International Journal of Advanced Research in Management and Social Sciences

ISSN: 2278-6236

DEVELOPMENT AND GROWTH ORIENTATION OF INFRASTRUCTURE POLICY IN INDIA

Dr. Ravindranath N. Kadam*

Abstract: *Economic development and prosperity of an economy depends on the availability of infrastructural facilities. Infrastructure has the power to increase the productive capacity of the factors of production. The structure of an economy can be changed only by the infrastructure. The infrastructure facilitates all the sectors of the economy to speed up their growth rate. It lubricates and strengthens the engine of economic development.*

Infrastructure refers to the facilities and services which help the development and operation of the sectors of the economy. Social infrastructure and Physical Infrastructure are two types of infrastructures. Sufficient and efficient infrastructure facilities help the country to achieve faster development. Indian government has been spending huge amount of money for the development of different kinds of infrastructure services.

In this paper, attempt is made to study different infrastructure services. The study covers the policies relating to infrastructure from 1947 to 1991, after 1991, reforms in infrastructure in India, trends in growth rates of infrastructure sectors which includes road transport, railway transport, inland water transport, air transport, communications, banking sector, etc. also the paper contains importance of the study, objectives and methodology of the study. The study is based on secondary information and data.

Keywords: *Infrastructure, Productive Capacity, Reforms, Communication, Overheads, Modifications.*

*Associate Professor, Post Graduate Dept. of Studies & Research in Economics, Kuvempu University, P.G Centre, Kaduru, Karnataka State, India.

INTRODUCTION:

Economic development and prosperity of an economy depends on the availability of infrastructural facilities. Infrastructure has the power to increase the productive capacity of the factors of production. The structure of an economy can be changed only by the infrastructure. The infrastructure facilitates all the sectors of the economy to speed up their growth rate. It lubricates and strengthens the engine of economic development.

CONCEPT OF INFRASTRUCTURE:

Infrastructure refers to the facilities and services which help the development and operation of the sectors of the economy. There are two types of infrastructures, they are:-

i) Social infrastructure and

ii) Physical Infrastructure.

i) Social infrastructure:

Social infrastructure covers the supply of services to meet the basic needs of a society such as, education and training, health and sanitation, housing, drinking water, etc. These are also called as 'Social Overheads'. Without these services the economy cannot function smoothly. If these social overheads are ample in quantity and quality, no doubt the quality of human resource increases which is much necessary for faster development of the economy. Mahatma Gandhiji said that the healthy and good moral character citizens of the nation are the real property of the nation but not the gold or anything.

ii) Physical or economic infrastructure:

Physical infrastructures also called as economic infrastructure cover services like energy, irrigation, transport, telecommunication, banking, finance, and insurance, science and technology, etc. These infrastructural activities are directly needed for the production sectors such as agriculture, industry, trade, etc.

Smooth functioning of the economy, agricultural and industrial development, promotion of investment, employment generation, improvement in productivity, balanced regional development, social change growth of GDP, development of trade and commerce are some of the advantages of good quality infrastructure. Infrastructure increase internal economies and in turn increases the economic growth rate. Economic development and infrastructure have positive relationship.

SCOPE AND IMPORTANCE OF THE STUDY:

Sufficient and efficient infrastructure services lead to increase the speed of economic development of the country. Now a day the economic development is not the only intention of any economy but sustainable development is the objective and intention. Therefore the modern and welfare government of India has made modifications and reforms in the policies relating to infrastructure services for achieving intended goal. The government of India has been changing it's infrastructure policies according to changing time and needs in the interest of nation. Hence, it is essential to study the policies concerned with the infrastructure services to diagnose deficiencies if any and find the solutions to improve the said policies.

OBJECTIVES OF THE STUDY:

The study has following broad objectives, they are-

1. To know the necessity of infrastructure services for economic development.
2. To study the trends in the growth of infrastructure services.
3. To evaluate the infrastructure policies of the government of India.
4. To make suggestions for framing innovative policies concerned to infrastructure.

METHODOLOGY:

The present study theoretical and analytical based on secondary data and information. The data is collected from secondary sources and presented through the tables and analyzed.

INFRASTRUCTURE POLICY OF THE GOVERNMENT OF INDIA

FROM 1947 to 1991:

Young independent India wanted to develop her economy but the poor infrastructure was the greatest hurdle for that. As infrastructure requires heavy investment, it was difficult and not possible to any private investor to invest and develop infrastructure and provide infrastructural services for the economic development. On the one hand it was the government which had to do something for the development of infrastructure, as only the government can accumulate and invest required funds and in turn develop the economy. On the other the goal of the nation was to have 'socialist economy' therefore the government

did not want to give chance to private investors. India has chosen 'planning and economic development' technique for her economic development.

In the II nd plan the government of India aimed at rapid industrialization. Special focus was on the development of basic and heavy industries, such as, iron and steel, heavy chemicals, including nitrogenous fertilizers, heavy engineering and machine building industry. Then onwards government took positive steps for increasing infrastructure facilities. Therefore it started investing in multipurpose river valley projects for irrigation and electricity generation which can boost the agricultural and industrial development. The government by nationalizing commercial banks started diverting funds agriculture and small scale industries, which strengthen the financial infrastructure. Government by nationalizing commercial banks, insurance, railway and road transport; by increasing the number of post offices, schools and hospitals in rural and in urban areas; by extending services like rural electrification and rural telephone services; by developing rural roads, etc. took the responsibility of providing infrastructural facilities. This trend continued till 1991. During this period the role of public sector was vital in the supply of infrastructural services.

AFTER 1991:

Up to 1991, the government of India was the leader of providing essential infrastructural services. Now the Indian economy is open to the world, foreign investors are rushing to invest their funds. For getting advantage of large Indian market many foreign companies have entered the nation. Industrial, agricultural and service sectors are developing fastly. Because of WTO and the policy of LPG the competitiveness, production, movement of labour, etc, are increasing. Therefore the available infrastructure is falling short. To solve the problem of inadequacy the government has adopted denationalization and disinvestment policy. It is encouraging private Indian investors to invest in the infrastructural activities. The Task Force on Infrastructure was set up by Prime Minister's office in October 1998.

As a result of the policy of Liberalization, Privatization and Globalization, foreign banks, insurance companies, universities, etc. are taking the challenge of supplying the infrastructural services. Gradually the Indian government is passing the responsibility of providing infrastructural services to the private companies. Because of the liberal policy of the government, foreign agencies, international financial institutions, advanced countries, etc, the quality of infrastructural activities in India will definitely improve and gear up the

speed of economic development. The following table shows the trends in the growth rates of infrastructure.

REFORMS IN INFRASTRUCTRE IN INDIA:

Some of the recent schemes of the government, related to the infrastructural activities are quoted here.

a) Road Transport:

The road transport is one of the important infrastructures available in India. The India's road transport is largest in world. The total length of roads was 42, 36,400 kms during 2007-08. The government of India is spending huge money for the development of roads and making positive policies for the same. The 10th plan outlay for the development of roads was Rs. 59,480 Crore and 11th plan envisaged total investment of Rs. 3, 14,152 Crore. Golden Quadrilateral (4 to 6 laning) of 14330 km of national highways at the estimated cost of Rs.65, 000 Crore has been entrusted to the National Highways Development Project (NHDP). About 11,037 km of NHDPhas been completed by 31st March, 2009.

To encourage the private sector participation Build Operate Transfer (BOT) scheme has been implemented. The National Highways Authority of India (NHAI) (1995) has implemented National Highways Development Project (NHDP), Pradhan Mantri Gram Sadak Yojana (PMGSY) in December 2000, The Central Road Fund Ordinance, 2000 and a cess of Rs.2 per litre on petrol, high speed diesel and oil is levied to mobilize funds for CRF. It is proposed to take up rehabilitation and up gradation of about 12, 109 kms of existing national highways under BOT and public private partnership (PPP) mode, under NHDP Phase III to phase IV. In north-eastern region special accelerated road development programme has been implemented. For the inter-state transport of goods and passengers the national permit plan has been implemented. In various states some segments of road transport have been nationalized. At present Indian road transport covers 87 percent of passenger transport and 65 percent of goods transport. The following table No. 1, gives the information about the Indian road network of the performance of road transport in India since 1950-51.

Table No. 1 INDIAN ROAD NETWORK

Category	Length of Roads (in kms)
National Highways	66800
State Highways	1,54,500
Major District Roads	4,70,000
Rural Roads	26,50,000
Total	42,36,400 kms (approx)

Source: Economic Survey, 2010-11

The following table No. 2, gives the information about the performance of road transport in India since 1950-51.

Table No. 2. OPERATION OF ROAD TRANSPORT

	Unit		**1950-51**	**1960-61**	**1970-71**	**1980-81**	**1990-91**	**2000-01**	**204-05**	**2005-06**	**2006-07**	**2007-08**
Length of Roads	Thousand Kms		399.9	524.5	914.9	1485.4	2327.4	3373.5	3929.4	4003.9	4140.5	4236.4
Length of National Highways	Thousand Kms		19.8	23.8	23.8	31.7	33.7	57.7	65.6	66.6	66.6	66.8
Length of State Highways	Thousand Kms		NA	NA	56.8	94.4	127.3	132.1	144.4	148.1	152.2	154.5
Number of Registered Vehicles	Thousand		306.0	665.0	1865.0	5391.0	21374.0	54991.0	81501.0	89618.0		
Revenue from road Transport	Rs. Crore	Central	34.8	111.7	451.8	930.9	4596.0	23861.0	39626.0	49991.0	54580.0	NA
		State	12.6	55.2	231.4	750.4	3259.6	12901.7	22674.0	21365.0	32430.0	NA

Source: Economic Survey, 2010-11

The length of roads was 399.9 thousand kms in 1950-51 increased to 4236.4 thousand kms in 2007-08, the length of national highways was 19.8 thousand kms increase to 66.8 thousand kms in 1950-51 and 2007-08 respectively. The length of state highways increased from 56.8 thousand kms in1970-71 to 66.8 thousand kms in 2007-08. 306 thousand and 89618.0 thousand vehicles were registered in 1950-51 and 2005-06 respectively. The total revenue from road transport (central) increased from Rs.34.8 Crore to

Rs. 233861.0 Crore and to 5458.0 Crore in 1950-51, 2000-01 and 2006-07 respectively whereas, the revenue (state) increased from Rs. 12.6 Crore in 1950-51 increased to Rs. 12901.7 Crore in 2000-01 and to Rs. 32430.0 in 2006-07.

Problems of Road Transport:

Though the government of India is putting efforts for the development, road transport is facing following problems.

1. Extent of road transport is insufficient compared with population and geographical area.
2. The development is hampered due to permit system, motor vehicles Act. Existence of check posts, etc.
3. Burden of tax.
4. Increase in the prices of fuel and spare parts of vehicle, inflation, etc.
5. Bad conditions of village roads.
6. All the villages have not been connected with cities.
7. Unsatisfactory administration of roads.
8. Financial problems.
9. Wide spread corruption.

b) RAILWAY TRANSPORT

In India railways is a biggest public sector undertaking and has given employment to 15.50 lakh people. Today the Indian railway is the biggest in Asia and it ranks 4th largest network under single management. The history of Indian railways dates back to 1844. The Indian government has been spending huge amount for the development of railways through five year plans. Rs. 45,725 Crore, in Ninth plan, Rs. 37,917 Crore in Tenth plan and Rs. 1,94,263 Crore in Eleventh plan for the development of railway. Gauge conversion Programme was being stared in VIII plan. To supplement investment, partnerships with private sector and

state governments for specific projects have been implemented they are, Build Own Lease transfer (BOLT) and Own Your Wagon Scheme (OYWS), etc. In Indian railways the reform measures include steps like- privatization, gauge conversion computerization of passenger and freight services, upgradation of passenger amenities, technology upgradation, rail safety measures, etc. The table No. 3 gives information about the gauge-wise route and track lengths.

Table No. 3 GAUGE-WISE ROUTE AND TRACK LENGTH (31-03-2007)

Gauge	Route kms	Running Track kms	Total Track kms
Broad Gauge (1.676 mm)	49,820	71,015	93.386
Metre Gauge (1.000 mm)	10.621	11,487	13.412
Narrow Gauge (0.762 & 0.610 mm)	2.886	2.888	3.198
Total	63.327	85.390	1,09,996

Source: India 2009, Ministry of Information.

Table No. 4: OPERATION OF INDIANS RAILWAYS

	1950-51	1960-61	1970-71	1980-81	1990-91	2000-01	2005-06	2006-07	2007-08	2008-09	2009-10
Route Kms (000's)	53.6	56.2	59.8	61.2	62.4	63.0	63.3	63.3	63.3	64.0	64.0
Total Taffic (M T)	93.0	156.2	196.5	220.0	341.4	504.2	682.29a	744.56a	804.11a	836.61a	892.22a
Total Revenue Earning Freight Traffic (BT)	37.57	72.33	110.7	147.65	235.79	312.37	439.60	480.99	521.37	551.45	600.55

Source: Economic Survey 2011

Problems of Rail Transport:

Rail transport is facing following problems-

1. Problem of technological upgrading.
2. Increase of railway net work.
3. Problem of Finance.
4. Providing better facilities and services to passengers.
5. Difficulty of fixation of freight or fare.

6. Problem of efficiency.
7. Problems of administration.
8. Problem of gauge conversion.
9. Problem of modernization and competition.

c) Inland Water transport:

India, having 7517 kms of coastal lines, perennial rivers and 14,500 navigable waterways, has ample opportunity for water transport. In 1970 Inland Transport Corporation was established. The Indian Waterways Authorities of India (IWAI) was established in 1986. National Inland Water Navigation Institute has been established in February 2004. The annual average cargo handling capacity of major ports increased from 505 million tonnes per annum in 2006-07 to 575 million tonnes per annum during 2008-09. As on 01-06-2008 India's coastal shipping tonnage was 590 vessels with 9, 47,734 GRT. Jawaharlal Nehru Port Trust, Navi Mumbai signed an agreement with P & O Australia, for the development of two berth container terminal of 600 meter quay length on 'BOT' basis for 30 years in July 1997 and completed in April, 1999. A terminal at Vallarpadam, Cochin is given to Dubai Ports International, Dubai, UAE, on 'BOT' basis. Till now 17 projects in private sector have been operationalized with an investment of Rs. 4,927 crore and there are 8 other projects with an investment of Rs. 5,181 under various stages of appraisal.

d) Air Transport:

Apart from international airports India has more than 90 aerodromes. Airport Authority of India (AAI) has decided to provide world class infrastructure facilities and modernize and develop 35 non-metro airports. The new air port at Devanahalli near Banglore is proposed to be implemented on a Build Own Operate and Transfer (BOOT) basis. On March 1, 2007 the government of India has decided to merge Indian Air Lines Limited and Air India Limited into new hundred percent government of India owned company. Accordingly on 30th March, 2007, National Aviation Company of India Limited (NACIL) was created and it is largest airline the country with 150 aircraft. NACIL in November, 2010 is renamed as Air India Limited. Indian air transport with public sector companies has12 private scheduled passenger operators. With 103 countries India has bilateral agreements. With a fleet of 36 helicopters Pawan Hans Helicopter Ltd. an ISO 9001:2000 certified company provides

helicopter operations. Airports Authority of India handled 13.08 lakh aircraft movements, 509 lakh passengers and 593 thousand tonnes of air cargo during 2009-10.

Liberalization of air services, development of international airports, development of non-metro airports, encouragement to joint ventures for repairs and maintenance, cargo and ground management initiatives, in April 2009, for fixing, reviewing and approving tariff structure, Airport Economic Regulatory Authority (AEREA) has been established, at Gondia (Maharashtra) Rajiv Gandhi National Flying Institute for pilot training under joint venture is established, etc. are the reform measures for the development of air transport.

Table No. 5: GROWTH OF CIVIL AVIATION

		1960-61	1970-71	1980-81	199091	1999-2000	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11a
Total Fleet Strength 1.Air India		13	Ling initiatives, 10	17	24	26	36	34	36				
2. Indian Airlines		88	73	49	56	53	61	64	70				
3. National Aviation Company of India										122	108	113	100
Revenue Tonne-Kms	Rs. Crore	17.56	47.52	138.04	208.02	219.68	323.53	350.49	245.59	372.90	328.40	353.3	392.8

Source: Economic Survey, 2011

e) Communications:

The communication system has become an essential part of the development of industries, commerce and trade. In terms of area covered and population served, the present postal network is one of the largest networks of the world. There were 1, 39,182 rural and 15,797 in urban and total 1, 54,979 post offices in India on 31-03-2010. There is one post office for 7,176 people and 21.21 Square km. In terms of network, accounts and annual deposits the post office savings bank is the largest bank in India with 24.10 crore live accounts and Rs. 5, 83, 789crore deposits in March 2010.

Postal Index Number (PIN), Quick Mail Services (QMS) (1975), Speed Post Service (1986), Very Small Aperture Terminals (VSAT) network stations, Extended Satellite Money Order (ESMO) station, Automatic Mail Processing Centers (AMPC) (at Mumbai & Chennai for fast processing of business mail have been set up) are the some of the postal reforms. Postal department has introduced two internet based 'e-Post' 'e-Bill Post' facilities.

Telephone Services:

India is third largest in telephone network with 765 million connections as on November, 2010. Tele density rose from 2.32 in 1999 to 64.34 in November 2010.The government has announced the Broad Band Policy on 14th October, 2004, National Telecom Policy (NTO) in May 1994, Telecom Regulatory Authority of India (TRAI) on 25th March, 1997, the New Telecom Policy (NTP) in 1999, etc. Since 1991 the government of India has been implementing many reforms in telecom sector. Government of India announced the National Telecom Policy (NTP) in May 1994. With a view of protecting the interest of consumers, regulate telecom tariff and ensure fair competition the Telecom Regulatory Authority of India (TRAI) was set up on 25th March, 1997. Government of India announced the New Telecom Policy (NTP, 1999) in 1999. Government has allowed 100 percent FDI in telecom sector and between 2000 and 2008 FDI of Rs. 27,483 crore were approved. Privatization and corporatization of telecom services, mobile and internet service through private providers, higher competition and efficiency, providing telecom service at minimum cost, allowing foreign direct investment up to hundred percent, etc. are important reforms made in the telecom sector by the government of India.

f) Banking Sector:

Banking services are quite essential for the development of all the sectors of the economy. Before and after 1991 the government of India has taken variety of steps for development of banks. The government has reduced the Statutory Liquidity Ratio (SLR) from 38.5 percent to 25 percent, Cash Reserve Ratio (CRR) from 15 percent to 5 percent in October 27, 2009 and rose to 6 percent in April 20, 2010. Deregulations of interest rates, Board for Financial Supervision (BFS), are the reforms in the banking sector.

At present 28 nationalized and 32 private sector banks are functioning in India. All the public sector banks together (including RRBs) had 74,806 branches and private sector banks had 8295 branches on 30th June 2010. In India at present more than 40 banks have opened their branches and there were 310 branches on 30th June 2010. The following table gives the information about the branch expansion of all commercial banks.

Table No. 6: BRANCH EXPANSION OF ALL COMMERCIAL BANKS

As on June 30	Total Number of Branches	Rural Branches	Rural Branches as Percentage of the Total
1969	8,262	1,860	22
1991	60,650	32,750	54
2000	65,450	32,709	50
2010	85636	32,627	38.1

Source: Economic Survey, 2003-04, 2004-05, 2006-07, 2007-08, 2008-09, 2009-10, 2010-11

g) SAFIR:

South Asia Forum for Infrastructure Regulation (SAFIR) was established in May 1999 with support from the World Bank. It is designed to assist in the building of regulatory capacity in the electricity, natural gas, telecommunications, water, transport and other sectors as decided by the Steering Committee in the South Asian region. During October 21-29, 2005, SAFIR organized its 'Seventh Core Training Programme on Infrastructure and Reforms' at Jaypee Palace Hotel, Agra with the intention to provide a platform for sharing experience amongst the regulators, officials from private and public agencies and other organizations dealing with infrastructure sectors in the region.

CONCLUSION:

For enhancing growth rate of Indian economy, the government has made considerable efforts. By changing policies, according to changing time and requirements government is

trying to improve the quality of infrastructure and competitiveness. Still it is essential to find the solutions for solving the problems faced by road transport, rail transport, water transport, etc. the government has to frame such policies conducive for overcoming problems faced by different infrastructure services.

REFERENCES:

1. 1. Agrawal A N, “Indian Economy Problems of Development and Planning”.
2. Dhingra, Ishwarchand, “The Indian Economy”.
3. Economic Survey, 2003-04, 2004-05, 2006-07, 2007-08, 2008-09, 2009-10, 2010-11 website: htt:/indiabudget.nic.in.
4. H R Krishnamurthy, (2011-12) Economic Development of India, Sapna Book House, Bangalore.
5. Ruddar Dutt & K P M Sundaram: Indian Economy, S. Chand & Company, Ram Nagar, New Delhi.
6. Web pages