



## INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE, ECONOMICS AND MANAGEMENT

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## ROLE OF FDI IN INFRASTRUCTURE DEVELOPMENT IN INDIA

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### ABSTRACT

*Inflow of Foreign Direct Investment (FDI) in the infrastructure sector has brought about a host of changes in the economy, including putting an end to a large number of government regulations and has given birth to innovative schemes of financing infrastructure projects. India is now the third most favoured destination for FDI, behind China and USA. In fact, UNCTAD has said that India is one among the dominant host countries for FDI in the Asia-Pacific region. Times have been really changing as far as this theme of foreign participation is concerned. However, all said and done, unless there are clear policy instructions with respect to the prioritizing of infrastructure projects and reform of the supportive institutional framework (basically the law and judiciary), invitation to any kind of capital, especially the one from foreign sources, will of no use. In this view, this paper endeavours to give an overview about the infrastructure development in India since the inception of the first five year plan. The paper in essence focuses on the role of FDI in the infrastructure development in India especially since the Liberalisation, Privatisation and Globalisation era. It also seeks to highlight the sectors in which FDI investments have taken place over the past decades and the changing pattern of FDI investments with respect to the sectors in which the investments are made. The study is broadly based on secondary data and the paper has its significance to the academicians, industrialists as well as to the policy makers.*

### KEYWORDS

Foreign Direct Investment, Five Year Plan, Infrastructure Development.

### INTRODUCTION

Infrastructure is generally a set of interconnected structural elements that provide the framework supporting an entire structure. The term has diverse meanings in different fields, but is perhaps most widely understood to refer to roads, airports, and utilities.

The U.S. National Research Council (NRC) committee cited infrastructure as "...both specific functional modes - highways, streets, roads, and bridges; mass transit; airports and airways; water supply and water resources; wastewater management; solid-waste treatment and disposal; electric power generation and transmission; telecommunications; and hazardous waste management--and the combined system these modal elements comprise. A comprehension of infrastructure spans not only these public works facilities, but also the operating procedures, management practices, and development policies that interact together with societal demand and the physical world to facilitate the transport of people and goods, provision of water for drinking and a variety of other uses, safe disposal of society's waste products, provision of energy where it is needed, and transmission of information within and between communities."

Using a combination of these perspectives, Infrastructure can be structured across the five groups suggested below:

- Group A: Rural Infrastructure: Irrigation, rural connectivity (roads, power, IT), cold chains and mandis, drinking water.
- Group B: Core Infrastructure: Transportation (roads, railways, airports, sea ports, inland waterways); energy (generation, transmission, distribution).
- Group C: Urban Infrastructure: Water, sanitation, sewerage, LRT/MRT/MTS, city-energy distribution, terminals and logistics parks.
- Group D: Land-Intensive: SEZs, industrial parks, new townships, industrial cluster development, IT parks.
- Group E: Social Infrastructure: Healthcare, education, leisure and entertainment, retail, tourism, housing, exhibition and convention centres, hospitality.

Currently there is no clear definition of infrastructure according to the Government of India's Committee on Infrastructure (CoI). However, the CoI examined various Indian statutes that refer to infrastructure to compile a formal list which includes the telecom and power sectors among many others. Surprisingly, the list does not include important sectors of social Infrastructure such as educational institutes or healthcare, which are important for an overall development of the country.

India is growing at a reasonably high pace we can say that because the GDP growth rate for the year 2007-08 was 8.7% which was higher than Singapore which was at 7.7% and USA was far behind at 2.7%. India has been projected to be second largest economy globally by the year 2050. In order to cope up with this level of growth large increase in infrastructure investments will be required. As per the Government of India, Committee on Infrastructure, India's Per Capita Infrastructure Investment Spending for the year 2007 was only USD 41 per annum, which is quite low as compared to China and Brazil which have it at USD 408 and USD 92 respectively. The Gross Capital Formation in infrastructure as percentage of GDP for the year 2007 was approximately 5% but for the future it should be approximately 8% to 9% in order to meet the requirement in infrastructure sector for financial years 2011 and 2012. There are opportunities across all infrastructure sectors and which can be seen from the table No. 1 given below:

**TABLE NO. 1: TABLE SHOWING OPPORTUNITIES IN INFRASTRUCTURE SECTOR INVESTMENT IN INDIA (in USD Bn)**

Key Sectors	Estimated Investment (FY08-12)
Airports	8
Gas	5
Irrigation	54
Ports	18
Power	150
Railway (incl.MRTS)	63
Roads	76
Storage	5.5
Telecom	65
Water Supply & Sanitation	49
Mining	125

Source: Government of India, Committee on Infrastructure

Looking at the above table we can see that India's Power sector requires the largest investment with nearly USD150 Bn, in power generation as well as transmission and distribution. This is followed by Mining sector which accounts for approximately USD 125 Bn. Significant investment of more than USD 76 Bn, are planned for upgrading the road network. Accordingly, there are other sectors in which also huge investments are planned. Moreover, these opportunities will create demand for financial services, real estate, education and training, advisory and professional services, electronic and IT systems, power equipment, transport equipment, etc.

Foreign Direct Investment (FDI) refers to investment in a foreign country where the investor retains control over the investment. It typically takes the form of starting a subsidiary, acquiring a stake in an existing firm or starting a joint venture in the foreign country. In India as per the rules of liberalization, FDI comes through five routes. These are government (AIA/FIPB) route, RBI (automatic route), NRI investment, and acquisition of shares of unincorporated bodies. Foreign Direct Investment plays an important role in the long-term economic development of a country not only as a source of capital but also for enhancing competitiveness of the domestic economy through transfer of technology, strengthening infrastructure, raising productivity and generating new employment opportunities. While the Government encourages, and indeed welcomes FDI in all the sectors where it is permitted, it is especially looking for large FDI inflows in the development of infrastructure.

India is in the global arena for increased foreign investment termed Foreign Institutional Investment (FII) - and Foreign Direct Investment (FDI). While its size and growth potential make India attractive as a market, the most compelling reason for investors to be in India is that it provides a high Return on Investment (ROI). India is a free market democracy with a legal and regulatory framework that rewards free enterprise, entrepreneurship and risk taking.

Foreign investment is welcome in almost all the areas, except those of strategic concern (for instance, defense and atomic energy) and generally 100% FDI under automatic route is permitted. In such a changed investment climate, India is offering attractive business opportunities in virtually every sector of the economy. In order to encourage flow of investment into the country, the Government of India has set up several investments facilitation agencies, which include:

- Foreign Investment Promotion Board (FIPB)
- Foreign Investment Implementation Authority (FIIA)
- Investment Commission (IC)
- Secretariat for Industrial Assistance (SIA)
- India Brand Equity Foundation (IBEF)

Inflow of FDI in the infrastructure sector has brought about a host of changes in the industry, including an end to large number of government regulations and has given birth to innovative schemes of financing infrastructure projects. India is now the third most favoured destination for FDI, behind China and USA. In fact, the United Nations Conference on Trade and Development (UNCTAD) has said that India is one among the dominant host countries for foreign direct investment in the Asia Pacific region. Times have been really changing as far as this theme of foreign participation is concerned. However, all said and done, unless there are clear policy instructions with respect to the prioritizing of infrastructure projects and reform of the supportive institutional framework (basically the law and judiciary), invitation to any kind of capital, especially the one from foreign sources, will be of no use.

## METHODOLOGY

### OBJECTIVES

1. This paper endeavors to give an overview about the infrastructure development in India since the inception of the first five year plan.
2. The paper also seeks to highlight the sectors in which FDI investments have taken place over the past years; it also tries to give the state-wise FDI inflows and country-wise FDI inflows.
3. The paper in essence focuses on the opportunities of FDI in the infrastructure sector in India in the near future and raises the issues and concerns, which are adversely affecting the FDI inflows into India.

### DATA SOURCE

The data used for the study is secondary and has been collected from various journals, newspapers and the internet.

### LIMITATIONS OF THE STUDY

- The study is based on secondary data and hence it may be affected by the limitations inherent in the secondary data.
- The study mainly focuses on the FDI in the infrastructure sector and hence is restricted to the said sector only.

## OVERVIEW OF INFRASTRUCTURE DEVELOPMENT IN INDIA SINCE THE INCEPTION OF FIRST FIVE-YEAR PLAN

Five Year Plans have always occupied a significant position in shaping India's economy. India has completed ten Five-Year Plans (FYP) and is currently implementing the Eleventh Plan. A FYP is considered as a general forecast of what the government intends to do to bring about economic development and providing continuity irrespective of the Government in power. It acts as a guideline/roadmap to the policies and programmes that would be framed to achieve the desired objective of growth, employment, self-reliance and social justice.

This part of the study traces India's focus on infrastructure developments since the first Five-Year plans, integrated into pre and post liberalization era with special emphasis on the eleventh five year plan.

### PRE-LIBERALISATION ERA

From 1951 (launch of First Five Year Plan) till 1991, the growth rate had been about 3.5%. The population grew at about 2.5%. With dismal growth and rapidly expanding population, poverty multiplied and unrest grew louder. Most plans fell short on their targets either due to missing investments or monies wasted on money gobbling heavy industry. It is well known that from 1951 to 1991, Indian policy-makers stuck to a path of centralized economic planning accompanied by extensive regulatory controls over the economy. The strategy was based on an 'inward-looking import substitution' model of development. This is evident from the design of the country's Second Five-Year Plan (1956-61), which had been heavily influenced by the Soviet model of development. Several official and expert reviews undertaken by the government recommended incremental liberalization of the economy in different areas, but these did not address the issues facing the infrastructural development of India.

In the pre-liberalization period, infrastructural problems were not the primary impetus or focus of the five-year plan policies till the mid of 1991. The agenda for reforms in the early years was mainly dominated by crisis management accompanied by the need for domestic and external stabilization. The primary motive was on reducing fiscal deficit thereby restoring macroeconomic stability and introducing a package of efficiency oriented reforms aimed at deregulating the domestic economy, reforming trade and exchange rate policies and liberalizing foreign investment policy. Thus we find that at the start of the reform programme infrastructure development was not a significant constraint on the short-term economic performance because there was a slack in the system with a considerable scope for expanding supplies of infrastructure services in the short-run through better utilization of existing capacity. (Ahluwalia and Little, 2005).

1989-91 was a period of political instability in India and hence no five year plan was implemented and between 1990 and 1992, there were only Annual Plans.

The first articulation of a strategy for infrastructural development as a part of the reform programme was introduced in the 8<sup>th</sup> five year plan which was established at the end of 1992. Thus we find a paradigm shift of the traditional perception of relying completely on the public sector as the natural supplier of infrastructure services towards a positive reliance & preference for private sectors wherever possible. The reason of this shift mainly rested on the lag in ruthless efficiency and the quality of services that was provided by the public sector. It was just opening up the doors for the private participation in infrastructure development but during this process private participants faced a number of problems mainly related to political, governance and institutional constraints. These were making the job of private participants somewhat difficult.

But gradually with the air of globalization and liberalization the government is getting motivated for attracting more private investment and private participation in infrastructure development. Earlier private participation along with public participation was encouraged in power and telecommunications but later road

sector and gradually airways, railways, ports, sector etc are being opened to private sector. As it is a well accepted fact that public or budget funding is not adequate in meeting the burgeoning infrastructural needs so the government has to look for other sources of financing.

#### POST-LIBERALISATION ERA (1991-2001)

In the post liberalisation period (i.e. after 1991), India's infrastructure has been expanding at an accelerated pace to support the economic growth rate of over 9 per cent. The growth has continued apace during the 2007-08 fiscal, with the six core-infrastructure industries growing at the rate of 6.9 per cent during April-September 2007. Significantly, electricity recorded a growth rate of 7.6 per cent compared to 6.7 per cent in the same period last year. Other sectors recording major growth include: petroleum refinery products (9.8 per cent), cement (8.3 per cent) and finished (carbon) steel (6.6 per cent).

According to a consultation paper circulated by the Planning Commission, a massive US\$ 494-billion of investment is proposed for the Eleventh Plan period (2007-12), which increased the share of infrastructure investment to 9 per cent of GDP from 5 per cent in 2006-07. This translates roughly into US\$ 40 billion of annual additional investment.

The projected sector-wise shares are: 30.4 per cent in electricity, 15.4 per cent in roads and bridges, 13.7 per cent in telecommunications and 12.4 per cent in railways among others. Significantly, 30 per cent of the total investment is expected to come from the private sector (including public-private partnership).

For this, the Government has already taken many proactive measures such as opening up a number of infrastructure sectors to private players, permitting foreign direct investment (FDI) into various sectors, introducing model concession agreements, taking up projects such as the National Highway Development Project and National Maritime Development Programme among others. Some of the projects planned for the next five years include:

- Additional power generation capacity of about 70,000 MW
- Construction of Dedicated Freight Corridors between Mumbai and Delhi, and Ludhiana and Kolkata
- Capacity addition of 485 million MT in major ports, 345 million MT in minor ports
- Modernization and redevelopment of 21 railway stations
- Development of 16 million hectares through major, medium and minor irrigation works
- Modernization and redevelopment of 4 metro and 35 non-metro airports
- Six-laning 6,500 km of Golden Quadrilateral and selected National Highways
- Construction of 1,65,244 km of new rural roads, and renewing and upgrading existing 1,92,464 km covering 78,304 rural habitations

### PERFORMANCE, REQUIREMENTS AND RESOURCE CONSTRAINTS

#### PERFORMANCE

Performance of physical infrastructure in Indian economy in last one and half decades has been mixed and uneven. Table 2 provides the latest achievement of India's physical infrastructure sector. Over years, India's soft infrastructure grew much faster than the hard infrastructure. For example, India's rising trade has been reflected in growing container port traffic, which increased from less than a million in 1991 to about 5 million in 2005 with an annual growth rate of about 266 percent since 1991. In contrast, hardware components, like railways, roadways and airways, witnessed little expansion in last one and half decades. In general, performances of these sectors (hardware) are nevertheless poor, when counted their densities in terms of country's surface area or population. Densities in terms of access or spread of rail and road length clearly indicate that road sector has been successful, compared to railways, in spreading the network as well as providing an access in the economy.

TABLE NO. 2: OVERVIEW OF PHYSICAL INFRASTRUCTURE

Particulars	1991	2000	2005	AAGR(%) (1991-2005)
Railway length (1000km)	62.46	62.76	63.47	0.13
Road Length (million km)	2.35	3.32	3.85	5.32
Fixed Line and Mobile Phone Subscribers (per 1000 people)	7	36	128	150.35
Air Freight (million tons per km)	493.10	547.65	773.22	4.73
Air passenger Carried (million)	10.72	17.30	27.53	13.07
Air transport, registered carrier departures worldwide (million)	0.12	0.20	0.33	14.89
Container Port traffic (million TEUs)	0.15	2.45	4.94	266.01
Electric power Consumption (kWh per capita)	295.02	402.02	457.32	4.58
Electric Power Consumption (kWh)	255.65	408.42	493.78	7.76

Note: AAGR – Annual Average Growth rate(%) for the period 1991 to 2005

Source: World Development Indicators CD ROM 2007, World Bank

What follows is that software part of India's physical infrastructure (like telecom, air and port services) performed well, thus not only helped the country to maintain a faster growth but also integrated the economy with the world market at a faster pace. At the same time, the hardware component of the country's physical infrastructure (e.g. road, rail, power) comparatively grew slowly, thus negated the country's development process.

#### REQUIREMENTS

The infrastructure investment has increased in the past few years, driven by government initiatives and private participation, but that need to be escalated in coming years. Some of the important infrastructure investments are given in Table 3. The Government of India expects that 22-25 percent of the investment (of US\$ 384 billion) required is to come from private sector (Government of India, 2007). According to the Committee on Infrastructure, headed by the Indian Prime Minister, these investments are to be achieved through a combination of public investment, public-private-partnerships (PPPs) and exclusive private investments, wherever feasible. To sum up, the Indian infrastructure space has gained much importance in the past few years, and provides immense opportunities for growth and development.

TABLE NO. 3: REQUIREMENT OF INFRASTRUCTURE INVESTMENTS IN INDIA DURING 2007-2011

Sectors	Anticipated Investments in 10 <sup>th</sup> FYP (2002-2007)	Projected Investment in 11 <sup>th</sup> FYP (2007-2011)	Percentage change
	US\$ billion		%
Electricity	70.5	150.4	111.3
Roads and Bridges	31.7	76.1	140.1
Telecom	22.5	65.1	189.3
Railways	20.3	62.2	206.4
Irrigation	32.1	53.1	65.4
Water and Sanitation	15.6	48.6	211.5
Ports	1.3	18.0	1284.6
Airports	2.1	8.5	304.8
Storage	2.3	5.5	139.1
Gas	2.1	5.0	138.1
<b>Total</b>	<b>200.5</b>	<b>492.5</b>	<b>145.6</b>

Source: Government of India (2007)



Therefore, it is clear that there is substantial infrastructure needs in infrastructure sector in India, which, in other words, also offers large investment opportunities. Many of the new investments (such as gas pipelines) seem to be viable on commercial terms and should be suitable for partnership with private investors. For many other infrastructure investments also Public-Private-Partnership (PPP) is emerging as the preferred instrument, where the private sector gets its normal financial rates of return while the public sector partner provides concessional funding based on the long-term direct and indirect benefits to the economy. New instruments such as Viability Gap Funding (VGF) through a special purpose vehicle (SPV) set up recently by the Government of India to fund mega infrastructure projects may be relevant for other Asian countries as well.

#### RESOURCE CONSTRAINTS FOR INFRASTRUCTURE INVESTMENTS

##### THE NEED FOR DEBT FINANCING

Infrastructure investment is a priority area for the Eleventh Plan, and close to half of this investment is to be financed by Debt. Yet many of the institutional channels for debt financing are not functioning effectively.

The total requirement of debt by the public and private sectors is likely to be Rs 988035 crore (US\$ 247.01 billion). However, the availability of debt financing for infrastructure during the Eleventh Plan is estimated at Rs 825539 crore or US\$ 206.38 billion. There is a funding gap of Rs 162496 crore or US\$ 40.62 billion for the debt component, the details of which are given in Table 4.

TABLE NO. 4: LIKELY SOURCES OF DEBT (Crores at 2006-07 price)

		2007-08	2008-09	2009-10	2010-11	2011-12	Total Eleventh Plan
1	Domestic bank Credit	49848	63207	80147	101626	128862	423691
2	Non-Bank Finance Companies	23852	31485	41560	54859	72415	224171
3	Pension Insurance Companies	9077	9984	10983	12081	13289	55414
4	External Commercial Borrowings (ECB)	19593	21768	24184	26868	29851	122263
5	Likely Total Debt Resources	102370	126444	156874	195435	244416	825539
6	Estimated requirement of Debt	131718	155704	187333	229571	283709	988035
	US\$ Billion	32.93	38.93	46.83	57.39	70.93	247.01
7	Gap between Estimated Requirement and Likely Debt Resources	29348	29260	30460	34136	39292	162496
	US\$ Billion	7.34	7.31	7.61	8.53	9.82	40.62

Source: Computation of the planning Commission

The required investment in infrastructure would be possible only if there is a substantial expansion in internal generation and extra-budgetary resources of the public sector, in addition to a significant rise in private investment.

A dynamic institutional structure consisting of a number of development finance institutions promoting a hierarchy of gestation period financing is needed; but the ideology of reforms has no room for the DFIS. Banks have not been encouraged to lend to the infrastructure sector and the corporate bond market is not active enough.

Considering the importance assigned to the sector, the institution of DFIS may have to be resurrected even if its benefits are derivable only in the medium term. It is also possible for banks to expand their existing asset-liability structure as there is a degree of permanence to many of their so-called short term liabilities. And the reform of the commercial bond market has to be undertaken on a war footing.

Therefore, in order to unleash India's full potentials, development of hardware component of India's physical infrastructure perhaps deserves utmost attention. This also indirectly indicates high investment potentials in roadways, railways, power and the associated components in India. At the same time India's development is incomplete without social development and that would require focus on the infrastructure strategy for social research India.

In view of the economic crisis on the one hand, and the perceived importance of foreign capital in the economic development of the country on the other, the Government of India has been making continuous efforts to attract foreign capital during the post-liberalization period. The efforts include providing concessions in taxes, announcing tax holidays and increasing the investment cap in various sectors of the Indian economy. According to the Reserve Bank of India (RBI), India has received total Foreign Direct Investment (FDI) inflows of \$50.1 bn since 1991. There has been tremendous progress in the various sectors of the Indian economy due to the inflow of foreign capital.

#### RELEVANCE OF FDI IN INFRASTRUCTURE DEVELOPMENT IN INDIA

##### FDI INFLOWS IN INDIA

Foreign Direct Investment (FDI) plays an important role in the economic development of a country. FDI inflows mean the investments which a country receives from other countries, which in turn, help the receiving country to have access to new technologies, capital, processes, management skills, etc. FDI inflows in a country can be in various forms such as direct acquisition of a firm, investment in joint venture, licensing of intellectual property, portfolio investment, etc. The most important potential gain for a firm from FDI is increased competitiveness.

India needs huge investments to fuel economic growth. Massive funds are required for a range of sectors including food, health, education, energy and infrastructure. And to meet this requirement FDI inflows play a major role. According to the World Investment Report 2006 brought out by UNCTAD, India gets only 0.8 percent of global FDI flows and less than three per cent of the total FDI flows from the developing countries. This is reportedly due to procedural hassles and poor governance. Department of Industrial Policy and Promotion (DIPP) under the Ministry of Commerce and Industry, the Reserve Bank of India (RBI) and the Foreign Investment Promotion Board (FIPB) under the Ministry of Finance, government of India are the nodal government agencies directly involved with foreign direct investment issues and are engaged in policy formulation for FDI, procedures and clearance of FDI proposals, etc. In its draft approach paper, the planning commission has said that the level of FDI inflow is much below the country's potential and the nation needed to attract USD \$15 billion worth of FDI in the 11<sup>th</sup> Five Year Plan period.

The FDI Inflows for the years 1996-97 to 2004-05 are given in the below table No. 5. The table also gives the year on year percentage growth of FDI.

TABLE NO. 5: SHOWING FDI INFLOWS INTO INDIA

Years (April to March)	FDI Inflows (USD Mn)	Percentage growth of Total FDI
1996-97	2821	--
1997-98	3557	26.09
1998-99	2,462	-30.78
1999-00	2,155	-12.47
2000-01	2400	11.37
2001-02	4095	70.63
2002-03	5,035	22.96
2003-04	4673	-7.19
2004-05	5652	20.95

Source: RBI Annual Reports from 1996-97 to 2004-05

From the above table we can see that there is negative growth in only three years and that too is reducing over a period of time. As can be seen from the table the FDI Inflows have approximately doubled in 2004-05 as compared to 1996-97.

According to a report released by the RBI, entitled 'International Investment Position (IIP) of India', it was highlighted that the FDI inflows into the country outpaced portfolio investment by almost US \$5.6 billion in 2006-07. It further said that the FDI inflows in 2006-07 reached a level of US \$21.19 billion. The findings pointed out that during 2003-04 and 2004-05, portfolio investments were much higher than FDI inflows. In 2003-04, FDI inflows were US \$6.32 billion as against portfolio investment US \$12.01 billion. Similarly in 2004-05, FDI inflows were lower at US \$6.64 billion as compared to portfolio investment of US \$8.94 billion.

The foreign direct investment (FDI) inflows during 2008-09 (from April 2008 to March 2009) stood at approx. US\$ 27.3 billion, according to the latest data released by Department of Policy and Promotion (DIPP). FDI inflows for the last quarter alone of 2008-09 stood at approx. US\$ 6.2 billion.

#### CATEGORY-WISE FOREIGN INVESTMENT IN INDIA

The below given table gives the category-wise Foreign Investment for the period 1996-97 to 2004-05, the Foreign Investment is broadly divided into two parts viz., Direct Investment and Portfolio Investment. On the whole the total FDI Inflows show an increasing trend. Inflow of FDI was USD2400Mn in 2000-01 it then increased to USD 4095 Mn for the year 2001-02. The increase in the inflow of FDI was primarily due to the liberalization of the foreign investment policies. FDI Inflows increased for the year 2002-03, 2003-04 and 2004-05. On the other hand there is also increase in the Portfolio Investment which was only USD 3312 Mn in 1996-97 to USD 9315 Mn in 2004-05. The total Foreign Investment in India was USD6133 Mn in 1996-97 which increased to USD 14967 Mn for the year 2004-05.

TABLE NO. 6: TABLE SHOWING CATEGORY-WISE FOREIGN INVESTMENT IN INDIA (in USD Mn)

Category	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Direct Investment	2821	3557	2462	2155	2400	4095	5035	4673	5652
Portfolio Investment	3312	1828	-61	3026	2760	2021	979	11377	9315
Total Foreign Investment	6133	5385	2401	5181	5160	6116	6014	16050	14967

Source: RBI Annual Reports from 1996-97 to 2004-05

#### COUNTRY-WISE FDI INFLOWS INTO INDIA

India is receiving the highest FDI Inflows from Mauritius and the percentage of FDI Inflows from Mauritius to the total FDI Inflows is also seen to be rising in all the three consecutive years i.e. it was 21.53% for 2003-04, in 2004-05 it was 30% and for 2005-06 it was 46.48%. The other major countries are USA, Germany Singapore UK and Netherlands. The details of the same can be seen in the table No. 7 given below:

TABLE NO. 7: TABLE SHOWING MAJOR COUNTRY-WISE FDI INFLOWS INTO INDIA (in Rs. Crore)

Country	2003-04	2004-05	2005-06
Mauritius	2609	5141	11441
USA	1658	3055	2210
Germany	373	663	1356
Singapore	172	822	1218
UK	769	458	1164
Japan	360	575	925
Netherlands	2247	1217	340
Switzerland	207	353	426
South Korea	110	157	269
France	176	537	82
Total FDI Inflows	12117	17138	24613

Source: RBI Bulletin

Mauritius was again the highest contributor to FDI inflows for the fiscal year 2008-09 totaling almost US\$ 11.2 billion, while services sector including financial and non-financial services attracted the maximum amount of US\$ 6.1 billion during the same period.

Further, India achieved a substantial 85.1 per cent increase in foreign direct investment flows in calendar year 2008—the highest increase across all countries—even as global flows declined by 14.5 per cent, as per an UNCTAD study –'Assessing the impact of the current financial and economic crisis on global FDI flows'. The study also estimates that the FDI investments into India went up from US\$ 25.1 billion in calendar 2007 to US\$ 46.5 billion in calendar 2008. It also noted that some large emerging economies, such as Brazil, China and India, still remain favourable locations for FDI, particularly market-seeking FDI.

#### STATE-WISE FDI INFLOWS INTO INDIA

FDI in different states in India have increased steadily since the early 1990s when the Indian economy was opened up to foreign investments. Delhi, Maharashtra, Karnataka and Tamil Nadu are among the leading states that have attracted maximum FDI. The status of FDI in different states of India, during the period beginning from the year January 2000 to October 2006 corroborates the growth of Indian states in sync with the Indian economy. Some of the states in India which have witnessed a massive upsurge in FDI Inflows include Delhi (USD 6,780 million), Maharashtra (USD 5,650.1 million), Karnataka (USD 1,876.1 million), and Tamil Nadu (USD 1,876.1 million). Other states which are in the receipt of FDI Inflows in India include West Bengal, Gujarat, Haryana, Andhra Pradesh, Kerala, and Uttar Pradesh.

TABLE NO. 8: SHOWING STATE-WISE FDI INFLOWS (in USD Mn)

State	FDI Inflows (For the period Jan 2000 to Oct 2006)
Maharashtra	5650.1
West Bengal, Sikkim Andaman & Nicobar	334.8
Karnataka	1876.1
Gujarat	898.8
Haryana and Delhi	6780.0
Tamilnadu	1876.1
Andhra Pradesh	1061.4
Kerala & Lakshadweep	75.1
Uttar Pradesh and Uttranchal	3.3

Source : <http://business.mapsofindia.com/fdi-india/sectors/>

A trade facilitation body UK-India Business Council (UKIBC) survey has ranked Pune as the most suitable place for British investments in India. The survey report, titled 'Opportunities for UK Plc in Emerging Cities in India', also rated eight other cities—Ahmedabad, Chandigarh, Jaipur, Goa, Indore, Kochi, Nagpur and Vadodara—as the most conducive destinations for UK investments in India.

A recent Ernst & Young study predicts Mumbai and Bangalore to be the next global centres of investment along with Shanghai.

#### INDUSTRY-WISE FDI INFLOWS INTO INDIA

The top sectors attracting highest Foreign Direct Investment (FDI) inflows into the country are: electrical equipments, services sector (financial and non financial), telecommunications, transportation industry, fuels, chemicals, construction activities, drugs and pharmaceuticals, food processing, cement and gypsum products. Huge investment potential exists in the upcoming Knowledge Process Outsourcing (KPO) sector and the real estate industry.

The major sector attracting FDI Inflows is the electrical equipments which also includes computer software and electronics. For the years 2003-04, 2004-05 and 2005-06 on an average this accounts for 22.70% of the total FDI inflows into India. If we take the year 2005-06 then this sector accounts for about 26.40% of the total FDI inflows into India. Other sectors such as telecommunications and services sector are also having a reasonable amount of FDI inflow. The industry wise details of FDI inflows are given in the table below:

**TABLE NO. 9: TABLE SHOWING MAJOR INDUSTRY-WISE FDI INFLOWS INTO INDIA** (in Rs. Crore)

Industry	2003-04	2004-05	2005-06
Electrical Equipment (Incl. computer software and electronics)	2449	3281	6499
Telecommunications	532	588	3023
Services (Financial and Non-Financial)	1235	2106	2565
Chemical	94	909	1979
Cement and Gypsum	44	1	1970
Transportation	1417	815	983
Drugs and Pharmaceuticals	502	1343	760
Metallurgical	146	881	681
Fuel (Power and Oil)	521	759	416
Food Processing	511	174	183
<b>Total FDI Inflows</b>	<b>12117</b>	<b>17138</b>	<b>24613</b>

Source: RBI Bulletin

Apart from the above sectors the Indian retail market, which is the fifth largest retail destination globally, has been ranked the most attractive emerging market for investment in the retail sector by A T Kearney's annual Global Retail Development Index (GRDI), in 2009.

#### FDI STRATEGIC SECTORS IN INDIA

Today, the **automotive industry** of India has made its mark worldwide, making India the world's second largest manufacturer of two wheelers; fifth largest manufacturer of commercial vehicles and fourth largest passenger car market in Asia. It also manufactures the largest number of tractors in the world.

**Drugs and pharmaceutical** industry occupies an important place in the Indian economy. It has made tremendous progress in terms of infrastructure development, technology base creation and production. Today, the industry is manufacturing practically the entire range of the therapeutic products. It is also capable of producing raw materials for the manufacture of a large number of bulk drugs from the basic stage as well as pharmacy machinery and equipments. The industry has achieved global recognition as a low cost producer of quality bulk drugs and formulations. For the past few years the Indian Pharmaceutical Industry is performing very well. The varied functions such as contract research and manufacturing, clinical research, research and development pertaining to vaccines are the strengths of the Pharma Industry in India. Multinational pharmaceutical corporations outsource these activities and help the growth of the sector. The Indian Pharmaceutical Industry has been experiencing a vast inflow of FDI.

**The Indian IT and ITS industry** is expected to grow to \$148 billion by 2012. Over 25% p.a. CAGR expected over the next seven years. India aims to achieve a 50% share in the global off-shored IT and BPO services by 2008. The IT industry is one of the booming sectors in India. At present India is the leading country pertaining to the IT industry in the Asia-Pacific region. With more international companies entering the industry, the Foreign Direct Investments (FDI) has been phenomenon over the year.

In India, the **food processing industry** is one of the largest in terms of production, consumption and export prospects. The Ministry of Food Processing Industries is the main central agency responsible for developing such a vibrant food processing sector. Thus, there exist immense opportunities for investment in the Indian food processing sector arising from the fact that India is one of the major food producers in the world and has abundant availability of a wide variety of crops, fruits, vegetables, flowers, live-stock and seafood. This is reflected in the amount of FDI inflow into the sector which stood at Rs. 333.06 crores (US\$ 74.01 million-approx.) in 2005-06 and 2006-07 (till September 2006).

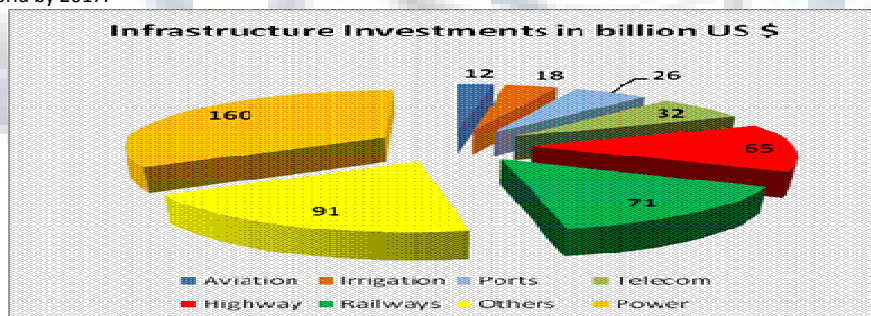
**Tourism** is one of the largest service industries in terms of gross revenue and foreign exchange earnings. In India, the tourism industry has the potential to grow at a high rate and ensure consequential development of the infrastructure.

In India, the six core **infrastructure** industries having a direct bearing on the infrastructural sector are crude petroleum; refinery products; electricity generation; coal; cement; and finished steel. The index of these infrastructural industries (having a combined weight of 26.7 per cent in the Index of Industrial Production), stood at 219.9 (provisional) and registered a growth of 7.2% in February 2007. The FDI inflow in the Cement Industry in India has increased with some of the Indian cement giants merging with major cement manufacturers in the world such as Holcim, Heidelberg, Italcementi, Lafarge, etc.

India's **telecommunication** network is the third largest in the world and the second largest among the emerging economies of Asia. It still continues to grow at an unprecedented pace and is one of the key sectors responsible for India's resurgent economic growth. The number of telephones has increased from 44.97 million (as on 31st March 2002) to 142.09 million (as on 31 March 2006) and 190 million (till December 2006) and 203 million (by February 2007). Also, the tele density in the country has steadily increased from 4.29% (as on 31st March 2002) to 16.83% (as on 31st December 2006). The rapid development of the telecommunication sector was due to the FDI inflows in form of international players entering the market and transfer of advanced technologies. The telecom industry is one of the fastest growing industries in India. With a growth rate of 45%, Indian telecom industry has the highest growth rate in the world.

#### OPPORTUNITIES FOR FDI IN INFRASTRUCTURE SECTOR IN INDIA

The robust current growth in GDP has exposed the grave inadequacies in the country's infrastructure sectors. The strong population growth in India and its booming economy are generating enormous pressures to modernize and expand India's infrastructure. The creation of world class infrastructure would require large investments in addressing the deficit in quality and quantity. More than USD 475 bn worth of investment is to flow into India's infrastructure by 2012. No country in the world other than India needs and can absorb so many funds for the infrastructure sector. With the above investments India's infrastructure would be equal to the best in the world by 2017.



Source: indiafraguru.com 2007-09

Major policy initiatives such as deregulation, viability gap funding, India infrastructure finance company, Committee on infrastructure, rural infrastructure programme, National urban renewal mission, public private partnerships, Launch of private sector infrastructure funds have been implemented in infrastructure sector.



**GOVERNMENT INITIATIVES**

In India, currently after the policy changes in February 2009, many sectors in manufacturing are open to 100 per cent FDI under the automatic route. FDI is allowed up to 100 per cent in all these industries except defence production where it is capped at 26 per cent. FDI is not allowed in a few services including retail trading (except single brand), lottery business and gambling. In the permitted services, foreign equity is allowed below 50 per cent.

FDI is currently allowed only up to 49 per cent in scheduled air transport services or domestic passenger airlines. Broadcasting services also have similar rules. Uplinking of non-news television channels is the only broadcasting service permitted to have 100 per cent FDI after clearance by the Foreign Investment Promotion Board (FIPB). Majority foreign equity is not allowed in cable television networks and direct-to-home (DTH) operations. FDI is allowed only up to 26 per cent in print media.

FDI is allowed up to 74 per cent in financial services such as private banks. Insurance, however, can get FDI only up to 26 per cent. Minority foreign equity up to 49 per cent is permitted in asset reconstruction companies (ARCs), stock exchanges, depositories, clearing corporations and commodity. Except for ARCs, the FDI space is capped at 26 per cent for these sectors. In telecommunication services—both basic and cellular—although FDI up to 74 per cent is allowed, only 49 per cent is allowed under automatic route with the rest requiring approval from FIPB.

Till 2012 planned infrastructure investment in India in some key sectors are (at current prices): Modernization of highways -US\$ 75 billion, Development of civil aviation US\$ 12 billion, Development of Irrigation system- US\$ 18 billion, Development of Ports-US\$ 26 billion, Development of Railways- US\$ 71 billion, Development of Telecom- US\$ 32 billion, Development of Power -US\$ 232 billion. Thus in the eleventh five year plan, investment in the above sectors (Aviation infrastructure, Construction infrastructure, Highway infrastructure, Power infrastructure, Port infrastructure, Telecom infrastructure) will be US\$ 384 billions (Rs 17,20,000 Crores) considering the huge infrastructure market potential in India. In addition to the above, investments to the tune of US\$ 91 billions have been planned in other infrastructure sectors like Tourism infrastructure, Urban infrastructure, Rural infrastructure, SEZs, and water infrastructure and sanitation infrastructure thus making the total infrastructure investments in the eleventh plan period 2007-08 to 2011-12 as US\$475 billions. Domestic and global infrastructure funds have exposure to Indian infrastructure sectors.

According to the findings of a survey conducted by the Federation of Indian Chamber of Commerce and Industry (FICCI), 70 per cent of foreign investors surveyed are making profits from their Indian operations. The survey notes that the perception about India as manufacturing base has reasonably improved. It further points out that foreign investors are most dissatisfied with the infrastructure situation of the country, with 54 per cent of the companies rating the condition of roads and highways as bad and 42 per cent rating the quality of ports and power facilities as bad.

**ISSUES AND CONCERN**

In the present scenario it is important that the required or desired level of infrastructure mainly physical, social and governance aspects should back the growth of India. The inequality in the level of infrastructural development in the different states of India is bringing a special challenge to the policy makers and researchers to recognize the radical fissures in Indian infrastructural system and bring about the innovative solutions specially related to its structuring, and financing modes and schemes thus giving Indian infrastructure a new 'renovated identity'. The attempts should also be made in identifying the economic value of infrastructural investment and thereby looking on the fact that whether additional infrastructure investments contributes to economic growth.

Elberts (2002) raised this key question of whether additional infrastructural investments on the margin contribute to economic growth. The other questions that can help in judging and defining the economic value of infrastructure investment comprise of – will investment

- Improve productivity?
- Contribute to value addition?
- Create new jobs?
- Improve environmental quality?
- Enhance quality of life?
- Improve low-wage workers' access to jobs?

The task of the policy makers do not end here, they are also responsible to look for financing modes, construction modes, designing of regulatory agency and assessment of the risks related to the project. In addition to these they must have a vision of maintenance part of the infrastructure build up. This shows the level of responsibility and management on the part of policy makers that they should strategize. For this the policy makers may look forward to the role of MNCs in boosting up economic development via narrowing infrastructural lacunae.

Achieving high volumes of private investment in infrastructure is not easy. It is necessary to develop an environment, which is both attractive to investors and also seen to be fair to consumers, especially since many (but not all) infrastructure projects have an element of monopoly. This calls for an environment in which either the market itself is competitive giving consumers a choice among different suppliers, as in the case with telecommunications or freight container carriers; or concessions are given to the most competitive bidders in an environment where regulatory system limits user charges to reasonable levels and regulations set appropriate standards of service as in the case of airports, ports and roads.

It is seen that except for a few large projects in a handful of cities, paucity of urban infrastructure projects is a standing problem. Although city mass transport systems and airports have found place in developmental plans, essential services such as roads, drinking water, sewerage management, drainage, and primary health are still greatly under developed.

Besides, even if allocation in the Infrastructure in India is raised with a greater inflow of FDI and a large participation of private sector, the immediate problem will still remain, since, infrastructure is subjected to long gestation period. Consequently, the inadequacy of infrastructure in India will continue for quite some time, unless technology upgradation can be done in the infrastructure production, including construction activities, for reducing the gestation lags and simultaneously improving the quality of products. With this infrastructure limitation any indiscriminate growth may lead the economy of the country to a situation of over-heating and a further rise in inflation.

In spite of the fact that India is strategically located with access to a vast domestic and South Asian market, its share in world's total flow of direct/portfolio investment to developing countries is dismally low. China, with GDP size 2.2 times of India, is able to attract 20 times the FDI inflow to India. Similarly, Singapore, Indonesia, Philippines, and Thailand also attract greater amounts of foreign investment than India.

Whether the trend toward private infrastructure is sustained will depend on transparent and competitive solutions that render price regulation unnecessary or, where that is not possible, price regulation that balances the interests of developers, consumers, and governments. Ultimately, it is in the developers' interest to help establish the system that will regulate their behavior. Such companies as AT&T of the United States, Germany's RWE, and Hong Kong's China Light and Power have actively helped to develop regulatory solutions, which allowed them to deflect pressure for nationalization.

Apart from the issues discussed above there are some major bottlenecks faced by India in attracting FDI's for Infrastructure development:

**DEBT**

Many of the institutional channels for debt financing are not functioning effectively. Banks have not been encouraged to lend to infrastructure sector and the corporate Bond market is not active enough.

**CORRUPTION**

Corruption accompanied by red-tapism remains one of the prime reasons that is responsible for keeping out the precious FDI from the country. In a study conducted by Transparency International on the annual corruption perception index (CPI), India's score has remained the same for two consecutive years at 2.7. In the same period Pakistan improved from 2.3 to 2.6 and China from 3.1 to 3.5. The higher the score, the less corrupt is the country.

**TAX BENEFITS**

Though India is trying to attract FDI by offering a lot of sops to the investors, it is not enough when we compare it to our competitors in the region. Apart from that, corporate India has a very high direct tax burden of 40 per cent while most of the East Asian countries have it in the range of 15 to 30 per cent. Even the

much-hyped SEZs (Special Economic Zones), which were conceived with the idea of offering tax benefits and world-class infrastructure, have not yet taken shape.

#### INFRASTRUCTURE

The former and the present governments' dedication to the 'golden quadrilateral' project is worthy of praise. But the project is not as yet complete because we have been unable to acquire land for it. When complete, it will connect the four major metros with wide silky highways. A freight corridor has also been proposed on similar lines. But even after months this project is still on paper. According to the India infrastructure report, we need to invest in the range of \$115-130 billion in the next five years to meet our infrastructural needs. Though it goes without saying that the pivotal role in arranging for such huge investment is to be played by foreign capital, it is worth seeing how the government is going to woo them, especially, when there have been no successful huge investments in the sector till now.

To top it all, our metros are pitifully deficient in providing a world-class experience to an average foreigner. Starting from locating road signs and public utilities to finding a place of interest or booking a railway ticket, everything is so tricky. A serious effort in town planning along with changing public outlook will go a long way in both attracting FDI and tourists.

#### CONCLUSION

Improving India's infrastructure would propel economic growth, create jobs, boost domestic consumption, lower costs and stimulate exports. If its infrastructure were better, the country's impoverished rural sector could even be transformed into a leading exporter. On the other hand, if infrastructure improvements continue to lag, foreign investment could stall and development would concentrate in service industries such as IT outsourcing. This would exacerbate income disparities, feed social pressures and raise the potential for unrest.

The definition of infrastructure for attracting FDI is related to physical, social, institutional and governance aspect. We need to establish a two-way link between FDI and infrastructural development. As infrastructure development can serve as a distinctive determinant to attract more FDI leading to economic development which in turn lead to the development of infrastructure sector with FDI acting as a mode of financing the projects and infrastructural industries. Although the scope of infrastructure is not just linked with FDI; it can also be viewed as a contributor for raising competitiveness among regions and countries.

Apart from this, provision of quality and efficient infrastructure services is essential to realize the full potential of the emerging Indian economy. Indian government's first priority is therefore rising to the challenge of maintaining and managing high growth through investment in infrastructure sector, among others. To sustain 9 percent growth, the Government of India has estimated that an investment of over US\$ 492.5 billion during the 11th Five Year Plan (2007-2012) is required. Therefore, there is substantial infrastructure needs in infrastructure sector in India, which, in other words, also offers large investment opportunities. Public-Private-Partnership (PPP) is emerging as the preferred instrument, where the private sector gets its normal financial rates of return while the public sector partner provides concessional funding based on the long-term direct and indirect benefits to the economy. New instruments such as Viability Gap Funding (VGF) through a special purpose vehicle (SPV) set up recently by the Government of India to fund mega infrastructure projects may be relevant for other Asian countries as well.

Economists believe that additional \$20 Billion a year for next ten years will drive up GDP growth additional 2 –3% from the current level of 6.5 –8%. If these monies arrive in form of FDI, it is good for the country. If it arrives in form of FII, it is still good, but it has to be controlled. Internal resources and withdrawal from foreign reserves, trade loans, long term financing from World Bank etc. will add additional luster to the investment plans.

All the above will happen, if the planned structural changes to the Indian economy are concurrently made and country's bureaucratic structure is made investor friendly. Other legislative changes needed to ensure the safety of investor's money are made concurrently. The recent changes in India's patent rules and regulation are steps in the right direction.

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