

## **A Study of Development Projects in Indian Economy**

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### **Abstract**

*India is a young country. It has emerged as one of the fastest growing economy in the world. It has undergone through major transformation recently. All sectors of the economy have contributed a lot in achieving this growth. The main contributors include agriculture, industries, power, railways, road transport, telecommunications, atomic energy, civil aviation, coal, petroleum and urban development. In our country plans are made for development. The five year plans have boosted our economy. These ensured growth and development of the nation. The government's execution mechanism includes preparation and implementation of projects. But it is seen that exists a time lag and delay in project completion. The analysis showed existence of time overrun in projects. It denotes that projects are running behind their original schedule. This causes extra cost burden on government. A study has showed that these projects hamper the growth prospects of the economy and thus put extra financial burden on the government. The present paper explores the cost and time overrun in various projects and further analyses the reasons for these delays. Remedial measures are offered for ensuring timely completion of these projects. The analysis of projects has been highlighted on financial parameters.*

**Keywords-** Overrun, cost burden, time lag, PPP, business environment and financing pattern

### **Introduction & Literature review**

Major sectors of economy have shown growth potential in terms of rise in GDP and per capita income. These have contributed in strengthening and transforming the economy. In recent years, the service sector has grown enormously being a vibrant and dynamic sector. This has also contributed in growth of other sectors. The sectors having mega project implementation are power, railways, road transport, atomic energy, civil aviation, coal, fertilizers, petroleum, shipping, steel, telecommunications and urban development etc. In present scenario besides project implementation and appraisal, the government is highly concerned with issues of delays and cost over burdens of these projects. In the present paper a study of project implementation is done to highlight the issues of time and cost overruns. Secondary data has been used in this paper to study the project implementation and appraisal in India and for comparative analysis of delayed projects in financial terms. Data of various years is compiled from reports of Planning Commission, Asian Development Bank and Ministry of Statistics & Program Implementation, Govt. of India. A report of India Brand Equity Foundation and Price water house coopers has been analysed. Further annual performance reports and e-books published have been considered. The Economic Times and Financial Express were also referred.

### Development Projects in India

India's infrastructure sector is one main segment where development projects are being executed and the overall progress is assessed. This is because infrastructure sector acts as the backbone of the economy. Also it determines the level of human and economic development in the nation. Many studies have showed a positive relation between the level of economic development and quality of housing & access to basic amenities such as electric power, portable drinking water, clean toilets etc. However India's infrastructure is lagging far behind than other countries in terms of access to electricity, IT, per capita income, air and water transport. This has adversely affected the growth prospect of economy. Poor infrastructure impedes nation's economic growth and international competitiveness. Further, insufficient infrastructure represents a major cause of loss of quality of life, illness and death. Thus for maintaining growth momentum strengthening of physical infrastructure mainly transportation, energy, communication is very much crucial. The key infrastructure sectors in the country include roads and highways, railways, power, telecommunications, ports, civil aviation, water, coal, steel, cement, fertilizers & petroleum. The overall infrastructure performance has shown a positive trend of growth in recent years.

Comparative progress in the corresponding period of April to September (2014-2016) for three years in different sectors namely power, roads and highways, railways, telecommunications, ports, civil aviation is shown to highlight the growth prospects.

#### Comparative Statement

S. N.	Sector	April-Sep 2014	April-Sep 2015	April-Sep 2016
1	Power (BU)	567.098	593.677	632.121
2	Railway Revenue Earning	532.44	540.99	532.32
3	Road Transport			
	NHAI (KM)	595.00	899.00	985.00
	State PWD & BRO(KM)	549.39	545.52	1012.79
4	Shipping & Ports			
	Cargo handled at major Ports(MT)	287.735	299.954	315.428
	Coal handled at major Ports(MT)	56.475	75.920	73.660
5	Telecommunication ('000 Lines)			
	New Fixed/Wired Telephone connect.	-1095.353	-640.498	-701.304
	New net cell (WLL=GSM connection.	26026.856	27560.257	129.591
6	Civil Aviation			
	Export Cargo handled(Tonnes)	478513	493220	541936
	Import Cargo handled(Tonnes)	306468	338887	358180
	Passengers handled at International Terminals(Lakh)	293.970	262.492	287.365
	Passengers handled at Domestic Terminals(Lakh)	668.410	797.001	981.117

Source : NSSO & MOS/ Compiled as per requirement

BU- Billion units      MT- Millions Tonnes      MCM -Million Cubic Meter      KM-kilo meter

The Government of India is taking wide initiatives to boost the economy. Various projects in different sectors have been initiated. These projects have been placed in two categories- Mega Projects (Rupees 1000 crore and above) and Major projects (Rupees 150 crore to less than 1000 crore). During the 12<sup>th</sup> plan (April 2012 to March 2017) 342 projects were completed. It includes project implementation in sectors in atomic energy, civil aviation, coal, fertilizers, petroleum, power, railways, road transport & highways, shipping, steel, telecommunications and urban development. Of these, 73 projects were completed in 2012-13, 69 projects completed in 2013-14, 72 projects completed in 2014-15, 61 projects completed in 2015- 16 and 67 projects completed during April to October 2016.

### Delay in projects

It has been analysed that there exists a delay (time overrun) in projects under implementation. Projects are running behind their original schedule. This has caused extra cost burden on government. The reasons need to be searched out and remedial measures need to be taken well in time to avoid losses in future.

An analysis of the 1174 projects at the end of September 2016 showed that 333 projects were running behind their original schedule. The time overrun in these projects ranged from 1-261 months. The cost overrun in the delayed projects had resulted 20.95% increase in original cost. The anticipated cost for all delayed projects together calculated is 647487.80 Crore.

### Sector-wise analysis of the time overrun of projects under implementation

(Excluding completed projects)

Extent of time overrun in projects with respect to original schedule (Expenditure in Crore)									
SI. No	Sector	No. of Projects	Original Cost	Anticipated Cost	Cost Overrun (%)	Projects with Time Overrun (\$)			
						No. of Projects	Original Cost	Anticipated Cost	Range of
									T.O.R (in month)
1	ATOMIC ENERGY	4	40,442.00	51,918.00	28.38	3	27,271.00	29,456.00	35- 85
2	CIVIL AVIATION	4	1,177.28	1,157.07	-1.72	1	309.46	309.46	80-80
3	COAL	87	68,388.18	70,065.13	2.45	38	19,812.36	20,473.26	6-132
4	FERTILISERS	2	680.64	692.29	1.71	1	197.79	209.44	10- 10
5	MINES	3	2,555.63	1,875.63	-26.61	2	2,211.13	1,531.13	1-31
6	STEEL	34	57,600.51	57,771.82	0.30	13	38,092.78	38,295.61	6-45
7	PETROCHEMICALS	1	5,460.61	9,965.00	82.49	0	0.00	0.00	-
8	PETROLEUM	77	1,34,945.71	1,36,519.48	1.17	38	41,660.16	43,170.08	1-71
9	POWER	125	3,39,160.85	3,88,956.82	14.68	61	1,95,247.64	2,25,353.47	1-134
10	HEAVY INDUSTRY	1	1,718.00	3,827.30	122.78	1	1,718.00	3,827.30	75-75
11	HEALTH	9	2,563.15	2,563.15	0.00	4	826.49	826.49	1-35
12	RAILWAYS	355	3,56,856.42	4,43,751.74	24.35	41	44,583.08	1,10,049.11	11-261
13	ROAD TRANSPORT	431	2,80,828.14	2,83,511.83	0.96	111	86,173.40	88,555.66	1-114
14	SHIPPING AND PORTS	8	4,117.75	5,085.02	23.49	1	366.39	669.46	96-96
15	TELECOMMUNICATION	4	15,773.68	15,673.68	-0.63	2	2,285.56	2,185.56	18-30
16	URBAN DEVELOPMENT	29	1,33,984.49	1,43,123.47	6.82	16	74,578.79	82,575.77	4-65
<b>Total</b>		<b>1174</b>	<b>14,46,253.04</b>	<b>16,16,457.43</b>	<b>11.77</b>	<b>333</b>	<b>5,35,334.03</b>	<b>6,47,487.80</b>	

Source - MOSPI/ Compiled as per requirement/ As per availability of data

**Analysis of overrun in main infrastructure projects in India**

Year/Period	Overall Percentage (%) of Time overrun	Overall Percentage (%) of Cost overrun
March 2001	37.66	36.00
March 2002	31.72	26.00
March 2003	39.44	22.3
March 2004	37.15	22.4
March 2005	39.02	17.7
March 2006	38.80	17.4
March 2007	34.13	14.51
March 2008	41.91	12.06
March 2009	48.11	13.45
March 2010	48.21	14.72
March 2011	47.33	18.69
March 2012	47.65	18.08
March 2013	51.08	17.07
March 2014	29.44	19.40
March 2015	43.68	20.03
March 2016	31.88	12.52

Source : MOSPI/Annual reports/ Compiled as per requirement

**Reasons for Time Overrun**

- Delay in land acquisition & obtaining clearances
- Delay in tendering, ordering & equipment supply
- Delay in project-financing
- Lack of infrastructure facilities
- Lack of technical expertise

**Causes of Cost Overrun**

- Revision in foreign exchange rates and statutory duties
- Under estimation of original cost
- Time Overrun
- High cost of land acquisition & environmental safeguards
- General price rise

**Remedial Measures**

The government brought systemic improvements and remedial measures to reduce delays in project implementation. It includes-

- review of projects on quarterly basis
- Regular monitoring of time & cost overruns of projects costing 150 Crore and above
- Setting up of Standing Committees
- Adoption of computer based monitoring & training
- Setting up of CSPCCs to remove bottlenecks

### Recent Initiatives

- Constitution of Central Sector Projects Coordination Committees for resolving issues related to land acquisition, shifting of utilities, resettlement and law & order problems.
- Redesigning and redevelopment of OCMS
- Provision of efficient support system
- PPP initiatives in power, transport, telecom and urban infrastructure sectors

### Conclusion and Suggestions

To sum up, delay in development project's implementation is a serious concern. It hampers the growth prospects of the country and impart extra financial burden on the government. In the present paper a review is presented for the delayed projects in India. Project implementation and execution is a fundamental step for socio-economic development of the nation. In recent past, different sectors have registered significant progress including power, transport, telecom, IT etc. and these have much more potential to rise in future with growing opportunities of Public private partnerships. New avenues need to be addressed and identified. To sum up, improper project appraisal need to be addressed on priority basis through good governance and effective mechanism. The solution also lies in proper monitoring and fixing of responsibilities at appropriate levels.

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