareable pool.
- The indicative amount of overall transfers to states to be fixed at 38% of the centre's gross revenue receipts.

Local Bodies

- A grant of Rs. 20000 crore for the Panchayati Raj institutions and s. 5000 crore for urban local bodies to be given to states for the period 2005-10.
- Priority to be given to expenditure on operation and maintenance (O&M) costs of water supply and sanitation, while utilizing the grants for the Panchayats. At least 50% of the grants recommended for urban local bodies to be earmarked for the scheme of solid waste management through public-private partnership.

Calamity Relief

- The scheme of Calamity Relief Fund (CRF) to continue in its present form with contributions from the centre and states in the ratio of 75:25. The size of the Fund worked out at Rs. 21333 crore for the period 2005-10.
- The outgo from the Fund to be replenished by way of collection of National Calamity Contingent Duty and levy of special surcharges.
- The definition of natural calamity to include landslides, avalanches, cloud burst and pest attacks.
- Provision for disaster preparedness and mitigation to be part of state plans and not calamity relief.

Grants-in-aid to States

- The present system of central assistance for State Plans, comprising grant and loan component, to be done away with, and the Centre should confine itself to extending plan grants and leaving it to states to decide their borrowings.
- Non-plan revenue deficit grant of Rs. 56856 crore recommended to 15 states for the period 2005-10. grants amounting to Rs. 10172 crore recommended for the education sector to eight states. Grants amounting to Rs. 5887 crore recommended for the health sector for seven states. Grants to education and health sectors are additionalities over and above the normal expenditure to be incurred by states.
- A grant of Rs 15000 crore recommended for roads and bridges, which is in addition to the normal expenditure of states.
- Grants recommended for maintenance of public buildings, forests, heritage conservation and specific needs of states are Rs. 500 crore, Rs. 1000 crore, Rs. 625 crore, and Rs. 7100 respectively.

Fiscal reform facility

- With the recommended scheme of debt relief in place, fiscal reform facility not to continue over the period 2005-10.

Debt relief and corrective measures

- Central loans to states contracted till March 2004 and outstanding on March 31, 2005 amounting to Rs. 1,28,795 crore to be consolidated and rescheduled for a fresh term of 20 years, and an interest rate of 7.5 % to be charged on them. This is subject to enactment of fiscal responsibility legislation by a state.

- A debt write-off scheme linked to reduction of revenue deficit of states to be introduced. Under this scheme, repayments due from 2005-06 to 2009-10 on Central loans contracted up to March 31, 2004 will be eligible for write-off.
- Central government not to act as an intermediary for future lending to states, except in the case of weak states, which are unable to raise funds from the market.
- External assistance to be transferred to states on the same terms and conditions as attached to such assistance by external funding agencies.
- All the states to set up sinking funds for amortization of all loans.
- States to set up guarantee redemption funds through earmarked guarantee fees.

Others

- The Centre should share 'profit petroleum' from New Exploration and Licensing Policy (NELP) areas in the ratio of 50:50 with states where mineral oil and natural gas are produced. No sharing of profits in respect of nomination fields and non- NELP blocks.
- Every state to set up a high level committee to monitor the utilization of grants recommended by the TFC.
- Centre to gradually move towards accrual basis of accounting.

For the health sector, a grant of Rs. 5887 crore would be given to 7 states viz. Assam, Bihar, Jharkhand, MP, UP, Uttaranchal and Orissa. As already mentioned, TFC has recommended that all loans up to March 2004 would be consolidated and poor states would be charged interest at the rate of

7.5% with the repayment period extended up to 20 years, Assam like many other states, will be benefited from the recommendation.

Table 4.3.7
Horizontal Tax Devolution formula

Criterion	Weight (%)	
	11 th Finance Commission	12 th Finance Commission
Population	10.0	25.0
Distance	62.5	50.0
Area	7.5	10.0
Tax Effort	5.0	7.5
Fiscal Self-reliance	7.5	7.5
Infrastructure	7.5	--
Total	100	100

Table 4.3.8
Share of Different income categories in FC Awards (in %)

Income category	Share in the Award of		
	11 th F C	12 th F C	Eleventh in Twelfth FC*
High	19.10	19.92	15.69 (4.23)
Middle	37.18	36.02	35.69(0.36)
Low	43.72	44.06	48.63 (-4.59)
Total	100	100	100

Notes: Shares of 17 states scaled up to 100 %. Shares are for undivided Bihar, MP and UP.

* Shares deriving from use of the Eleventh FC formula for the Twelfth FC award. Figures in the parenthesis indicate gain (/loss) due to the change in formula by the Twelfth FC.

Table 4.3.9

Gain in shares of states due to change in formula between the
11th and 12th FC Awards

states	12 th FC Shares	11 th in 12 th	Gain/loss
Maharashtra	5.12	3.53	1.60
Tamil Nadu	5.44	4.65	0.79
Gujarat	3.66	3.09	0.57
Karnataka	4.57	4.14	0.43
Punjab	1.33	0.91	0.42
Kerala	2.73	2.31	0.42
Andhra Pradesh	7.54	7.21	0.33
Haryana	1.10	0.78	0.33
Himachal Pradesh	0.54	0.42	0.11
Jammu & Kashmir	1.33	1.22	0.11
Uttaranchal	0.96	0.94	0.02
Rajasthan	5.75	5.81	-0.06
West Bengal	7.23	7.29	-0.06
Chattisgarh	2.72	2.81	-0.09
Assam	3.32	3.57	-0.25
Jharkhand	3.44	3.72	-0.27
MP	6.88	7.20	-0.32
Orissa	5.29	5.71	-0.42
Bihar	11.30	3.00	-1.69
UP	19.75	21.70	-1.95

Notes: * Shares deriving from use of the 11th FC formula for the 12th FC Award.

* Shares of 20 states scaled up to 100%.

According to the TFC report, the commission has tried to evolve a formula that balances equity with fiscal efficiency. The population criterion is said to be an indicator of the need for public goods and services within the state, the income distance reflects differentials in revenue capacity (and indirectly needs), while the area criterion measures cost disability of the regions. The

remaining two criteria – tax effort and fiscal self-reliance – are indicators of fiscal efficiency.

The changes introduced by the TFC in the horizontal devolution formula determining the inter se tax shares of individual states have effectively reduced its progressivity at a time when **regional disparities are worsening**. ‘The modifications brought in by the TFC – reduced weightage to income distance, decrease in the weight of inverse of per capita GSDP in operationalising the tax effort criterion, the increased weight assigned to population, area, and tax-effort – have all contributed to making the horizontal devolution formula less progressive;.

3.5 PROBLEMS OF FISCAL POLICY, FISCAL SECTOR REFORMS IN INDIA

The World Bank in 1996 warns India of the consequences of the failure to reduce the fiscal deficit from then 5 % of GDP to 3.5%. The World Bank prescribes 3.5% level of fiscal deficit of GDP as a safe level for the LDCs. Incapacitance on the part of India to effect reduction on fiscal deficit front or bearing of a persistently high fiscal deficit is viewed as a valid cause to prevent higher rate of growth on a sustained basis. ‘Almost half of the fiscal deficit was due to the need to finance the revenue deficit. Even though sizeable parts of debts can be retired from the proceeds out of selling off PSUs, yet it does not seem achievable under the prevailing political environ, with the left political parties abhorring the thought of selling PSUs’. High fiscal deficits preempt savings at the expense of the more productive private sector, raise real interest rates to high levels, affect private investment adversely, increase the propensity for inflation, and also do they add to the probability of a balance of payment crisis. The Country Economic Memorandum (CEM) 1996 also cautioned India against the present unbalanced mix between monetary and fiscal policy. It said that the current development could be the early signs of

underlying short run demand management tension that could threaten the gains achieved in the post-reform period in stabilizing the economy. A large section of the people concerned seem to be unanimous on the point that high fiscal deficit in India is the cause for ills like poverty, less growth, trade deficit, inflation, less productivity, high interest rates, high cost of fresh borrowing, etc.

‘Excessive market borrowing by the government leads to higher interest rates on one hand and instability of debt to GDP ratio on the other. Due to excessive reliance on internal borrowings interest payments consume more than 50 % of revenue receipts of the central government. So here we find ourselves in a vicious circle of sorts, high fiscal deficits leading to high interest rates and huge interest payments, which necessitate increased borrowing’.

It can be noted that between 1998-99 and 1999-00 revenue expenditure as a proportion of total expenditure increased from 77% to 83% and capital expenditure declined from 23 to 17. Capital expenditure as a proportion of GDP has come down from 4.6% in 1990-91 to 2.4% in 1999-00.

Economic Survey 2000 suggests that the prospect for accelerating economic growth depend crucially on the success in managing the fiscal challenge confronting the economy. The government’s proposed strategy includes:

- A redefinition and narrowing of government responsibilities to those functions that only the government can discharge effectively, with a view to downsizing government.
- Systematic efforts to reduce subsidies by targeting them to the poorest segments of society.
- A vigorous drive to divest commercial undertakings such as power utilities and transport undertakings.
- A concerned programme to deploy user charges for economic services rendered by the government.
- Modern management practices to enhance efficiency of governance.

- Resource generation through transparent sale of under-utilised public properties such as land.
- Truly effective expenditure management.

It has been opined by many from time to time that the fiscal deficit should be 3 – 4 % of GDP to facilitate growth of over 6 – 7 %, with inflation hovering at a reasonable level of 5 – 6%. However, there is no comprehensive reasoning why 3.5% is to be accepted as a safe limit for a country like India. ‘the World Bank’s CEM is unduly alarmist about the fiscal situation’, says Haseeb A Drabu. According to fiscal deficit cut should not be at the cost of long-term growth. The government’s excessive zeal for controlling fiscal deficit could impair the prospects of economic growth itself, rather than propelling the growth. The government should instead cut out on its revenue deficit. In the quest for fiscal deficit control, capital expenditure on infrastructure and the social sector might suffer that a developing economy like India cannot afford. The efforts need to be oriented around avoidance or reduction of wasteful unproductive expenditure. The point is to tackle the problem of bad expenditure, not merely expenditure.

‘The high fiscal deficit is not a problem by itself but it is so because of the use deficit is put to. The sustainability of deficit is suspect in a situation where deficit is not being used to create infrastructure and human capital, instead it is being used to finance the government’s consumption expenditure’. Besides cutting on the expenditure component, the other option in hand is to increase taxes by widening tax net.

Efforts at improving the fiscal health of the states and the centre are continuing, more vigorously for last few years. The results are mixed, both at the centre and states levels.

The fiscal deficit of the centre and state governments together accounted for 10.5% of gross domestic product in 1985-86. It recorded a rising trend throughout the late 1980s and reached

the highest level in 1990-91, the year of the first Gulf War. The efforts of the government afterwards to discipline the fiscal behaviour with the help of the new economic policy succeeded in bringing down the deficit to an average rate of 8 % of GDP in the mid-1990s. But success was found to be short-lived as India again fell back on the path of high fiscal deficit in the latter half of 1990s, specifically after 1997 when the central government accepted the Fifth Pay Commission recommendations that led to a substantial increase in the salaries and pensions of the government employees. This hike in central government wage structures has adversely affected the financial conditions of different state governments as they have also introduced similar wage revisions. Against this backdrop there has been concern over the growing fiscal deficit again and the government found it necessary to enact the Fiscal Responsibility and Budget Management Act in the year 2000, which sought to eliminate the revenue deficit by March 2008.

However, the Act was aimed at regulating the deficit of the central government only, and no check over state budget deficits has still been proposed, although fiscal deficit of the states has been increasing at an alarming rate. The combined fiscal deficit of all the states was 2.71% of GDP in 1985-86, 3.30% in 1990-91, and 5.06% in 2003-04.

It is important to note that Fiscal consolidation, after a promising beginning in the early 1990s, started faltering from 1997-98. Fiscal deficit of the Central Government as a proportion of GDP, after its decline from 6.6 % in 1990-91 to 4.1 % in 1996-97, rose every year to reach 6.2% in 2001-02. Progress in fiscal consolidation resumed in 2002-03. According to provisional data in 2003-04, the ratio at 4.6 % was lower than the budget estimate of 5.6%.

It is heartening to note that there is substantial improvement in the fiscal deficit position of the country particularly during the

last couple of years. The fiscal deficit has come down from 4.1 % in 2005-06 to 3.7 in 2006-07. It is scheduled to decline further to 3.3 in 2007-08.

Revenue deficit declined to 3.6% of GDP in 2003-04, but even at this level, it was higher than the level of 3.3% of GDP observed in the pre-reform year of 1990-91. The increasing share of revenue deficit in fiscal deficit distinctly reveals the deterioration in the composition of the fiscal deficit and in the quality of expenditure. The share of revenue deficit in fiscal deficit had risen from 49.4% in 1990-91 to 78.0% in 2003-04, which was sought to be reversed in 2004-05 by targeting a lower revenue deficit of 2.5 % of GDP in the budget estimates.

The FRBMA mandates that the revenue deficit should be phased out by 2008-09. The revised estimate for revenue deficit for 2006-07 is placed at 2 % and in 2007-08, this is supposed to further decline to 1.5%. This implies that to achieve the FRBMA target, the revenue deficit will have to be reduced by 1.5 percentage points of GDP in a single year, 2008-09. In fact, in the last three years the cumulative reduction in revenue deficit has been just about 1.5 percentage points and the rate of reduction in the revenue deficit achieved so far does not infuse confidence in reducing the revenue deficit by 1.5 percentage points in one year.

States' Financial Position

Though the fiscal deterioration of state began much later than that of the Centre, the fiscal stress of some of the state governments is more acute and an important constraint in their development. The revenue account of states has been continuously in deficit since 1987-88. The deterioration in the revenue account of states has been more pronounced from the late 90s. As a proportion of GDP, revenue deficit of states which increased from 0.3% in 1987-88 to 1.1% in 1996-97, shot up to 2.5% in 1998-99, following mainly the revision of pay scales of government

employees. The deficit continued to remain high till date with a couple of exceptional years.

The fiscal deficit of states as a proportion of GDP, increased from a level of 3.3% in 1990-91 to 5.1% in 2003-04.

The major signs of fiscal deterioration in state finances could be summarized as: steady deterioration in revenue-GDP ratio; widening revenue gap; rapid rise in gross fiscal deficit-GDP ratio and pre-emption of larger borrowed funds for financing revenue deficit, steady decline in capital investment-GDP ratio. The cumulative impact is the accumulation of states' debt. The outstanding liabilities of the states as ratio to GDP increased from 16.6% in 1980-81 to 19.4% in 1990-91, and after a slight decline from 1993 to 1998, increased to 23.7% in 2000-01. 'Between the 1980s and 1990s the share of resource transfer under Finance Commission had revealed a declining trend from an average of 15.1% to 13.2%. Combined with a declining share of Finance Commission awards and its own tax revenues, the states had to resort to external borrowing and the share of borrowed funds in financing the expenditure increased to 52% in the 1990s from 46% in the 1980s'.

Nevertheless, the states have done relatively better than the centre in terms of raising own tax revenue. 'The own tax revenue of states increased from an average of 5.4% of GDP in the period 1990-95 to 5.8% of GDP in 2002-03. In contrast, central transfers declined from 4.9% of GDP to 4.1% of GDP in the same period'. The performance of states in mobilizing non-tax revenue too has deteriorated. Non-tax revenue to GDP ratio declined from an average of 4.1% in the period 1990-95 to 3.3% in 2002-03. Total expenditure of states increased from an average of 16.0% of GDP in the period of 1990-95 to 17.1% of GDP in 2002-03.

Outstanding liabilities of states as a proportion of GDP, which was 18.2% in 1994-95, after initial decline in the next two years, shot up to 29.2% in 2003-04.

Millennium Budget

The expenditure component in the 2000-01 budget shows continued neglect of maintenance of assets, continued preponderance of revenue expenditure, continuation of low levels of capital expenditure, continued growth in committed expenditures like interest payment and discretionary tilt in expenditure priorities away from subsidies and towards defence.

Revenue receipts remain around the same level since 1995-96. From 9.3 % of GDP in 1995-96 to 8.5 in 1998-99 to 9.27 in 1999-00 to 9.24 in 2000-01 budget. Whatever the reason the government has failed to deliver on the revenue front. In fact, overall net revenue receipts, comprising tax and non-tax revenues, declined as a proportion of GDP during the 1990s. But this decline was not uniform for the tax and non-tax components of revenue receipts. Overall tax revenues were more sluggish as is evident from the decline in its share in GDP by almost 1.5 % points between 1990-91 and 1998-99. Non-tax revenue on the other hand increased their share in GDP by 0.7% in the corresponding period.

Fiscal Responsibility Legislation

The Fiscal Responsibility and Budget Management (FRBM) Act, 2003 which became from July 5, 2004 mandates the central government to eliminate revenue deficit by March, 2009 and to reduce fiscal deficit to an amount equivalent to 3% of GDP by March, 2008.

The Fiscal Responsibility and Budget Management (FRBM) Rules, 2004:

- Reduction of revenue deficit by an amount equivalent of 0.5% or more of the GDP at the end of each financial year, beginning with 2004-05.
- Reduction of fiscal deficit by an amount equivalent of 0.3% or more of the GDP at the end of each financial year, beginning with 2004-05.
- No assumption of additional liabilities (including external debt at current exchange rate) in excess of 9% of GDP for the financial year 2004-05 and progressive reduction of this limit by at least one percentage point of GDP in each subsequent year.
- No guarantees in excess of 0.5% of GDP in any financial year, beginning with 2004-05.
- Specifies four fiscal indicators to be projected in the medium term fiscal policy statement. These are, revenue deficit as a percentage of GDP, fiscal deficit as a percentage of GDP, tax revenue as percentage of GDP and total outstanding liabilities as percentage of GDP.
- For greater transparency in the budgetary rules mandate the central government to disclose changes, if any, in accounting standards, policies and practices that have a bearing on the fiscal indicators. The government is also mandated to submit statements of receivables and guarantees and a statement of assets at the time of presenting the annual financial statement, latest by budget 2006-07.
- The rules prescribe the form for the quarterly review of the trends of receipts and expenditures. The rules mandate the central government to take appropriate corrective action in case of revenue and fiscal deficits exceeding 45% of the budget estimates, or total non-debt receipts falling short of 40% of the budget estimates at the end of first half of the financial year.

It can be mentioned that following the enactment of FRBM Act, government constituted a Task Force headed by Dr. Vijay Kelkar for drawing up the medium term framework for fiscal policies to achieve the FRBM targets. The Task Force was also asked to formulate annual targets indicating the path of adjustment and required policy measures. The Task Force submitted its report in July, 2004. The Task Force recommended a path of fiscal adjustment that is front-loaded and mainly revenue-led, with complementary reform efforts on revenue expenditure and enhanced capital expenditure to counteract the possible contractionary effects of fiscal correction.

The Task Force estimated that under the reforms scenario recommended by it, tax-GDP ratio of the centre would improve from 9.2% in 2003-04 to 13.2% in 2008-09. Total expenditure is estimated to come down to 14.3% of GDP by 2008-09 from 15.4% of GDP in 2003-04. A revenue surplus of 0.2% of GDP is estimated in 2008-09. Fiscal deficit is estimated to come down from 4.8% of GDP in 2003-04 to 2.8% of GDP in 2008-09.

3.6 UNION BUDGET

India's budget making has undergone a great deal of transformation since the passing of the Fiscal Responsibility and Budget Management law in 2003.

The Union Budget 2007-08 had to address a number of objectives. It had to be designed to maintain the growth momentum, fulfill the mandate of the National Common Minimum Programme of the UPA government and adhere to the fiscal discipline as stipulated in the Fiscal Responsibility and Budget Management Act. Meeting competing claims for resources while maintaining fiscal discipline required the Finance Minister to undertake cautious measures for trade off between short and medium term objectives.

The positive changes which occurred in the Indian economy in recent times and helped Finance Minister to take a few ambitious targets in recent years' budget are as follows: The projected 9.2% GDP growth in 2006-07, coming as it does on the 9% growth in the previous year points to the country's entry into the high growth phase. A notable feature of the current growth phase has been the sharp rise in the rate of capital formation – 30% and more.

The Finance minister also talks of the growing strength of India's balance of payments in the post-reform period and points out that the current account deficits recorded in 2004-05 and 2005-06 at US \$ 2.5 billion and \$ 9.2 billion was due mainly because of the rising crude prices. But crude prices are not going to come down very soon and how are we going to manage the deficits – a challenge remained unattended in the current fiscal policies of the government. However, with foreign fund flows into the country rising continually, the foreign exchange reserve position at \$185.1 billion brackets the country among the top nations with high levels of reserves.

The fiscal deficit as a ratio of GDP has been contained at 3.7% of GDP in 2006-07 and is budgeted to decline to 3.3% in 2007-08. While this was partly due to the high growth of GDP, there has been improvement in fiscal variables as well particularly during the last two financial years. At this rate, it should not be difficult to conform to the FRBMA target of a fiscal deficit of 3% of GDP for 2008-09.

While the fiscal deficit reduction programme is on course, there are concerns both about the magnitude and quality of fiscal adjustment. There are hidden deficits and those that are pushed to the public enterprise account. Equally important is the fact that the adjustment has failed to bring about a reduction in revenue deficit to the desired extent. The FRBMA mandates that the revenue deficit should be phased out by 2008-09. The revised estimate for revenue deficit for 2006-07 is placed at 2 % and in 2007-08, this is supposed to further decline to 1.5%. This implies that to achieve the FRBMA target, the revenue deficit will have to be reduced by 1.5 percentage points of GDP in a single year, 2008-09. In fact, in the last three years the cumulative reduction in revenue deficit has

been just about 1.5 percentage points and the rate of reduction in the revenue deficit achieved so far does not infuse confidence in reducing the revenue deficit by 1.5 percentage points in one year (M Govinda Rao, 2007).

The Finance Minister makes it a point that 'India's fiscal consolidation process is essentially revenue-led unlike the expenditure compression strategy in most other countries'. Since the enactment of the FRBMA, the tax revenue relative to GDP increased by 2.2% from 9.2% in 2003-04 to 11.4% in 2006-07. This has been mainly due to the sharp rise in corporate and income tax receipts. This revenue growth has been complemented by a considerable decline in the proportion of expenditure of the centre to GDP – 14.1% in 2005-06 from 16.8% in 2002-03. As non-tax revenues declined by 0.9% during the period, there was a net revenue increase of 1.3 %. The revenue deficit had also declined by the same margin during the period, although transfers to states during the period also increased by 1 %.

As to fears expressed that the economy may be overheating and thereby causing inflation, the Finance Minister says (2007): 'the key to maintaining high growth with reasonable price stability lies in rapid capacity addition through investments, productivity improvements and ameliorating the skills shortage. While monetary policy will continue to play a critical role in maintaining prices stability, the sustainability of high growth with moderate inflation will depend critically on bolstering the twin pillars of growth, namely fiscal prudence and high investment and improving the effectiveness of government intervention in critical areas such as education and health'.

The outlay for the infrastructure sectors – transport and communication is proposed to be increased by 45% and on the energy sector by about 15%. But the estimated budgetary support to plan outlay on these sectors in 2007-08 continues to be low; on transport and communication it will be just about 2% of GDP and on the energy sector it will be about 1.7%. In other words, much of the plan outlay has to come from internal and extra-budgetary resources of public enterprises.

The budget for 2007-08 introduces a number of measures to change the structure of the tax. There are a number of desirable measures, which help to expand the tax base and enable better fulfillment of horizontal equity.

Revenue Budget

This consists of the revenue receipts of the government (tax revenues and other revenues) and the expenditure met from these revenues.

Revenue Expenditure

This is expenditure for the normal running of government departments and various services, interest charges on debt incurred by government, subsidies, etc. Broadly speaking, expenditure which does not result in the creation of assets is treated as revenue expenditure. All grants given to state governments and other parties are also treated as revenue expenditure even though some of the grants may be for creation of assets.

Capital Budget

This consists of capital receipts and payments. It also incorporates transaction in the Public Account.

Capital Receipts

The main items of capital receipts are loans raised by government from public which are called market loans, borrowings by government from RBI and other parties through sale of treasury bills, loans received from foreign bodies and governments and recoveries of loans granted by the Union government to states and Union Territory governments and other parties.

Capital payments

These payments consists of capital expenditure on acquisition of assets like land, buildings, machinery, equipment, as also investments in shares, etc and loans and advances granted by the Union government to state and union territory government companies, corporations and other parties.

Fiscal Policy

An instrument of demand management, which seeks to influence the level of economic activity in an economy through the control of taxation and government expenditure.

Budget deficit

The receipts minus total expenditure on both revenue and capital accounts.

Fiscal deficit

The difference between revenue receipts plus non-debt capital receipts on one side and total expenditure including loans, net of repayments, on the other side. In other words, this is the budget deficit plus borrowings and other liabilities.

Primary deficit

The fiscal deficit minus interest payments.

Table 4.3.10

Budget at a Glance (in crore of rupees)

	2005-06 Actuals	2006-07 Budget Estimates	2006-07 Revised Estimates	2007-08 Budget Estimates
1. Revenue Receipts	347462	403465	423331	486422
2. Tax Revenue (net to Centre)	270264	327205	345971	403872
3. Non-Tax revenue	77198	76260	77360	82550
4. Capital Receipts (5+6+7)\$	158661	160526	158306	194099
5. Recoveries of loans	10645	8000	5450	1500
6. Other receipts	1581	3840	528	41651*
7. Borrowings and other liabilities\$	146435	148686	152328	150948
8. Total Receipts (1+4)\$	506123	563991	581637	680521
9. Non-Plan expenditure	365485	391263	408907	475421
10. On Revenue Account, of which	327903	344430	362183	383546
11. Interest Payments	132630	139823	146192	158995
12. On capital account	37582	46833	46724	91875*
13. Plan expenditure	140638	172728	172730	205100
14. On revenue account	111858	143762	144584	174354
15. On capital account	28780	28966	28146	30746
16. Total Expenditure (9+13)	506123	563991	581637	680521
17. Revenue Expenditure (10+14)	439761	488192	506767	557900
18. capital Expenditure (12+15)	66362	75799	74870	122621*
19. Revenue Deficit (17+1)	92299	84727	83436	71478
	(2.6)	(2.1)	(2.0)	(1.5)
20. Fiscal Deficit {16 – (1+5+6)}	146435	148686	152328	150948
	(4.1)	(3.8)	(3.7)	(3.3)
21. Primary Deficit (20 – 11)	13805	8863	6136	(-) 8047
	(0.4)	(0.2)	(0.1)	-(0.2)

Based on Provisional Actuals for 2005-06.

*Includes an amount of s. 40000 crore on account of transactions relating to transfer of RBI's stake in SBI to the Government.

\$ Does not include receipts in respect of Market Stabilisation Scheme, which will remain in the cash balance of the Central Government and will not be used for expenditure.

Highlights of the Budget 2007-08

The thrust of the Union budget 2007-08 was on agriculture and infrastructure. Long term sustainable proposals which will take the country forward on the economic front were announced in the fourth Union budget. Education and health also have been given priority. Finance Minister, P. Chidambaram asserted that Bharat Nirman will continue to be the corner stone for government policies.

- 9.2 % GDP growth rate estimated in 2006-07.
- Manufacturing growth rate at 11.3%.
- Average growth rate for last three years is 8.6%.
- Saving rate of 32.4%, investment rate of 33.8% will continue.

Bharat Nirman

- 15054 villages have been covered under rural telephony and efforts to be made to complete the target of covering 20000 villages by 2006-07.
- Allocation on Healthcare to increase by 21.9%
- Allocation for education to be enhanced by 34.2%.
- Allocation for National Rural Health Mission stepped up.
- School drop out rate is high. To prevent drop out, a National Means-cum-Merit scholarship to be implemented, with an allocation of Rs. 6000 per child.
- 130 more districts under NREGA. Additional allocation of Rs. 12000 crore rupees for it.
- Rs. 7000 crore allocation for better tax administration to be used for social schemes.
- Total Budget for the NER raised from 12041 crore to 14365 crore rupees.
- Women's development allocation will be Rs. 22282 crore.

Focus on Agriculture

- Rs. 2,25,000 crore farm credit proposed in the new budget. A target of additional 50 lakh farmers to be brought under farm credit.
- Farmers' credit likely to reach Rs. 1,90,000 crore as against the targeted 1,75,000 crore rupees during 2006-07.
- One hundred per cent subsidy for small farmers and 50 % for other farmers for water recharging scheme.
- World Bank signed agreement for revival of 5763 waterbodies in Tamil Nadu. Loan component 2182 crore rupees.

Infrastructure

- Allocation for National Highway Development programme to be stepped up.
- Work on golden Quadrilateral road project nearly complete. Considerable progress made on North-South, East-West corridor and likely to be completed by 2009.
- Northeastern region will get 405 crore rupees for highway development. Road-cum-rail project over Brahmaputra in Bogibil in Assam.
- The ceiling of loans for weaker sections under differential rate of interest scheme will be raised from Rs. 6500 rupees to Rs. 15000 and in housing loan from Rs. 5000 to Rs. 20000.
- Insurance companies to launch a senior citizens scheme in 2007-08.

Tax proposals

- Peak customs duty rate on non-agricultural items reduced from 12.5 to 10 %.

- Small scale industries excise duty exemption raised from one crore to 1.5 crore rupees.
- Income tax limit not to be changed. Threshold limit raised by Rs. 10000 giving every assessee a relief of Rs. 1000.
- Surcharge on Corporate income tax on companies below Rs. One crore removed.
- Five year tax holiday for two, three, four star hotels and convention centres with a seating capacity of 3000 in NCT of Deihi, Gurgaon, Ghaziabad, Faridabad, and Gautam Buddha Nagar for Commonwealth Games. Twenty thousand more rooms required.

3.7 Let Us Sum Up

The World Bank prescribes 3.5% level of fiscal deficit of GDP as a safe level for the LDCs. Incapacitance on the part of India to effect reduction on fiscal deficit front or bearing of a persistently high fiscal deficit is viewed as a valid cause to prevent higher rate of growth on a sustained basis. The sustainability of deficit is suspect in a situation where deficit is not being used to create infrastructure and human capital, instead it is being used to finance the government's consumption expenditure. Besides cutting on the expenditure component, the other option in hand is to increase taxes by widening tax net. Though the fiscal deterioration of state began much later than that of the Centre, the fiscal stress of some of the state governments is more acute and an important constraint in their development.

Terminal questions :

1. What are the characteristics of Indian money market? Do you think these have changed over the years, particularly in the past decade?

2. Explain the problems associated with large fiscal deficit. Do you think that India's fiscal deficit is dangerously high?
3. Explain the main features of Union budgets in recent years.
4. Do you think that recommendations of the Twelfth Finance Commission help in improving the financial relations between the Centre and the States? Give some justifications.

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SELF LEARNING MATERIAL

ECONOMICS

COURSE : ECO - 104

ISSUES ON INDIAN ECONOMICS

BLOCK - 5

**Directorate of Distance Education
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ECONOMICS

COURSE : ECO - 104

ISSUES ON INDIAN ECONOMICS

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ECONOMICS

COURSE : ECO - 104

ISSUES ON INDIAN ECONOMICS

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UNIT - 1 : ECONOMIC PLANNING AND POLICY 1-30

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BLOCK-5

ECONOMIC PLANNING

This block consists of two units. The first unit is exclusively on concept, history, targets, achievements, etc., of Indian economic planning and policy issues related with regional disparities. On the other hand the second unit deals with the economic reforms of India.

UNIT- 1 : ECONOMIC PLANNING AND POLICY

Structure

- 1.0 Objectives
- 1.1 Introduction
- 1.2 Meaning and Features of Economic Planning
- 1.3 Economic Planning and India
 - 1.3.1 Features of Economic Planning in India
 - 1.3.2 Main Objectives
 - 1.3.3 Achievement and Failures of Plans
 - 1.3.4 Strategy of Indian Planning
 - 1.3.5 Resource Mobilisation and Investment in Five Year Plans
 - 1.3.6 Salient Features of Current Five Year Plan
- 1.4 Regional Disparities
 - 1.4.1 Indicators and Extent of Regional Disparities
 - 1.4.2 Causes of Regional Disparities
 - 1.4.3 Policy Measures to Reduce Regional Disparities
- 1.5 Regional Planning
- 1.6 Role of Panchayats, NGOs and SHGs in reducing Regional Disparities
- 1.7 Let Us Sum Up

1.0 OBJECTIVES

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

- (i) explain the meaning and features of economic planning;
- (ii) identify the features, objectives, achievements and failures of different plans;
- (iii) discuss the regional disparities and regional planning; and
- (iv) explain the role of panchayats, NGOs and SHGs in reducing regional disparities.

1.1 INTRODUCTION

Today, economic planning has become an integral part of state economic policy in almost every countries of the world. Although the idea of the economic planning is deeply rooted in human psychology and having been first formulated by Plato in his Republic nearly 2,400 years ago, its present form is comparatively newer. In 1928, Soviet Union first formulated its first five-year plan with a view to achieving “the rapid transformation of a backward state into a modern industrial power” and there after the concept of economic planning has gained momentum through out the globe. Moreover, the 1930’s great depression further pushed the capitalists countries also to adopt economic planning. Keynes publication The General Theory of Employment, Interest and Money strengthen their belief on economic planning to fight depression and to achieve certain goals such as full employment, increase in the level of income, reduction in inequalities in income and wealth, etc. The Second World War again necessitated the proper and efficient planning of economic resources, for the successful prosecution of war. The European countries formulated economic planning in order to revive their economy. The attainment of freedom by some of the colonial countries in South Asia further gave stimulus

to the idea of national economic planning as a means to securing rapid economic growth within a short span of time.

1.2 MEANING AND FEATURES OF ECONOMIC PLANNING

It is very difficult to give a precise definition of economic planning that is acceptable to all. Different economists have defined economic planning in different ways to achieve certain ends. Some useful definitions of economic planning are given below:

Professor Robbins defines planning as “Planning in the modern jargon involves government control of production in some form or other.”

Myrdal views economic planning as a “programme for the strategy of a national government in applying a system of state interference with the play of market forces, thereby conditioning them in such a way as to give an upward push to the social process.”

Barbara Wootan states “Planning may be defined as the conscious deliberate choice of economic priorities by some public authority.”

Professor Waterson defines “planning as an organized, conscious and continual attempt to select the best available alternatives to achieve specific goals. It involves the economizing of scarce resources. It has been used for variety of ends, by different societies and in different ways. It is not limited to socialistic solutions. It can be and is used by democratic and capitalistic countries.”

Diskinson in Economics of Socialism defined “Economic planning is the making of major economic decisions what and how much to be produced; how, when and where it is to be produced;

and to whom it is to be allocated; by the conscious decision of a determinate authority, on the basis of a comprehensive survey of the economic system as a whole.”

Thus economic planning means deliberate control and direction of the economy by a central planning authority for the purpose of attaining certain definite objective within a specified period of time. It is also an attempt at using scarce resources of the country in a desired way to achieve certain pre-determined objectives.

Features of Economic Planning:

An economic planning possesses certain features, which are mentioned below:

The Central or State Authority undertakes economic planning.

There is a definite objective or goal to be achieved within a given period, say, five years.

There is one single governmental authority that is responsible for planning and coordinating various economic activities.

Economic planning is generally for the whole economy and also for any particular section of the economy. In the former case a national plan is prepared for the whole economy.

Economic planning is generally for a long period, say, 5 years, 10 years and so on. The period should not be too short because it is very difficult to complete big projects in short time. Again, it should also be not too long.

1.3 ECONOMIC PLANNING AND INDIA

The concept of economic planning is not a new to the Indian intellectuals. Even during the British regime there was a good deal of thinking regarding the economic planning for Indian

economy. It was Sir M. Visvesvayya who had advocated for the first time an economic planning for India in his book “Planned Economy for India” published in 1934. In 1938, the Indian National Congress set up the National Planning Committee under the chairmanship of Jawaharlal Nehru and submits its plan report in 1949 as due to Second World War and changing political scenario in India the committee remained suspended from 1942 to 1946. In addition to this, several other plans at individual level were drawn up. In 1944, the eight industrialists of Bombay prepared the Bombay Plan also known as the Tata-Birla Plan. S.N. Agarwal framed Ganghian Plan in the same year. By emphasizing on agricultural development through nationalization of land M.N. Roy framed the People’s Plan in April 1945. In 1946, the interim government was formed in India and the government established a High Level Planning Board in order to study the problems of planning and developments in the country. The Board studied all the problems very deeply and gave recommendations to establish a stable planning commission at the central level that could continuously work for the planning and development of the country. Then, Jaiprakash Narayan published Sarvodaya Plan in January 1950. The government did not accept the entire plan and adopted only a few parts of it. Finally, the government of India constituted Planning Commission on 15th March 1950 to prepare the draft of plan for the country. Until now, nine plans and seven annual plans have been completed. The tenth plan is in operation and the draft report for the 11th plan are also coming and the government of India has accepted the most of the recommendation of the planning commission.

1.3.1 Features of Economic Planning in India

Indian economic planning has been coloured by the peculiarities of the country. The Indian planning, however, possesses the following characteristics:

(i) **Indicative Character:** Indian economic planning is largely indicative in character. Unlike normative plans, India's plans are not legally binding on the public or the private sector. There is no force or compulsion attached to the fulfillment of plan targets. When a plan is approved by the parliament of the country, it does not become a law. The plan provides the format for the future, the specific goals and targets, as also the means whereby these are intended to be carried out. Within this framework it is expected that the economic units both in the public and private sector, will ensure its implementation. However, it does not mean that the government sits back after the plans are blue printed. There is the provision and not merely enumeration of definite means for effecting the implementation of plans. The government makes provision of adequate supply of materials and personnel, while for the private sector it lays down some rules and regulations.

(ii) **Decentralized Decision Making:** The Indian planning system is not totalitarian in nature it is decentralized in nature. The decision-making points are not located in a central office. Most of the economic decisions are taken in the market. A part of the private sector is included in the frame of planning, but a much larger number of activities falling under private sector remain outside of the core of plans. Indian plans do not seek to substitute decisions of a central authority for the market mechanism. It should also to be noted here that while doing so it has also seek to influence and control the market and that is why it has formulated a lots of rules and regulations to control the operation of the private sector. No doubt most of the decision-making points are at the market. However, there are certain key decisions, which are almost centralized. For example, the choices in respect of rate of investment, the allocation of investible resources to different sectors, the use of foreign exchange, the location of governmental projects etc., are centrally made. In making these decisions the government may

keep in view to the market considerations. But since in developing economies markets are distorted (and in many cases do not exist), these crucial choices are made outside the market. Thus Indian planning does consider centralized choices but its over all image is one of decentralized planning.

(iii) **Development Oriented:** The Indian economic planning is development oriented. In a country whose economic progress depends on the increase in capital stock, it could not be otherwise. The basic objective of Indian planning over the years is to become a self-reliant economy.

(iv) **Predominant Public Sector:** Public sector had dominated the Indian economy in the initial years of planning. After the economic reform of 1991, however the dominant role of public sector has reduced to some extent. The private sector has got due importance as the public sector failed to meet the hopes and aspirations of the people.

(v) **Regulatory-restrictionist:** The control system of Indian planning in respect of private sector is largely regulatory, and to an extent restrictionist in character. However with the passage of time and the improvement of planning techniques and resource availability, it has become more sophisticated and effective. At present the control system of Indian economy planning is not as restrictionist as earlier. Now it is moving from planned economy to a market-oriented economy.

1.3.2 Main Objectives

The long-term objectives of Indian economic planning are given in various five-year plans. The main objectives of Indian planning are mentioned below:

- (i) Economic Growth
- (ii) Self Reliance

- (iii) Reduction in Income Inequalities
- (iv) Removal of Unemployment
- (v) Removal of Poverty
- (vi) Rationalization and Modernization.

1.3.3 Achievement and Failures of Plans

Success or failure of a plan only meant the targets fixed during a given plan were achieved fully or partially. The real impact of the planning is not clarified. We should also remember that with every plan, India starts at a higher level of growth and development. Hence we here make an attempt to assess the overall achievement of the all the five-year plans.

(1) **Increase in National Income and Per Capita Income:** one basic objectives of economic planning in India is to increase national income and per capita income. Increase in per capita GDP is considered as an indicator of the economic growth. In the pre-planning British period, India's national income was growing at a rate of 0.5 per cent per annum and naturally the economy could be called as the stagnant economy. During the last 50 years of planning (1950-51 to 2001-02), national income has increased 8.4 times from Rs. 132367 crore to Rs. 1115157 crore implying a compound growth rate of 4.3 per cent per annum. The per capita income has increased 2.9 times from Rs. 3687 to Rs. 10754 at 1993-94 prices registering a compound growth rate of 2.1 % at the aggregates measured at factor cost at 1993-94 prices. The following table-1 provides a brief picture of the growth performance of various plans and the table –2 provides a glance at the growth rate of per capita income during various plans.

Table-1
Growth Performance in Various Plan (in % per annum)

Plan	Target	Actual
First (1951-56)	2.1	3.6
Second (1956-61)	4.5	4.3
Third (1961-66)	5.6	2.8
Fourth (1969-1974)	5.7	3.3
Fifth (1974-1979)	4.4	4.83
Sixth (1980-85)	5.2	5.7
Seventh (1985-1990)	5.0	6.02
Eighth (1992-97)	5.6	6.8
Ninth (1997-2002)	6.5	5.4
Tenth (2002-2007)	8.0	7.2
Eleventh (2007-12)	10.0	-

Table-2
Growth rate of per capita income during various plans (in %)

Plan	Growth in Per Capita Income
First (1951-56)	1.8
Second (1956-61)	1.9
Third (1961-66)	0.2
Fourth (1969-1974)	0.9
Fifth (1974-1979)	2.6
Sixth (1980-85)	3.1
Seventh (1985-1990)	3.7
Eighth (1992-97)	-
Ninth (1997-2002)	-
Tenth (2002-2007)	-

(2) Increase in Per Capita Income: Capital formation has a positive and strategic role in the economic development of a country. Savings and investments have both increased during the course of planned economic development. the following table-3 shows the rate of saving and the rate of investment in various plans.

Rate of Saving and the Rate of Investment in Various Plans

Year	Rate of Saving	Rate of Investment
1950-51	10.4 of GDP	-
1955-56	13.9 of GDP	10 per cent
Fourth Plan	18.4	14.5
Fifth Plan	22.5	17.9
Sixth Plan	-	-
Seventh Plan	24.0	22.5
Eighth Plan	24.1	25
Ninth Plan	26.1	28.2

(3) Progress in Agriculture: During the last 50 years of reforms, the Government of India has spent on an average 23 – 24 per cent of the plan outlay in each five year plan on the development of the agriculture and allied activities and irrigation. As a result of this investment agricultural production has shoot up, though not to the extent planned by the government. Green revolution was took place in many states of the country. The country becomes almost self sufficient in respect of food grain production.

(4) Sectoral Indicators: The output in the economy is divided in to three sectors, viz., primary, secondary and tertiary. There is drastic change in the scenario of the sectoral contribution to the

national income. in 1950-51, the contribution of primary sector in national income was 61 % , of secondary sector 14.5% and of the tertiary sector it was 24.5 %. But now the contribution of the primary sector is 32 % that of the secondary and the tertiary sector are respectively 27% and 40%.

(5) Industrialization via Public Sector: A major achievement of the Indian economic planning has been the diversification and expansion of India's industrial capacity with public sector having a leading role. The country is self sufficient in respect of the consumer goods and the basic commodities like steel and cement.

(6) Development of Economic Infrastructure: Another achievement of great significance is the creation of economic infrastructure, which provide the base for the rapid industrialization.

(7) Diversification of Exports and Imports: As consequences of the rapid industrialization in India, items of exports and imports are being diversified. This is another major achievement of the Indian planning. Development of science and technology and development of a huge educational system, rise in life expectancy rate, improvement in literacy, substantial increase in standard of living etc., are some other important achievement of Indian plans.

However, the Indian planning system has also suffered from certain weaknesses and failures. Some of them are mentioned below:

- (1) Failure to eliminate poverty;
- (2) Failure to provide employment opportunities to all able-bodied persons;
- (3) Failure to reduce inequalities of income and wealth;
- (4) Failure to check the growth of black money;

- (5) Failure to check inflationary rise in prices and
- (6) Failure to reduce concentration of economic power and Failure to implement land reforms.

1.3.4 Strategy of Indian Planning:

The basic strategy of the Indian planning has been rapid industrialization of the country particularly to the development of the basic and key industries. Except in the first plan, right from the second plan the entire planning process in India is based on this strategy. In fact the second plan had envisaged the unbalanced growth strategy of Hirschman. Therefore in the second plan, emphasis was laid on the development and expansion of iron and steel, non-ferrous metals, coal, cement, heavy chemicals and other industries of basic importance. The entire planning technique in India had been based on the model prepared by P.C. Mahalanobis. Thus following the unbalanced growth strategy, Indian planning commission stressed on the development of the capital goods. The production of the consumer goods and the agriculture was left to the private sector. There was some change in the third and the fourth plan, and in the both plans, importance was given to agriculture. The excess demand due to heavy capital investment in the public sector could not be met by the short supply of food grains and essential goods that leads to an inflationary situation. The fourth plan shifted the strategy of planning in favour of the quick yielding projects and light industries. In agriculture, priority was given to improved seeds and fertilizers. The fifth plan is a radical departure from the early plans. The plan gave top most priority to removal of unemployment. It aimed at providing basic necessities of life to the poorest section of the population. Large funds were allocated to the minimum needs programmes. The strategy of Mahalanobis towards heavy industry development was condemned in no uncertain words. The planning strategy emphasized the Gandhian

Socialism of developing cottage and small-scale industries using labour intensive technology. The sixth plan was a departure from the Mahalabonis strategy. In this plan special emphasis was put on raising exports to reduce balance of payment deficits. Licensing was relaxed. On the other hand the seventh plan, which was began on 1st April 1990 emphasized policies and programmes that aimed at rapid growth in food grains production, increased employment opportunities and productivity within the basic tenants of planning i.e., ‘growth, modernization, self reliance and social justice.’ The basic priority in the eight plan was shifted to human development. On the other hand, ‘growth with equity and distributive justice’ was determined as the main focus of the ninth plan. The development strategy adopted by the tenth plan envisages redefining the role of the government in the context of the emergence of a strong and vibrant private sector, need for provision of infrastructure and need for imparting greater flexibility in fiscal and monetary policies. The 11th plan envisages goal towards faster and more inclusive growth. The approach paper for the eleventh plan has mentioned the objective of the plan is “Towards Faster and More Inclusive Growth”.

1.3.5 Resource Mobilization and Investment in Five-Year Plans

Mobilisation of resources refers to the scheme of collecting funds for financing a plan. An essential aspect of development planning is its financing. For any economic plan to be successful, financial resources have to be generated through internal and external sources to meet the targeted expenditure, both developmental and non-developmental. Financial resources are mobilized through a number of ways, such as balances of current government revenues, surplus of public enterprises, income from public services and public utilities, borrowings,

additional resources mobilized through taxation, and various savings schemes of the government. Resources can also be mobilized from the external sources such as foreign aid, loans from international institutions and foreign private sector, etc. In developing countries of the world, deficit financing is also adopted to mobilize the resources. In India, the resources are mobilized from the following sources and subsequently invested in different plans:

- (i) Domestic Savings
- (ii) Taxation
- (iii) Borrowings- internal
- (iv) Surplus of Public enterprises
- (v) Income from railways
- (vi) Provident Funds
- (vii) Deficit financing
- (viii) External Debt from International Financial Institutions, such as IBRD, IDA, IMF, etc., Credits from the individual countries, Aids from the International Financial Institutions and foreign countries, etc.

The pattern of investment in the first plan was to create the necessary economic and social overheads like power, transport, public health, education etc., and to develop agriculture. Accordingly the highest priority was given to agriculture. To correct the imbalance in the pattern of investment of the first plan in the second plan, top most priority was given to invest in industries and minerals. The failure of agricultural front and the strains and stresses experienced by the economy during the second plan compelled the planners to design the investment strategy such that increase the growth rate over 5 per cent in the subsequent years; to achieve self-sufficiency in food production and increase agricultural production to meet the requirements of future industries and

export; to expand basic industries like steel, chemical etc. and to establish the machine building capacity, so that the requirement of the further industrialization could be met within 10 years; to utilize man-power in the fullest possible way and to ensure substantial employment opportunities; and to establish progressively greater equality of opportunity and to bring about reduction in income disparities and more even distribution of economic power. Keeping this view, 21 per cent was spent on agriculture, 23 per cent on the development of large and small-scale industries, 25 per cent on transport and communication, 16 per cent on social and other services and 15 per cent on power projects. The pattern of investment in the fourth plan was such as to give highest priority to agriculture and irrigational development programmes. Thus, out of total expenditure of Rs. 15,779 crore, 24 per cent was allocated to agriculture and the all other sectors were allocated almost uniformly at 19 per cent. On the other hand the pattern of investment in the fifth plan was in accordance with its twin objectives removal of poverty and economic self-reliance. Thus out of total expenditure of Rs. 39,426 crore, 23 per cent was allocated to industry and mining, 22 per cent to agriculture and irrigation, 19 to power, 18 to social services, and 17 to transport and communication. In the sixth plan the highest priority was given to power and energy sector and accordingly out of total investment of Rs. 1,10,821 crore it got 29 per cent of allocation. Again in the consequent plans highest priority was given to the development of energy.

1.3.6 Salient Features of Current Five-Year Plan

The 10th Plan has ended in 31st March 2007 and consequently the eleventh five-year plan has started. The following are the major features of the current five-year plan:

Income & Poverty:

- (i) To accelerate the rate of GDP growth from 8 to 10 percent and then maintain at 10 per cent in the 12th Plan in order to double per capita income by 2016-17.
- (ii) Increase agricultural GDP growth rate to 4 per cent per year to ensure a broader spread of benefits.
- (iii) Create 70 million new work opportunities.
- (iv) Reduction of educated unemployment to below 5 per cent.
- (v) Raise real wage rate of unskilled workers by 20 per cent.
- (vi) Reduction of headcount ratio of consumption poverty by 10 percentage point

Education:

- (i) Reduce dropout rates of children from elementary school from 52.2 per cent in 2003-4 to 20 per cent by 2011-12.
- (ii) Develop minimum standards of educational attainment in elementary school, and by regular testing monitor effectiveness of education to ensure quality.
- (iii) Increase literacy rate for persons of age 7 years or more to 85 per cent.
- (iv) Lower gender gap in literacy to 10-percentage point.
- (v) Increase the percentage of each cohort going to higher education from the present 10 per cent to 15 per cent by the end of the 11th plan.

Health:

- (i) Reduce infant mortality to 28 and maternal mortality to 1 per 1,000 live births.
- (ii) Reduce Total Fertility Rate to 2.1.
- (iii) Provide clean drinking water for all by 2009 and ensure that there are no slip-backs by the end of the 11th plan.
- (iv) Reduce malnutrition among the children of age 0-3 to half of its present level.
- (v) Reduce anaemia among the women and girls by 50 per cent by the end of the 11th plan.

Women and Children:

- (i) Raise the sex ratio for age group 0-6 to 935 by 2011-12 and to 950 by 2016-17.
- (ii) Ensure that at least 33 per cent of the direct and indirect beneficiaries of all government schemes are women and girl children.
- (iii) Ensure that all children enjoy a safe childhood, with out any compulsion to work.

Infrastructure:

- (i) Ensure electricity connection to all villages and BPL households by 2009 and round-the-clock power by the end of the plan.
- (ii) Ensure all water road connection to all habitation with 1000 and above (500 in hilly and tribal areas) by 2009 and ensure significant habitation by 2015.
- (iii) Connect every village by telephone by November 2007 and provide broadband connectivity to all villages by 2012.

- (iv) Provide homestretch sites to all by 2012 and step up the pace of house construction for rural poor to cover all the poor by 2016-17.

Environment:

- (i) Increase forest and tree cover by 5 percentage point.
- (ii) Attain WHO standards of air quality in all major cities by 2011-12.
- (iii) Treat all urban wastewater by 2011-12 to clean river waters.
- (iv) Increase energy efficiency by 20 percentage points by 2016-17.

Social Objectives:

- (i) Reduction of poverty from 27.8 per cent in 2005-6 to 16.2 per cent by 2011-12.
- (ii) Provide gainful employment to 70 million people.
- (iii) Raise literacy rate to 75 per cent and
- (iv) Access to safe drinking water facility to all.

Check Your Progress-1

Mention five important objectives of Indian economic plan.

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1.4 REGIONAL DISPARITIES

Regional disparities exist in both developed and the developing countries of the world. However, in the developed countries all inhabitants have an assured level of minimum subsistence and the problem of regional imbalance is concerned with mainly the means by which the lagging regions would catch up with the leading regions. On the other hand in the developing countries the basic problem is to provide a minimum level of subsistence to a large number of population. In the developed countries planners are confronted with the problem of relative poverty while in the developing countries it is absolute poverty. Regional disparity has been a major problem in India in the post independence India. It started with the advent of India by the British. In India, development of modern industries and other activities of resource exploitation were guided by the objectives of the British rulers resulting in the growth of economically developed enclaves centered port cities like Calcutta, Bombay and Madras. Thus West Bengal and Maharashtra ranked high in industrial and economic development on the eve of independence, while the other areas are grossly neglected and thereby remained backward.

1.4.1 Indicators & Extent of Regional Disparities:

In terms of the standard economic and social indicators disparity within India is quite remarkable. This can be discussed as below:

(i) Per capita Income: Per capita income is one of the most important indicator of regional disparities. The following table presents an idea about the per capita net state domestic product of the major states of India.

Table: Per Capita NSDP at Factor Cost (At Current Price)

State	1980-81	1990-91	1996-97	Annual Average Growth Rate	
				1980-81 to 1990-91	1990-91 to 1996-97
Punjab	2674	8318	18213	12.0	13.9
Maharashtra	2435	7444	17295	11.8	15.1
Haryana	2370	7508	16199	12.2	13.7
Gujrat	1940	5913	13932	11.8	15.3
West Bengal	1773	4673	9441	10.1	12.4
Karnataka	1520	4598	10279	14.4	14.3
Kerala	1508	4200	9066	10.8	13.7
Tamil Nadu	1498	4978	13839	12.7	17.3
Andhra Pradesh	1380	4728	9867	13.1	13.0
MP	1358	4049	7445	11.5	10.7
Assam	1284	4281	6663	12.8	7.6
UP	1278	3590	6733	10.9	11.0
Rajasthan	1222	4191	9215	13.1	14.0
Orissa	1314	3077	6422	8.9	12.6
Bihar	917	3665	3835	11.2	6.2
All India	1825	5761	12284	12.2	13.4
Ratio between Maximum & minimum per capita NSDP	2.9	3.1	4.7	--	--

From the table it is clear that in 1980-81, the ratio between the maximum per capita income of Punjab and the minimum per capita income of Bihar was 2.9. These ratios slightly increased to 3.1 in 1990-91 and further worsen to 4.7 in 1996-97. on the other hand the following table shows the per capita GSDP as a percentage of GDP.

Table: Per capita GSDP as a percentage of GDP

States	1981-82	1985-86	1990-91	1997-98
Forward group				
Andhra Pradesh	87.4	82.4	92.5	92.9
Gujarat	125.3	124.4	118.8	137.4
Haryana	146.5	139.9	146.6	139.4
Karnataka	92.8	93.7	95.4	107.2
Kerala	90.5	90.9	87.8	116.4
Maharashtra	143.0	134.7	144.7	167.5
Punjab	168.6	165.0	169.7	146.5
Tamil Nadu	92.8	97.0	100.0	119.5
Backward group				
Assam	83.6	92.1	83.1	62.2
Bihar	58.8	60.6	53.5	44.2
Madhya Pradesh	80.8	74.8	78.1	73.5
Orissa	75.0	74.7	66.9	61.8
Rajasthan	76.6	74.0	79.3	81.1
Uttar Pradesh	75.8	71.9	70.6	64.4
West Bengal	103.3	102.9	91.7	85.1
All India	100	100	100	100

(2) Trends in Investment and Financial Assistance: Trend in investment and the financial assistance provided a brief idea about the extent of the regional disparities. Studies made by Kurian of the Planning Commission revealed that more than two-thirds of the investment proposals (69.2%) in the post reform period are concentrated in the forward areas. Similar situation prevailed in terms of the financial assistance distributed by the all India financial institutions and the state financial cooperations. Upto March 1997, 67.3 per cent of the total assistance given by the all India financial institutions were provided to the advanced states. Even in the case of State Financial Co operations, 70 per cent of the total assistance were received by the same.

(3) **Infrastructure Disparity:** Infrastructure is one of the important catalysts of economic development of a region. Punjab, Goa, Tamil Nadu, Maharashtra, Gujarat, Kerala and Karnataka have achieved comparatively higher growth in infrastructure. Contrary to this, states like West Bengal, Northeastern states, Jammu & Kashmir and Uttar Pradesh are lagging far behind.

(4) **Resource Transfer from the Centre to the States:** There is an in-built imbalance between the expenditure responsibilities and the revenue sources of the State governments. The founding fathers of the Indian Constitution were aware of this fact and ensured a comprehensive scheme of devolution of Central Tax revenues through the mechanism of Finance Commissions. The sharing of Personal Income Tax and Excise duties collected by the Centre with the States is periodically reviewed by the Finance Commission appointed every five years. The Commission also decides the principles and the formula by which the allocable funds are to be distributed among the States.

An important aspect of the devolution of Central tax revenues under Finance Commission dispensation is that it has an in-built bias in favour of fiscally weak States. Population and per capita income of the State get high weight-age in the distribution formula. A State with larger population and lower per capita income gets a higher share in the Central tax revenues. The gap between revenue receipts (other than the Central tax revenues) and revenue expenditure is another parameter, which decides the level of a State's share. As a result the Central tax share constitutes a major revenue source for the backward States. While it constitutes about one-third of the total tax revenues of all the States taken together; it accounts for more than 50 per cent of the total tax revenues of less developed States like Bihar and Orissa; but its share is less than 15 per cent of the total tax revenues of more developed States like Gujarat, Haryana, Maharashtra and Punjab.

A second channel of resources flow from the Centre to the States is Planning Commission, which provides Central Assistance for State Plans. The State plans are financed partly by States own resources and the balance by Central Assistance. Central assistance is provided as a block assistance of which 30 per cent is grant and the remaining 70 per cent is a long-term loan. The rationale for this grant-loan proportion is imbedded in the fact that about 30 per cent of the plan expenditure was of revenue nature and 70 per cent was of capital nature when this proportion was decided in the late Sixties. Since plan expenditure of revenue nature is not expected to yield any financial returns for servicing the loan, this share was provided as grant by the Centre.

(5) Pattern of Private Investment: In the wake of economic reforms initiated in 1991, the role of private investment has acquired a special significance in the context of economic development of various States of the Indian Union. Indeed, there has been an element of competition among States ever since for attracting private investment, both domestic and foreign. Some of the States have been offering various tax concessions and other special facilities to new investors on a competitive basis.

The total investment proposals received by all the States and UTs since the inception of economic reforms in August 1991 till the end of March, 2000 are worth Rs.908, 888 crore. The disparities in the percentage share of different States in these investment proposals are obvious. The group of forward States accounted for two-third of the amount while the group of backward States accounted for just over 27 per cent of the amount. Indeed, Gujarat and Maharashtra together accounted for 39 per cent of the investment proposals, which is significantly more than the total investment proposals received by all the States in the second group. While Gujarat which accounted for less than 5 per cent of the population of the country, received over 17 per cent of the private investment proposals; Bihar which accounts for more than 10 per cent of the population of the country, received just a little

over one per cent of such proposals. This is a clear pointer to the direction of private investment in the coming years.

Check Your Progress- 2

What is the ratio between maximum & minimum per capita NSDP in 1996-97?

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1.4.2 Causes of Regional Disparities:

There are several factors responsible for the existence of regional disparities in India. Some important of these factors are discussed below:

- (i) **Historical Factor:** Historically, the problem of regional disparities started with the colonial rule of the British. The Britishers helped to develop those regions which possessed facilities for prosperous manufacturing and trading activities. Maharashtra and the West Bengal are the states preferred by the British, while the other states were neglected and remained backward.
- (ii) **Locational Advantages:** Some regions are preferred because of the locational advantages. The location of iron and steel factories or oil refineries will have to be only in those technically defined areas, which are optimal from all stand point. Naturally as development

gains momentum, they attract labour, capital, trade and investment.

- (iii) **Nature of Development during the Planning Era:** Serious regional disparities resulted during the period of planned economic development started since 1950-51. Even though, the government of India undertakes balanced regional development strategy, it failed miserably to reduce disparities. In fact, with every plan disparities among the states have also gone up, which is basically due to the fact that some states got more importance than the others.
- (iv) **Adoption of New Agricultural Strategy:** The adoption of new agricultural strategy in 1960's has also aggravated regional disparities. Some states like Punjab, Haryana got the maximum benefit of this and the other states are almost neglected and remained underdeveloped.
- (v) **Other Factors:** Government did make an attempt to decentralization and development of backward regions but due to lack of growth of ancillary industries in these areas have continued to remain backward despite of the heavy investment made by the center. Another fact is that people of some states are naturally more energetic and industrious (e.g., Punjab, Haryana, Gujrat), while in many of the states people are lezzy and not energetic, lacking entrepreneurial skills. Again, in some states like Punjab, Maharashtra, Gujrat, Tamilnadu, the governments have taken active steps for rapid industrialization – the others are interested in political intrigues and manipulations rather than in rapid and balanced economic growth of these areas.

1.4.3 Policy Measures to Reduce Regional Disparities:

The Planning Commission of India has sought to tackle the problem of regional imbalances and backwardness particularly in three ways:

- (i) The recognition of the backwardness as a factor to be taken in to account in the transfer of financial resources from the center to the states.
- (ii) Special area development programmes directed at development of backward areas; and
- (iii) Measures to promote private investment in backward areas.

Create employment opportunities at a faster pace than the labour force growth, removal of unemployment and poverty are some of the steps that the government have taken to reduce disparities. Removal of unemployment and poverty can contribute significantly towards elimination of regional imbalance. Ninth plan put significant emphasis on the removal of regional disparities. In the tenth plan the objective of equity has been integrated with the objective of growth for achieving regional growth. Industrial policy can be another option to reduce regional disparity.

1.5 REGIONAL PLANNING

Regional planning is a technique to evaluate the potential of regions and to develop them to the best advantage of the nation as a whole. It is the task of the regional planning to bring out the developmental potentialities of each region and to chalk out the strategies for their development, so that the nation as a whole can become a better place to live in. Regional planning cannot perform a positive role in the economy unless it is properly integrated to economic and social development at the national level.

Regional planning is concerned with the following activities:

- (a) activities regarding the distribution of investment decisions made by the sectoral units;
- (b) to analyse regarding the impact of the decisions on the development of different regions in a given country;
- (c) to indicate how the sectoral investment decisions can be integrated at the regional level and what advantages can be achieved by the integration.

Regional planning is only an instrument to improve the sectoral efficiency of the investment processes. For that regional planners seek to improve the distribution pattern of human activity and reduce the level of disparity between rich and backward regions of a country

Regional planning is essentially a means to strengthen the national economy. It is a technique to evaluate the potential of regions and to develop them to the best advantage of the nation as a whole. Burton Mackaye defined regional planning as “ regional planning consists in the attempt at discovering the plans of the nature for the attainment of man’s ends upon the earth; it visualizes industry as the servant of culture, and its chief concern is the guidance within a region of the flow of civilization. This flow may consist of electric fluid, of lumber, of wheat, of beef, or dairy products. It may consist of the flow of population, of housing and living facilities.” In the words of Mumford, “regional planning asks not how wide an area can be brought under the aegis of the metropolis, but how the population and civic facilities can be distributed so as to promote and stimulate a vivid and creative life throughout a whole region... The regionalist attempts to plan such an area so that all its sites and resources, from forest to city, from highland to water level, may be soundly developed, and so that population will be distributed so as to utilize, rather than to nullify

or destroy its natural advantages. It sees people, industry and the land as a single unit. In sum, regional planning does not mean the planning of big cities beyond their present areas, it means the reinvigoration and rehabilitation of whole regions so that the products of culture and civilization, instead of being confined to a prosperous minority in the congested centers, shall be available to everyone at every point in a region where the physical basis for a cultivated life can be laid down.”

In countries where national plan incorporates the basic objectives of regional development, regional planning plays a more positive and active role in reducing the disparities between the rich and the backward regions.

The wide disparities which exists between the levels of development attained by different areas and communities within a state and their full potential for development cannot be narrowed down unless the resources to be provided and the programmes to be taken up in each area or for each community are determined on the basis of a specific and local; assessment of problems, resources and productive potentials.

1.6 ROLE OF PANCHAYATS, NGOS AND SHGS IN REDUCING REGIONAL DISPARITIES

The panchayats, the NGOs and the SHGs can play very important role in reducing regional disparities. Both panchayats and the NGOs can work at the ground level and thereby help the poor people for their economic upliftment through several employment-generating programme. On the other hand the SHG is newer concept. Here small groups are formed and banks provide loan facilities to these groups collectively on concession basis. This can also help the poor people to be self-employed and thereby, generation of income. Thus these entire three have can play

important role in the generation of employment and income and thus help in the reduction of regional disparity.

Check Your Progress-3
What is regional Planning?

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1.7 LET US SUM UP

This unit deals with economic planning and other related aspects of it. Economic planning has become an integral part of state economic policy in almost every countries of the world. There are several definitions of economic planning offered by different economists. However, we can define it as deliberate control and direction of the economy by a central planning authority for the purpose of attaining certain definite objective within a specified period of time. The concept of economic planning is not a new to the Indian intellectuals. It was Sir M. Visvesvayya who had advocated for the first time an economic planning for India in his book “Planned Economy for India” published in 1934. The main objectives of Indian planning are mentioned below: (i) Economic Growth, (ii) Self Reliance, (iii) Reduction in Income Inequalities, (iv) Removal of Unemployment, (v) Removal of Poverty, (vi) Rationalization and Modernization. The basic strategy of the Indian planning has been rapid industrialization of the country particularly to the development of the basic and key

industries. Mobilization of resources refers to the scheme of collecting funds for financing a plan. In this unit we also discuss about the meaning, the causes and the extent of regional disparity. We also discuss about regional planning. Regional planning is a technique to evaluate the potential of regions and to develop them to the best advantage of the nation as a whole. Lastly we discuss briefly about the role of panchayats, the NGOs and the SHGs in reducing regional disparities.

Key words

Economic Planning: Economic Planning can be defined as deliberate control and direction of the economy by a central planning authority for the purpose of attaining certain definite objective within a specified period of time.

Mobilization of resources refers: It refers to the scheme of collecting funds for financing a plan.

Regional planning: Regional planning is a technique to evaluate the potential of regions and to develop them to the best advantage of the nation as a whole.

Suggested Readings

1. Indian Economics: Dutt and Sundharam, S. Chand & Company Ltd., New Delhi.
2. Indian Economics: Mishra & Puri, Himalaya Publishing House, Mumbai.
3. Indian Economy Since Independence: Kapila, Academic Foundation, Delhi.

UNIT - 2 : NEW ECONOMIC REFORMS OF INDIA

Structure

2.0 Objectives

2.1 Introduction

2.2 Meaning of Liberalization, Privatization and Globalization

2.3 Globalization and Indian Economy

2.4 Disinvestments in Public Sector Undertakings: Rationale,
Features and Assessment

2.5 WTO and its impact on Indian Economy

2.6 Let Us Sum Up

2.0 OBJECTIVES

After going through the unit, you will be able to

- (i) know the Meaning of Liberalization, Privatization and Globalization;
- (ii) discuss the performance of Indian economy under globalisation;
- (iii) explain Disinvestments in Public Sector Undertakings: Rationale, Features and Assessment
- (iii) discuss the impact of WTO on Indian Economy

2.1 INTRODUCTION

The process of liberalization, privatization and globalisation has been started in different countries since the last quarter of the twentieth century and India also adopted a series of reform measures in this regard from 1991. The basic objectives of globalisation are to increase world output, employment and trade so that all the countries

of the world can share the benefits. Although these ideas appear to be new, however, if we go through the pages of history of economic thought, it is found that different school of thought propounded some of these ideas long back. For example, the Physiocrats of France advocated *laissez-faire* policy, which emphasized the non-interference of government in economic activities. In other words, they were in favour of liberalization policy so that the economy can grow smoothly. Although their *laissez-faire* policy was confined to agricultural sector only, however, it was Adam Smith, the pioneer of Classical School, who advocated for such policy measures for the entire economy in the eighteenth century itself. Similarly, the Mercantilists of England advocated expansion of international trade for inflow of gold into the country, which can speed up the process of economic development. Later on the Classical School emphasized these ideas for the development of capitalist system. On the other hand, after the October Revolution of Russia in 1917 and subsequently the economic crisis faced by the country, the leaders like Lenin and Stalin had to compromise with their ideology and declared New Economic Policy (NEP) in 1921 as stop-gap arrangement. The NEP handed over certain loss-making nationalized industries to private sector and also reintroduced the landlord system in certain parts of the country where the riots declined to pay land revenue to the state exchequer. However, Trotsky did not agree with the NEP as he was of the opinion that an island socialism in the midst of capitalism cannot survive. Therefore, he advocated the spread of socialism throughout the globe, i.e. globalisation of the socialist system. Trotsky's prediction proved to be correct by the end of the last century and as a result, the globalisation process under the capitalist system grew rapidly.

It is to be noted that a number of economic, political and other developments in 1980s and 1990s in different parts of the world are responsible for rapid spread of the present globalisation process. For example, the end of cold war, dismantling of USSR,

collapse of Berlin wall, emergence of new international NGOs, human rights movements, global environment, faster and cheaper communication channels, i.e. internet, cellular phone, fax, computer etc. also speeded up the process of globalisation.

2.2 MEANING OF LIBERALIZATION, PRIVATIZATION AND GLOBALIZATION

Meaning Of Liberalisation :

"Trade and financial liberalization cover measures, which allow goods, services and money to move more easily across borders. The motive behind this liberalization is to make it easier to do business internationally." Trade liberalization is often closely linked with investment agreements and policies: an example is the trade agreement between South Africa and the European Union. Governments often use trade liberalization to attract foreign investors. A common practice is to create free trade zones where foreign investors are exempted from local laws and taxes. Trade liberalization involves removing tariffs or taxes on imported goods, abolishing quotas, and lifting restrictions on how much of a particular firm or industry may be owned by foreigners. Financial liberalization eases restrictions on movement of money across borders. In particular, it makes it possible for companies to take their profits out of a country where they are based and to invest them elsewhere.

The term trade liberalization refers to market opening measures and they can take various forms namely: Reduction of tariffs and non-tariff barriers; Deregulation of domestic regulatory measures including liberalization e.g. relaxation of investment and capital flows between countries; Enhanced transparency of trade policies/regulations; and Trade facilitation measures (e.g. simplification of customs procedures/practices)

Meaning Of Privatization :

Privatization refers to the sale of state-owned enterprises and services to the private sector. The underlying ideology is a simple dichotomy: private good, public bad. This implies that the state should not be the producer, owner, or deliverer of services. In South Africa, the government has sold off huge amounts of shares in state-owned enterprises such as the electricity company, Eskom, the Telecommunication Company, Telkom, and Aventura Resorts. Other measures of privatization include outsourcing services to private companies. Services that traditionally have been provided by the state, such as health care, telecommunication, electricity, or water, are contracted to the business sector. For instance, in South Africa, payment of pensions for senior citizens is now the responsibility of private companies.

Meaning Of Globalization :

Globalization is not a single phenomenon. It has become a catch-all concept to describe a range of trends and forces leading to openness, integration and interdependence of economies.

The term globalization can be broadly defined as a process relating to integration of economies and societies through cross country flows of information, ideas, technologies, goods, services, capital, finance and people. The essence of globalization is thus, connectivity. Cross border integration have several dimensions: cultural, social, political and economic. In the economic sense, globalization means the integration of economies worldwide where world economy is viewed as a single market and production area with regional or sub-sectors rather than a set of national economies linked by trade and investment flows. Cross border operations of economic activities – production, investment, financing, technology utilization and marketing. Optimal utilization of global resources

including competitive sourcing of inputs for achieving cost competitiveness in production, economies of scale in operations and efficient technology utilization. Easy movement of product and factor flows across borders involving merchandise trade, services, investment, financial capital, technology and labour. The internationalization of consumption – consumers are buying more foreign products. Competition, production and markets become global in nature and goods and services become less distinguishable or identifiable with their country of origin. At the firm level, globalization would refer to a process in which firms configure and coordinate their activities across national boundaries in order to maximize profit and remain competitive. This would reflect a situation in which firms decentralize their production in different parts of the world. (e.g. production facilities may take place in country X, research and development facilities in country Y and regional headquarters in country Z).

Global Economic Scenario :

The percentage change of world output during the last seven years shows a mixed trend as presented in Table 1. The lowest growth rate of world output was found to be at 2.6 in 2001 while it reached the peak at 5.3 in 2004. In 2005 it was 4.8 per cent and the estimates for the next two years are found to be more or less the same. However, there exist difference in the percentage change of output in advanced and developing countries. The percentage change of output in advanced countries varied between 1.2 (in 2002) to 3.9 (in 2000). In case of developing countries it was found to vary between 4.1 per cent (in 1999) and 7.6 per cent (in 2004). Thus the performance of the developing countries was found to be much better than the developed countries during the last seven years.

2.3 GLOBALIZATION AND INDIAN ECONOMY

Economic reform was initiated in India in 1991 to make the economy efficient and globally competitive. These reforms are geared to minimize state intervention and controls and to let market forces determine production and trade patterns. The commitments made by India under the Uruguay Round agreement signed in 1994 will integrate the Indian economy more closely into the global economy. Based on these developments, India tried to develop the economy during the post-reform period.

The Indian economy recorded strong growth for the third successive year during 2005-2006 in an environment of macroeconomic and financial stability, notwithstanding sustained pressures from record high international crude oil prices. Real GDP growth accelerated from 7.5 per cent during 2004-05 to 8.4 per cent during 2005-06 on the back of buoyant manufacturing and services activity supported by a recovery in the agricultural sector. Real GDP growth has, thus, averaged over 8 per cent during the last three years and over 7 per cent in the first four years (2002-03 to 2005-06) of the Tenth Five Year Plan. Such achievement has raised optimism about future growth prospects of the national economy.

Now let us have a discussion about the performance of a few selected reform measures initiated in early 1990s. We shall confine our discussion about the impacts of globalization on foreign trade, foreign investment, foreign exchange reserves, agriculture and regional disparity.

Foreign Trade :

The Uruguay Round Agreement and the establishment of the World Trade Organization (WTO) usher in a new era regarding the rules and disciplines of the world trading system.

The agreement entails a reduction in the barriers to the play of world market forces in production and trade. Tariff and non-barriers to trade have been substantially reduced. With these compulsions let us now briefly analyze the performance of India's foreign trade.

The volume of India's foreign trade grew at 20 per cent in the first half of 1990s and slowed down to 10 per cent in the next half. In terms of value of exports it was Rs 72,000 million in 1991-92 which increased to Rs 3,83,265 million in 2001-02. Thus, the annual growth rate was 43 per cent during 1991-2001 against 13 per cent during 1951-1991. However, during last four years the export growth of 24 percent per annum, on average, points to the growing competitiveness of the world market. In terms of growth of foreign trade it may be considered as a satisfactory performance, but in terms of share of India's share in the world trade, which is only 0.8 per cent cannot be said to be satisfactory.

As regards composition of trade some changes were observed during 1980s, but during post-liberalization period significant change is not observed. However, as regards to direction of trade there are some changes during post-liberalization period. Countries like Indonesia, Bangladesh, Hong Kong, Sri Lanka, Malaysia, South Korea etc. are found to be emerging trade partner of India. Thus, the Asian region has developed, intra-Asian trade, which has gathered momentum leading to even higher economic integration within the region. Emerging Asian economies accounted for a significant share of 22.6 per cent in India's total exports in 2005-06. China has emerged as the third major export destination for India after the US and the UAE. Despite that India needs to learn important lessons from the experiences of China and East Asia countries and carry forward the process of liberalizing its trade and industrial policies and bringing down tariff and non-tariff barriers to international level (Chadha, Rajesh, 1998)

Foreign Investment :

Foreign investment flows into India, comprising foreign direct investment (FDI), have risen sharply during the 1990s reflecting the policies to attract non-debt creating flows. Foreign investment flows have increased from negligible levels during 1980s to reach US \$ 20 billion by 2005-2006. Cumulative foreign investment flows have amounted to US \$ 106 billion since 1990-91 and almost evenly balanced between direct investment flows (US \$ 49 billion) and portfolio flows (US 57 billion). Since 1993-94, FDI flows have exceeded portfolio flows in five years while portfolio flows have exceeded FDI flows in the remaining eight years. As a proportion to FDI flows to emerging market and developing countries, FDI flows to India have shown a consistent rise from 1.6 per cent in 1998 to 3.7 per cent in 2005. The sharp rise in portfolio investment into India since 2003-04 reflects both global and domestic factors. Search for yield in view of very low real long-term rates in advanced economies have been an important factor-driving portfolio flows to emerging market economies as a group and India has also attracted such flows. Domestic factors such as strong macroeconomic fundamentals, resilient financial sector, deep and liquid capital market, improved financial performance of the corporate sector and attractive valuations also attracted large portfolio flows between 2003-04 and 2005-06.

India has been making efforts towards encouraging more inflows through FDI and enhancing the quality of portfolio flows. The Government has also taken steps to enhance the FDI sectoral caps in infrastructure in recent years like development of telecom, civil aviation etc. FDI up to 100 per cent through the Reserve Bank's automatic route was permitted for a number of new sectors in 2005-06 such as Greenfield airport projects laying of pipelines, export trading. (*RBI Annual Report*). FDI caps under the automatic route were enhanced to 100 per cent for coal and lignite mining for captive consumption and setting up infrastructure relating to

marketing in petroleum and natural gas sector. All these measures have been contributing towards increasing direct investment. Although FDI growth of above 30 per cent during past two years is encouraging, however, FDI inflows into India are small as compared to other emerging markets, their size is growing on the back of growing interest by many of the world's leading multinationals. India has improved its rank from fifteenth in 2002 to become the second most likely FDI destination after China in 2005 (*A.T Kearney, 2005*).

India's Direct Investment Abroad :

Following the phased liberalization in the regime for Indian investments overseas, investments in joint ventures (JV) and wholly owned subsidiaries (WOS) abroad have emerged as important avenues for promoting global business by Indian entrepreneurs. They are also a source of increased exports of plants and machinery and goods from India. Joint ventures have also been perceived as a medium of economic cooperation between India and other countries. Overseas investments which started off initially with the acquisition of foreign companies in the IT and related services sector have now spread to other areas, particularly pharmaceuticals and petroleum. Table 2 presents India's direct investment abroad during 2000-01 to 2005-06.

Table – 2
India's Direct Investment Abroad
(US \$ million)

Industry	2000-01	2003-04	2004-05	2005-06
1	2	3	4	5
Manufacturing	169	893	1,068	1,538
Financial Services	6	1	7	156
Non-Financial Services	470	456	283	531
Trading	52	113	181	215
Others	12	31	108	239
Total	709	1495	1,647	2,679

Source : Annual Report, 2005-06, Reserve Bank of India

Foreign Exchange Reserve :

India's foreign exchange reserves- comprising foreign currency assets, gold, SDRs and the reserve trunched position with the IMF – increased by US \$ 10.1 billion during 2005-06 to reach US \$ 151.6 billion at the end-March 2006 against \$ 76.10, \$ 112.95, \$ 141.51 in 2003, 3004 and 2005 respectively. The increase in the value of gold holdings mirrored the increase in global prices of gold. India, which had turned a creditor to the IMF under the Financial Transactions Plan (FTP) in 2003, provided SDR 34 million during 2005-2006 to countries like Turkey and Uruguay. The total quantum of India's contribution under FTP has been SDR 493 million as at end-March 2006 and thus India held the fifth largest stock of international reserve assets among Emerging Market Economies (EMEs). India's foreign exchange reserves were US \$ 165.4 billion as on August 18 2006, man increase of US \$ 13.7 billion over end-March 2006 (RBI Annual Report, 2005-06).

The overall approach to the management of India's foreign exchange reserves takes into account the changing composition of the balance of payments and endeavours to reflect the 'liquidity risks' associated with different types of flows and other requirements. The objectives of reserve management in India are preservation of the long-term value of the reserves in terms of purchasing poser and the need to minimize risk and volatility. For example, the foreign currency assets are invested in multi-currency and multi-market portfolios.

Agricultural Sector :

The policy approach to agriculture, particularly in the 1990s, has been to secure increased production through subsidies in inputs such as power, water and fertilizer, rather than through building new capital assets in irrigation, power and rural infrastructure. The strategy has run into serious difficulties. Deteriorating State finances have meant that subsidies have crowded-out public agricultural

investment in roads and irrigation and expenditure on technological upgrading. Apart from the inability to create new assets, the lack of resources has eroded expenditure on maintenance of canals and roads. The financial non-viability of the State Electricity Boards has made it difficult to expand power supply in uncovered rural areas and contributed to the low-quality of rural power supply.

Therefore, the Tenth Plan (2002-07) emphasized to raise the cropping intensity of our existing agricultural land, investment in irrigation facilities, the development of rural infrastructure that supports not only agriculture but all rural economic activities, development and dissemination of agricultural technologies and diversification of agricultural products, both geographically and over time (*Tenth Five Year Plan, 2002-2007*).

Let us now analyse the latest position of Indian agriculture. The average growth rates of real GDP (at 1999-2000 prices) originating from agriculture and allied activities during 2000-01 to 2002-03 was -0.2 per cent which was obviously unsatisfactory. However it rose to 10 per cent in 2003-04 and again declined to 0.7 per cent in 2004-05. In 2005-06 it registered a growth of 3.9 per cent showing wide-scale fluctuations during the last five years period. Both food grains and non-food grains production enabled the latest improvement in agricultural sector. Furthermore, improvement in respect of horticulture, livestock, fisheries and plantation crops has imparted some resilience to the real GDP growth originating from agriculture and allied activities. Backed by a normal monsoon and post-monsoon rains, agricultural production, as measured by the Index of Agricultural Production, is estimated to have staged a recovery of 7.9 per cent during 2005-06 in contrast to a decline of 2.7 per cent during the preceding year (*RBI Annual Report, 2005-06, p14*).

The GATT agreement will improve the competitiveness of Indian agricultural products as developed countries would be

required to reduce the volume of subsidized exports and also phase-wise cut down agricultural subsidies of greater than 10 per cent. India, being within the prescribed limit on average mean support, need not cut subsidies and can take full advantage of the agreement. Based on a pilot survey, Indian Council of Agricultural Research (ICAR) has concluded that if the productivity of Indian agricultural products can be increased to two or two and half times and the international quality can be maintained, the cost of agricultural production in India will be one of the lowest in the world and can capture the global market. It further states that if we can grab this opportunity, the present socio-economic scenario of the entire rural area of India will drastically change.

The optimists see these agreements as ushering in an era of large corporate investments in the agricultural sector. These investments based on modern high productivity technology would provide a new growth impulse to Indian agriculture (Bilgrami, S.A.R., 1998) On the contrary, controversy exist whether such policy measures will actually benefit the small and marginal farmers of the country.

Impact on India

India opened up the economy in the early nineties following a major crisis that led by a foreign exchange crunch that dragged the economy close to defaulting on loans. The response was a slew of Domestic and external sector policy measures partly prompted by the immediate needs and partly by the demand of the multilateral organisations. The new policy regime radically pushed forward in favour of amore open and market oriented economy.

Major measures initiated as a part of the liberalisation and globalisation strategy in the early nineties included scrapping of the industrial licensing regime, reduction in the number of areas reserved for the public sector, amendment of the monopolies and the restrictive trade practices act, start of the privatisation programme,

reduction in tariff rates and change over to market determined exchange rates.

Over the years there has been a steady liberalisation of the current account transactions, more and more sectors opened up for foreign direct investments and portfolio investments facilitating entry of foreign investors in telecom, roads, ports, airports, insurance and other major sectors.

The Indian tariff rates reduced sharply over the decade from a weighted average of 72.5% in 1991-92 to 24.6 in 1996-97. Though tariff rates went up slowly in the late nineties it touched 35.1% in 2001-02. India is committed to reduced tariff rates. Peak tariff rates are to be reduced to the minimum with a peak rate of 20%, in another 2 years most non-tariff barriers have been dismantled by march 2002, including almost all quantitative restrictions.

The liberalisation of the domestic economy and the increasing integration of India with the global economy have helped step up GDP growth rates, which picked up from 5.6% in 1990-91 to a peak level of 77.8% in 1996-97. Growth rates have slowed down since the country has still been able to achieve 5-6% growth rate in three of the last six years. Though growth rates has slumped to the lowest level 4.3% in 2002-03 mainly because of the worst droughts in two decades the growth rates are expected to go up close to 70% in 2003-04. A Global comparison shows that India is now the fastest growing just after China.

This is major improvement given that India's growth rate in the 1970's was very low at 3% and GDP growth in countries like Brazil, Indonesia, Korea, and Mexico was more than twice that of India. Though India's average annual growth rate almost doubled in the eighties to 5.9% it was still lower than the growth rate in China, Korea and Indonesia. The pick up in GDP growth has helped

improve India's global position. Consequently India's position in the global economy has improved from the 8th position in 1991 to 4th place in 2001. When GDP is calculated on a purchasing power parity basis.

Globalisation and Poverty :

Globalisation in the form of increased integration through trade and investment is an important reason why much progress has been made in reducing poverty and global inequality over recent decades. But it is not the only reason for this often unrecognised progress, good national policies, sound institutions and domestic political stability also matter.

Despite this progress, poverty remains one of the most serious international challenges we face up to 1.2 billion of the developing world 4.8 billion people still live in extreme poverty.

But the proportion of the world population living in poverty has been steadily declining and since 1980 the absolute number of poor people has stopped rising and appears to have fallen in recent years despite strong population growth in poor countries. If the proportion living in poverty had not fallen since 1987 alone a further 215million people would be living in extreme poverty today.

India has to concentrate on five important areas or things to follow to achieve this goal. The areas like technological entrepreneurship, new business openings for small and medium enterprises, importance of quality management, new prospects in rural areas and privatisation of financial institutions. The manufacturing of technology and management of technology are two different significant areas in the country.

There will be new prospects in rural India. The growth of Indian economy very much depends upon rural participation in the global race. After implementing the new economic policy the role of

villages got its own significance because of its unique outlook and branding methods. For example food processing and packaging are the one of the area where new entrepreneurs can enter into a big way. It may be organised in a collective way with the help of co-operatives to meet the global demand.

Understanding the current status of globalisation is necessary for setting course for future. For all nations to reap the full benefits of globalisation it is essential to create a level playing field. President Bush's recent proposal to eliminate all tariffs on all manufactured goods by 2015 will do it. In fact it may exacerbate the prevalent inequalities. According to this proposal, tariffs of 5% or less on all manufactured goods will be eliminated by 2005 and higher than 5% will be lowered to 8%. Starting 2010 the 8% tariffs will be lowered each year until they are eliminated by 2015.

GDP Growth rate :

The Indian economy is passing through a difficult phase caused by several unfavourable domestic and external developments; Domestic output and Demand conditions were adversely affected by poor performance in agriculture in the past two years. The global economy experienced an overall deceleration and recorded an output growth of 2.4% during the past year growth in real GDP in 2001-02 was 5.4% as per the Economic Survey in 2000-01. The performance in the first quarter of the financial year is 5.8% and second quarter is 6.1%.

Export and Import :

India's Export and Import in the year 2001-02 was to the extent of 32,572 and 38,362 million respectively. Many Indian companies have started becoming respectable players in the International scene. Agriculture exports account for about 13 to 18% of total annual of annual export of the country. In 2000-01 Agricultural products valued at more than US \$ 6million were

exported from the country 23% of which was contributed by the marine products alone. Marine products in recent years have emerged as the single largest contributor to the total agricultural export from the country accounting for over one fifth of the total agricultural exports. Cereals (mostly basmati rice and non-basmati rice), oil seeds, tea and coffee are the other prominent products each of which accounts for nearly 5 to 10% of the country's total agricultural exports.

Where does India stand in terms of Global Integration?

India clearly lags in globalisation. Number of countries have a clear lead among them China, large part of east and far east Asia and eastern Europe. Let's look at a few indicators how much we lag.

- Over the past decade FDI flows into India have averaged around 0.5% of GDP against 5% for China 5.5% for Brazil. Whereas FDI inflows into China now exceeds US \$ 50 billion annually. It is only US \$ 4 billion in the case of India
- Consider global trade – India's share of world merchandise exports increased from .05% to .07% over the past 20 years. Over the same period China's share has tripled to almost 4%.
- India's share of global trade is similar to that of the Philippines – an economy 6 times smaller according to IMF estimates. India under trades by 70-80% given its size, proximity to markets and labour cost advantages.
- It is interesting to note the remark made last year by Mr. Bimal Jalan, Governor of RBI. Despite all the talk, we are nowhere ever close to being globalised in terms of any commonly used indicator of globalisation. In fact we are one of the least globalised among the major countries – however we look at it.
- As Amartya Sen and many others have pointed out that India, as a geographical, politico-cultural entity has been interacting with

the outside world throughout history and still continues to do so. It has to adapt, assimilate and contribute. This goes without saying even as we move into what is called a globalised world which is distinguished from previous eras from by faster travel and communication, greater trade linkages, denting of political and economic sovereignty and greater acceptance of democracy as a way of life.

Consequences :

The implications of globalisation for a national economy are many. Globalisation has intensified interdependence and competition between economies in the world market. This is reflected in Interdependence in regard to trading in goods and services and in movement of capital. As a result domestic economic developments are not determined entirely by domestic policies and market conditions. Rather, they are influenced by both domestic and international policies and economic conditions. It is thus clear that a globalising economy, while formulating and evaluating its domestic policy cannot afford to ignore the possible actions and reactions of policies and developments in the rest of the world. This constrained the policy option available to the government, which implies loss of policy autonomy to some extent, in decision-making at the national level.

2.4 DISINVESTMENTS IN PUBLIC SECTOR UNDERTAKINGS: RATIONALE, FEATURES AND ASSESSMENT

The new industrial policy announced by the Government of India in July 1991 emphasized the four major measures to ‘reform’ the PSEs, viz., (i) reduction in the number of industries reserved for the public sector from 17 to 8 (reduced still further to 6 later) and the introduction of selective competition in the reserved area; (ii) the disinvestments of shares of a select set of PSEs in order to raise

resources and to encourage wider participation of general public and workers in the ownership of PSEs; (iii) the policy towards sick PSEs to be the same as that for the private sector and (iv) an improvement of performance through and MoU system by which managements were granted greater autonomy but accountable for specified results (Government of India, *Economic Survey*, 1992-93, pp143-5). In addition, there was a drastic reduction in the budgetary support to sick or potentially sick PSEs. In this section we shall mainly confine ourselves to disinvestments programme only. The main rationale behind this programme was to raise non-inflationary form of finance for the budget and all other objectives were subsidiary to this main objective.

The programme of disinvestments in PSEs commenced in 1991-92 and till 2000-2001, the cumulative targeted amount was Rs 54,300/- crores against which only Rs 20,321 crores (i.e., 37 per cent of the target) could be achieved during the period. Critics have pointed out for such poor performance of disinvestments that the government carried out the whole exercise of disinvestments in a hasty, unplanned and hesitant way. Thus, it failed to realize not only the best value but also the other objectives of the disinvestments programme. Therefore, the government has shifted focus to strategic sales of loss making PSUs by the turn of the current century. As per National Common Minimum Programme (NCMP) of the present government, all privatizations will be considered on a transparent and consultative case-by-case basis. The Government will retain the profit making PSEs and selected some of them would be encouraged to raise resources from the capital market as well. It is also stated that while every effort will be made to modernize and restructure sick public sector companies and revive sick industry, chronically loss-making PSEs will be either sold-off or closed, after all workers get their legitimate dues and compensation (*Economic Survey*, 2004-05). Table 3 presents the disinvestments target and achievement during 2000-01 to 2004-05 to know the latest trend.

Table – 3

Disinvestments in Public Sector Enterprises in India, 2000-01 to 2004-05

Year	Target (Rs in crores)	Achievement (Rs in crores)
2000-01	10,000	1,871
2001-02	12,000	5,632
2002-03	12,000	3,348
2003-04	14,500	15,547
2004-05	4,000	2,765*

* up to December, 2004.

Source: Department of Disinvestments, Ministry of Finance, Govt. of India.

The Government has decided to establish a Board for Reconstruction of Public Sector Enterprises (BRPSE) to advise the Government on ways and means for strengthening PSEs in general and to make them more autonomous and professional. The Board would consider reconstructing- financial, organizational and business – of central PSEs and suggests ways and means for funding such schemes. The Board would also advise the Government on disinvestments/closure/sale in respect of chronically sick/loss making companies, which cannot be revived.

2.5 WTO AND ITS IMPACT ON THE INDIAN ECONOMY

Being a member, India will have to follow the decisions of the WTO. Therefore in this particular segment we make an attempt to discuss the impacts of WTO on Indian Economy:

- a) On agriculture: To supervise the globalisation operation of various economies and settle their trade related mutual disputes, GATT henceforth is replaced by the WTO having an independent machinery of consultation, evaluation, implementation, negotiations and punishment. There are four major provisions of the GATT

accord relating to agriculture namely: (a) Reduction in domestic support; (b) Market access; (c) Trade Related Intellectual Property Rights (TRIPS); and (d) Sanitary and phyto-sanitary provisions. A potentially negative consequence of the proposals is that developing countries will be more constrained in setting up supportive measures or the agricultural production.

- b) Seed Patent Law: In agriculture, the most crucial areas which are likely to be affected by the TRIPS agreement are patenting of plant varieties and genes. By joining the WTO, it is necessary for India to modify the Indian patent laws to conform with the provisions of the TRIPS agreement.
- c) India's Agriculture R & D: One of the claims made in favour of the TRIPS is its likely impetus or stimulation to agricultural research. One of the areas where modern science has created an impact is on bio-technology application in agriculture.

The planners and political leadership of India exude optimism on the likely benefit India could reap from the agreement on agriculture, embodied in the Final Act by the member countries of the WTO, comprising all sectors, the export figure of India in 1994-95 was 26 billion dollars which is expected to grow to 72 billion dollars by 2001 with significant contribution from the agriculture sector. It is true that India has built up a massive reserve of food grains, estimated at between 35 and 40 million tones.

India has remained a marginal player in world agricultural trade. Currently, it has a share of less than one per cent of world market in agriculture. The share of agricultural products including coffee, tea and fisheries in the total exports of India was around fifteen per cent in the year 1999-2000. In recent years India has recorded an increase in the export of rice (both basmati and non-basmati) with India contributing over ten per cent of the international trade in rice.

With the WTO regulations coming into force in phases, it is time that our agricultural sector gears up to face the competition from other emerging and developed economies of the world. The Government has initiated few steps and revitalized policies, which should give thrust to agricultural production in the country and induce export competitiveness of our agricultural products. A brief on policy developments announced so far.

As agriculture constitutes a vital segment of the Indian economy, finding greater market access for India's agricultural products, especially in the developed country markets, would therefore, be one of the important issues during the negotiations. Food security of our people, protection of the interests of domestic farmers and their livelihood as well as the need for export maximization will be the guiding principles during the years to come.

Moreover, India can continue with all its developmental schemes under the WTO Agreement on Agriculture. These include our subsidies for research, pest and disease control, marketing and promotion services, infrastructural services, including capital expenditure for electricity, roads and other means of transport, marketing and port facilities, irrigation facilities, drainage systems and dams etc. For developing countries like India, there are some agricultural subsidies, which are also permissible and need to be reduced. These are investment subsidies which are generally available to low income and resource poor farmers. The government has recently announced the first ever National Agricultural Policy in agriculture, which is an important step to keep pace with the WTO agreement.

(d) On Small Enterprises in India :

The umbrella of the WTO is likely to create some far-reaching implications for the small enterprises in India, specifically with

regard to their competitive ability and integration with the global markets. The small enterprises here should not be viewed in limited terms as Small Scale Industries (SSI) defined in terms of investment in plant and machinery (currently not exceeding Rs. 10 million) but should cover the entire village and small industries sector including handicrafts, handlooms, coir, sericulture, powerloom, khadi and village industries in other words, a large segment of unorganized manufacturing sector. Most of the problems arise due to the unorganized nature of this sector, lack of data and information, use of low technology sometimes obsolete technology and poor infrastructure in the country. WTO will affect all types of small enterprises whether producing for the domestic market or for the international market.

The SSI sector which produces over 7500 items will have to be aware of the patents of products including even of technological patents, trademarks, industrial designs, etc. 98 per cent of the SSI units are in the nature of tiny/micro enterprises and are weak. Many of them are one-man show. This is more so in the case of traditional industries, which are generally artisan based, use local skills and resources and sell their products locally. Traditional industries mostly cottage based involve lower level of investment in machinery and provide large parttime employment. The tiny units defined as one having investment in plant and machinery not exceeding Rs. 2.5 million also find them-selves near traditional industries with one difference of providing mostly full- time employment. Their capital base is poor and do not have access to the economies of scale. Their bargaining power is low and do not have access to information and modern management practices. They constitute most vulnerable segment of the SSI sector. Hence, they will need to be guided and supported.

e) Pharmaceuticals: India has one of the most efficient pharmaceutical industries in the world. Pharmaceutical firms grew mainly thanks to the absence of patent protection of medical drugs in

the country. For instance, Indian companies are now producing their own AIDS drugs, which are available cheaply, compared to the original products from foreign countries.

But the imposition of the new WTO rules will begin to threaten India's achievements in the pharmaceutical field. The Indian Patents Act, introduced in 1970, boosted Indian pharma companies. The Act allowed them to develop and patent alternative processes for products discovered and patented elsewhere. According to the Indian Drug Manufacturers' Association, self-sufficiency in Indian pharmaceutical sector is more than 70 per cent and the country is famous for low priced quality products. But now the rules of the game in the pharmaceutical industry will change as India has committed to toe the WTO line on product patents. Product patent rules and Exclusive Marketing Rights (EMR) under the WTO could effect a paradigm shift in India's pharma majors. As per the EMR provision, a product for which original patent was granted prior to 1995, is not fit for an EMR in the country. This has forced nine leading domestic pharma companies to form the Indian Pharmaceutical Alliance that has demanded a more transparent WTO regime for EMR grants.

f) Information technology: Under the Information Technology Agreement signed under the WTO, Indian hardware and software companies can become major players in the value-added arena. Availability of high skilled IT personnel and low cost of labour and operation will allow India to compete in the international market.

g) Textiles and clothing: The WTO agreement on textiles and clothing states that the Multi-Fibre Agreement (MFA) will eventually be eliminated. MFA at present groups the major importer countries -- the United States, Austria, Canada, the European Community, Finland and Norway -- who apply restrictions by way of quota. Exporting countries like India are a part to the MFA. The

phasing out of MFA will boost textile exports from India. It will also increase investment in textiles and joint ventures. But the risk is that as India opens up its market from next month, import of textiles and clothing will considerably increase from countries like China, the United States, Taiwan and Indonesia. This will force many textile manufacturers to modernize their mills and improve quality.

h) Liquor companies: Indian liquor companies are anxious. Once the quantitative restrictions are removed on April 1, the import tariffs on bottle-in-origin liquor brands will vanish. Currently the import tariff is pegged at 233 per cent. But as per the WTO regulations, the government will be forced to slash import duties on foreign liquor brands. This will considerably affect domestic liquor companies. Domestic liquor companies have been urging the government to allow the present tax structure continue till 2003 and then reduce it in a phased manner to 150 per cent by the year 2006. But multinational liquor companies like Seagram, Bacardi-Martini and UDV are in favour of lowering the import tariff along with the removal of quantitative restrictions. An official in the UB Group, which controls 25 per cent of the liquor market in India, admits that the new WTO regime is a threat to the domestic industry.

"Our fear is that multi-national liquor firms will flood the Indian market with cheap, second-hand products once the import curbs are removed," he said. So the liquor companies are not sitting cool. They are gearing up to meet the global challenge as Indian markets open up. They are busy charting new business plans to ensure that the local brands survive ultimately.

i) Services sector: As per the WTO rules, two obligations apply to all services. They are the Most Favour Nation (MFN) treatment and transparency by way of publication of all laws and regulations. This in other words means that areas like banking, insurance, investment banking, health, and many other professional services that are

opened up will be bound by the WTO commitments. India will have to open up its services sector to other WTO member countries. The result: many overseas service providers will enter into the services sectors in the country, thereby reducing the chances of domestic enterprises. But experts believe India need not be frightened of the WTO rules on services because the country at present has a distinct competitive advantage in many areas that include health, engineering construction, computer software and other professional services.

Check Your Progress: 2

1. When did Indian economic reform started?

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2. What is meant by the disinvestments of the public sector undertakings?

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2.6 LET US SUM UP

This unit deals with the meaning of liberalization, privatization and globalization. The process of liberalization, privatization and globalisation has been started in different countries since the last quarter of the twentieth century and India also adopted a series of reform measures in this regard from 1991. The basic objectives of globalisation are to increase world output, employment and trade so that all the countries of the world can share the benefits. Liberalization refers to the opening up of the economy. Privatization refers to the sale of state-owned enterprises and services to the private sector. The term globalization can be defined as a process relating to integration of economies and societies through cross country flows of information, ideas, technologies, goods, services, capital, finance and people. We further discuss about the disinvestments in public sector undertakings: rationale, features and assessment; and impact of WTO on Indian Economy.

Key Words

Liberalization: Liberalization refers to the opening up of the economy.

Trade Liberalization: The term trade liberalization refers to market opening measures and they can take various forms namely: Reduction of tariffs and non-tariff barriers; Deregulation of domestic regulatory measures including liberalization e.g. relaxation of investment and capital flows between countries; Enhanced transparency of trade policies/regulations; and Trade facilitation measures.

Privatization: Privatization refers to the sale of state-owned enterprises and services to the private sector.

Globalization: The term globalization can be defined as a process relating to integration of economies and societies through cross country flows of information, ideas, technologies, goods, services, capital, finance and people.

Suggested Readings

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2. Indian Economics: Mishra & Puri, Himalaya Publishing House, Mumbai.
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