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INDIAN CONSTRUCTION INDUSTRY

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Indian Construction Industry – An Overview of Practices

Introduction

The paper discusses the overview of practices being used in Indian Construction Industry, one of the fastest growing Construction Industry Internationally and the second largest employer in India. The paper deals with the key areas of construction opportunity and & activity, the use of PPP models, type and extent of use of International Standard Form of Contracts and Contract administration and certification processes.

Construction Industry Development Council

Construction industry Development Council (CIDC) is the apex body of Construction Industry of India and is promoted jointly by the Planning Commission, Govt. of India and the Construction Industry of India. The paper describes, in brief, the political, social and legal framework. The paper details the economic overview, administrative and regulatory features, enhancement and development of Indian Construction Industry and the globalization of construction services with a perspective of WTO and GATS.

Political, Social & Legal framework:

- Secular Constitution.
- Stable Democratic environment since 1947.
- Broad consensus on Economic policy across party lines.
- Independent multi-tier judicial system.
- Judicial systems in sync with international practices.
- Preferred language of domestic business & international interactions is English.

Economic Overview

India's economy encompasses traditional village farming, modern agriculture, handicrafts, a wide range of modern industries and a multitude of support services & industries. Production, trade, and investment reforms have provided new opportunities for Indian businesspersons. India has an estimated 350 million middle class consumers. :

- India is the second fastest growing economy of the world at present. India has recorded one of the highest growth rates in the 1990s. The target of the 10th Five Year Plan (2002-07) is 8%. India's services sector growth of 7.9% over the period 1990-2001 is the second highest in the world.
- India is a young country with median age of population being 24.6 years & one-third of the population is below 14 years of age.
- Long run GDP growth from mid 1990s has now stepped up to 6.5% from an average of 5% a decade & half ago and less than 3% two decades ago.
- The average annual growth rate for the next few years is expected to be 7% to 7.5%
- The opportunities unfolding in India is as a result of reforms enacted from early 1990s as well as a result of India's increasing competitiveness & confidence
- A unique feature of the transition of the Indian economy has been high growth with stability.
- 4th largest economy in terms of purchasing power parity.
- 350 million middle-class consumer market.
- Steady economic growth over 50 years.
- Increasingly transparent & open policies to access, investment, location, choice of technology, import and export.
- Government rapidly moving out of ownership / Management of commercial enterprises by a process of disinvestment of existing Government-owned businesses.
- Positive outlook to international investments & trade policies.
- Fiscal incentives & Central Government & States support in physical & social infrastructure development.
- Very large pool of educated and trained & skilled manpower
- Rapidly developing R&D, infrastructure, technical and marketing services.
- Agricultural self-sufficiency, rich mineral base and abundance of other natural resources.
- Large, diversified and geographically well distributed manufacturing capability.
- Diversified infrastructure facilities available and under development.

- Sound banking system with a network of 70,000 branches, among the largest in the world supported by national and state level financial institutions.
- Leading International Banks entrenched and expanding.
- Vibrant capital market comprising 23 stock exchanges with over 9000 listed companies.
- Large Coastline with easy access to South Asian markets.
- India has the third largest investor base in the world.

Size of Indian Household by Profile (Millions)

Class	**2006-07**	**2001-02**	**1995-96**
Rich	5.2	2.6	1.2
Middle Class	75.5	46.4	32.5
Aspiring	81.7	74.4	54.1

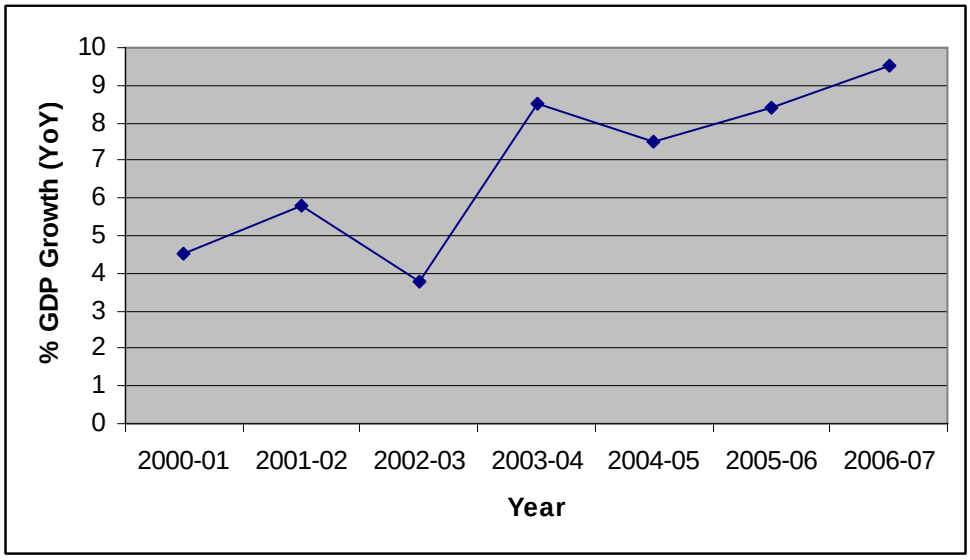
Source: NCAER

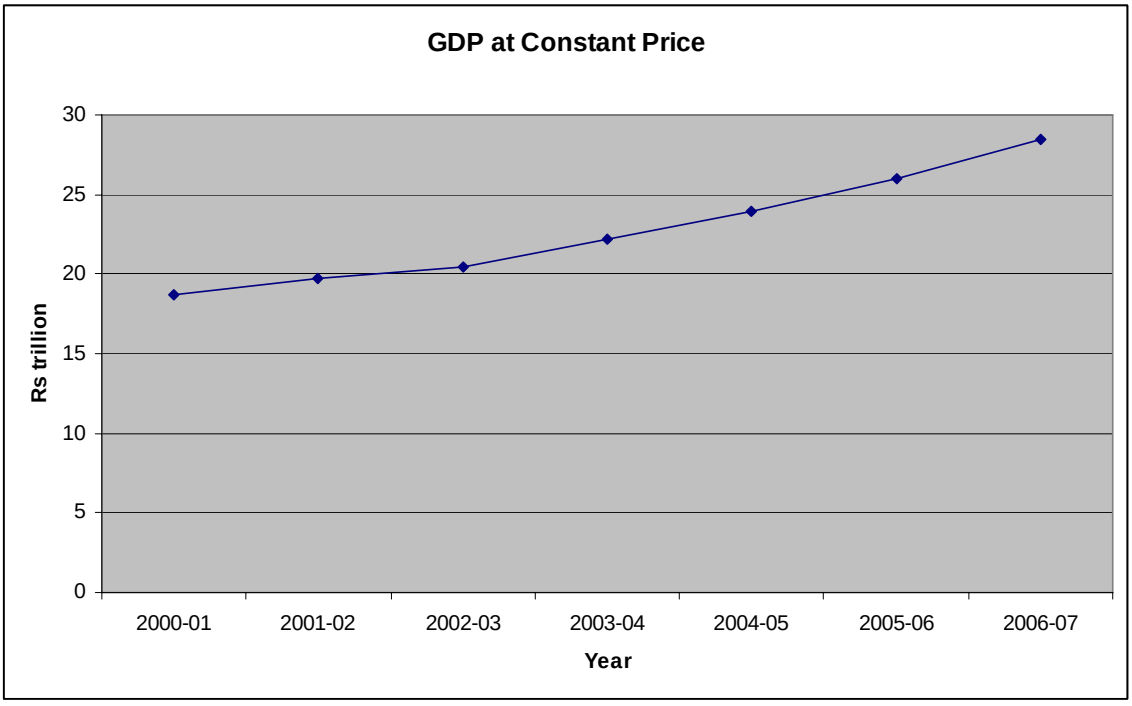
Main Macroeconomic Indicators - Overview of national economy

	Unit	**2000-01**	**2001-02**	**2002-04**	**2003-04**	**2004-05**	**2005-06**	**2006-07****
GDP at factor cost (at 1999-00 price)	Rs trillion	18.7	19.7	20.47	22.22	23.89	26*	28.48
GDP at current market prices	Rs trillion	19.3	20.80	22.65	25.49	28.55	32.5*	-
% GDP growth (constant price)	**%**	**4.5**	**5.8**	**3.8**	**8.5**	**7.5**	**8.4***	**9.5***
Sub-Sectors of GDP								
Agriculture & Allied	Rs trillion	4.5	4.8	4.4	4.9	4.9	5.1*	-
(%) Growth	%	-	6.6	(-) 8.3	11.3	0	4*	
Manufacturing Sector	Rs trillion	2.8	2.9	3.1	3.3	3.6	3.9*	-
(%) Growth	%	-	3.5	6.8	6.4	9	8.3*	
Service Sector	Rs trillion	10.4	11.1	11.9	12.9	14.2	15.7*	-
(%) Growth	%	-	6.7	7.2	8.4	10	10.5*	-
Construction Sector	Rs trillion	1.8	2	2.2	2.55	3	3.4*	3.8*
(%) Growth	%		12	12	14	14	14*	15*

Project Exports (Overseas construction engineering and/consultancy projects secured during the year)@	Rs billion	12.2	14.3	25.2	33.47	440	-	-
Plan-outlay	Rs trillion	1.8	-	2.1	2.2	2.6	3.5	-
Population* (Millions)	Millions	1019	1037	1055	1073	1088	1103	1123
Population growth rate (%)	%	1.80	1.77	1.76	1.73	1.41	1.4	1.4
Total labour force in Construction	Million	31.5	31.5	31.5	32	32.5	32.85	32.9*
Construction labour force growth rate (%)	Million	1.61	0.00	0.00	1.2	1	1.1	1.1*
Unemployment Rate #		#	#	#	#	#	#	#
Short term interest rate (%)	%	17-18.5	14-16	11-14	11-12	11	11	11
Long term interest rate (%)	%	10-12.5	9-11.5	9-11.5	6-11	6-11	6-11	6-11
Wholesale Price Index		-	-	-	-	187.3	195.6*	206.1
Average Consumer price index @		444	468	482	500	520	542*	-
% change in CPI	%				3.7	4	4.2*	-
Base lending rate (Commercial Banks)	%	12.5	10	10	11	10.25	10.25	10.25
Base lending rate (Finance Companies)	%	14.5	12.5	12.5	9	9	9	9

Source : Central Statistical Organisation & Union Budget – 2003-04
Base Year - 1993-94 for all except CPI @ Base Year 1982 = 100 (Source – Labour Bureau, GOI)
* Subject to revision
** Indian Financial Year form 1st April 2006 to 31st March 2007
Major employment is in unorganised sectors. No verifiable data available.
@ Source: Project Export Council of India





10th Five Year Plan and Construction (2002 –2007):

The 10th Five year plan brought by the Planning Commission, Government of India, which is a policy paper for the economy for the next five years (2002 – 2007) has for the first time incorporated a chapter on Construction. This shows the importance given by the Government of

India to the Construction Industry. The plan encourages 8% growth in GDP for which total investment is Rs. 4,081,700 Cr. The public sector investment is 1, 1212,802 Crore and private sector investment is 2,476,100 Cr. Based on past experience construction account for 40-50% of the investment which means a figure of 2,000,000 Cr in the next five years or about 4,00,000 Cr. every year.

For the 11th five year plan (for the period 2007-2012) it is proposed to enhance the investment in infrastructure two folds.

Administration and Regulations of Construction Industry

Construction Projects are subject to a host of Central and State laws simultaneously. Administratively and in terms of regulation, Central & State Governments have their own roles to play in Construction.

Structure and Role of Construction Administration

- Structure and Role of Construction Administration of Central Government &
- Structure and Role of Construction Administration of Local Government

There is focussed central machinery or structure of administration for the Construction Industry. As this sector's activities are involved with every sector of the economy, at the Central Government level, the issues related to Construction are taken up by the Planning Commission. In fact Construction was given the Identity of an Industry only two years ago.

Housing & Real Estate, constituting around 10.3% of total Construction, is the only one segment of the Construction Industry which has a Ministry called the "Ministry of Urban Affairs". Equivalent Ministries exist at State level and at Municipal/local levels. Activity at any site is governed by the State or a combination of State and Central administration, depending on the location.

Administratively the following Ministries/Departments/Organisations have operating influence over Construction Industry:

Central Government Ministries

- ✓ Ministry of Commerce
- ✓ Ministry of Finance
- ✓ Ministry of Urban Affairs and Employment
- ✓ Ministry of Industries
- ✓ Ministry of Home Affairs

Central Government Departments

- ✓ Cabinet Committee on Foreign Investment
- ✓ Secretariat of Industrial Assistance
- ✓ Foreign Investment Promotion Board
- ✓ MRTP Commission
- ✓ Registrar of Companies
- ✓ Central Excise and Customs Department

State Government

- ✓ Revenue Department
- ✓ Urban Development Authorities
- ✓ Sales Tax
- ✓ Town and Country Planning

Autonomous Statutory Bodies

- ✓ Reserve Bank of India
- ✓ Security and Exchange Board of India
- ✓ Municipal Committee

CONSTRUCTION OPPORTUNITY & ACTIVITY

Civil Aviation

The Opportunities

Domestic and international passenger traffic in India is projected to grow annually at 12.5 per cent and 7 per cent respectively over the next decade, and domestic and International cargo

traffic at 4.5 per cent and 12 per cent. By the year 2005, Indian airports are likely to be handling 60 million International passengers, and 300,000 tonnes of domestic and 1.2 million tonnes of International cargo.

The Airport Authority of India (Amendment) Bill, 2003 has been passed by parliament. The Bill provides a legal framework for operational and managerial independence to private operators. It also seeks to ensure a level playing field to private sector greenfield airports by lifting control of AAI except in certain respects. The Amendment Bill defines a private airport-one that is 'owned, developed or managed' by any agency or person other than AAI or a state government, or managed jointly by AAI, a state government, and a private player, where the latter's share is more than 50 percent – and allows leasing of existing airports to private operators.

The AAI has also drawn up an Rs 40 billion (US$ 1.1 billion) plan to modernise and expand its airspace management and infrastructure to meet the demand growth projected for the coming five years. The growth strategy envisages not only better passenger facilities but also improved navigational and communications systems. The first phase will involve upgradation of conventional communication and navigational and surveillance systems as an immediate measure. The internal resources generated at present being inadequate, the AAI plans to enhance revenues through rationalisation of the tariff structure, as well as from commercial, cargo and duty-free shops.

The two majors airports of the country at Mumbai and Delhi have been handed over to private parties for extensive development and operation. Further concrete plans have been put in place to develop Airports of other town and cities.

India could step closer to wide-ranging reform of its aviation sector after public consultation closes today for a committee drafting the country's new civil aviation policy.

CEMENT

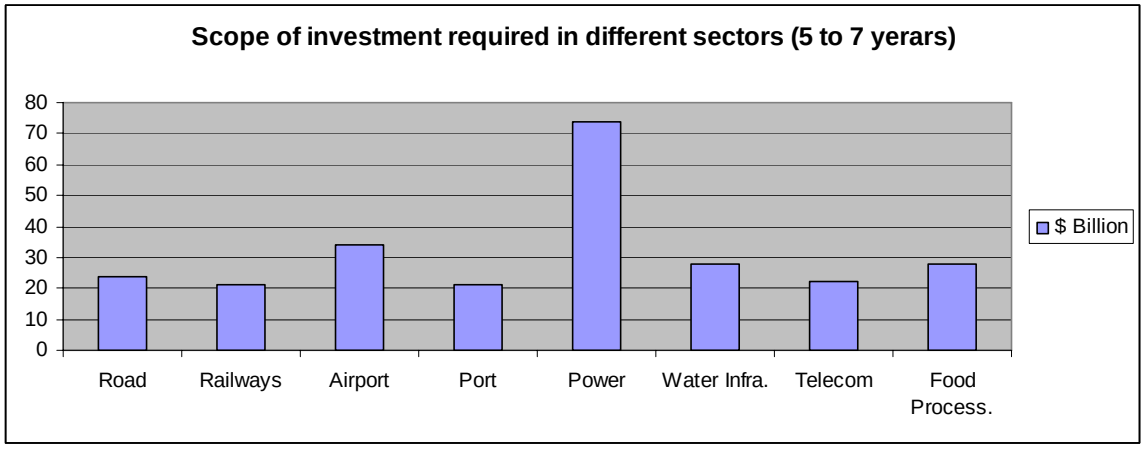
CMA is the apex representative body of large cement manufacturers in India. It is a unique body with the private as well as the public sector cement units as it s members.

Opportunities

- To promote Indian cement industry's growth
- To protect consumer interests
- To identify newer usages of cement

- To establish contacts with similar bodies abroad for exchange of information data, publications, etc.

India has excellent deposit of lime stone which can be used for cement production. As the construction industry has been growing the cement industry has been enhancing its capacity to meet the demand.



FDI Infrastructure Equity Ceiling

Real Estate(townships)	**100%**
Roads	**100%**
Power	**100%**
Airlines	**74%**
Airports	**74%**
Banks(Private)	**74%**
Mining	**74%**
Telecom	**74%**
Defence	**26%**
Insurance	**26%**

PORTS

India enjoys a strategic location in the Indian Ocean and has a vast coastline of around 6,000 km. However, due to the conscious policy the country followed for over four decades self-reliance through import substitution rather than export-led growth-its share in international trade was not significant. India's economic strategy has, however, been changed radically in the last few years. As India globalises its economy fast, it will need to handle a growing volume of international trade. Thus, the up gradation and expansion of its ports will be a key success factor for India's economic development programme

The Opportunities

Under the Government of India's Eighth Five-year Plan (1992-97), outlay for major ports was Rs 32 billion (US$0.9 billion). But it is estimated that investments worth Rs 254 billion (US$7.3 billion) are necessary to create the 350 million tonnes of additional capacity needed by 2005-06 Of this, the ports' internal resources are likely to yield Rs 135 billion (US$3.9 billion) between 1996 and 2006. The balance of around Rs 119 billion (US$3.4 billion) will need to come from other sources like the domestic capital market or through international capital flows.

The 4 major ports-Jawaharlal Nehru Port Trust(JNPT), Mumbai Port Trust, Cochin Port Trust, and Kandla Port Trust have drawn plans to add a container terminal each. The government is following the ‘landlord port model’ where private parties will operate terminals and other services while the ownership of land, waterfront, and security would remain under government control.

JM Baxi & Company along with the Dubai Ports Authority is setting up the Visakha Container Terminal. P & O Ports, through its Mauritius registered company, took over the Mundra International Container Terminal, earlier known as Aani Container (Mundra) Terminals Ltd and A P Mollier Group (a Danish company which owns Maersk Sealand) is likely to take over the Pipavav Port.

ROADS

Industrialisation in India has brought in its wake considerable demand for more and better roads. A better road network will result in enormous savings, estimated to be between Rs 200 and 300 billion (US$5.7-8.6 billion) per annum. Improvement of the road network will also enable

commercial vehicles to run 500-600 km per day, which is the average distance covered by them in the developed world, as opposed to the 200-300 km per day average in India currently.

The Opportunities:

Roads in India are categorised as Expressways, National Highways, State Highways Major District Roads, Other District Roads and village roads. The investments needed over the next 10 years, till 2005-06, for the development of the National and State Highways are estimated to total Rs 1,180 billion (US$ 33.7 billion). Of this, budgetary resources are expected to provide Rs 465 billion (US$ 13.3 billion), and multilateral and bilateral agencies Rs 220 billion (US$6.3 billion). Private sector investment required is at least Rs 290 billion (US$ 8.3 billion).

National Highways Development Programme: As the two mammoth trunk road projects – the Golden Quadrilateral (GQ) (5846 km) and the North South – East and West corridor (7300 km) – move towards completion, albeit with some delays, private sector interest and participation in the projects has been unprecedented. It has been reported that only 45 percent of the GQ project will be completed by December 2003. By the end of December 2003, four-laning and upgradation in 2630 km is excepted to be completed. While the centre has officially extended the deadline for finishing the project to December 2004, the Ministry of Road Transport and Highways (MoRTH) has informed the Planning Commission that the work will not be completed before mid-2005. it has been reported that the National Highways development programme (NHDP) is one of the 7 schemes that the Prime Minister will direct to ensure the timely completion of the GQ Project and the north-south and east-west road corridors. The Cabinet Committee on economic Reforms(CCER) has approved the list of schemes to be taken up on priority basis in 2003-04.

2003-04 budget announcements, the MoRTH proposes to take up 4-laning of about 10,000 km of national highways through private sector participation on Build, Operate, and Transfer (BOT) basis. MoRTH is proposing 'viability gap funding' which in essence are cash flows to be provided by MoRTH during the concession period to ensure financial viability. MoRTH proposes to take up about 650 km of road stretches in the fiscal year 2003-04. The National Highways Authority of India (NHAI) is also evaluating various options (project recourse debt, NHAI-guaranteed loans/bonds, etc.) for financing the port-connectivity projects.

Multilateral agencies are providing funds to state governments for upgrading the state highways as roads are being considered an important aspect of infrastructure, which helps to ameliorate

poverty. Tamil Nadu and Madhya Pradesh are the two states, which have received commitments from multilateral agencies.

The World Bank has approved a US$ 348 million loan to improve the quality of 750 km of state highways in Tamil Nadu Road sector Project. In addition, 14 bypasses will be upgraded to two lanes with or without paved shoulders and 2000 km of roads will be taken up for major maintenance. International consultants have carried out the road segment designs. The scheme is to be implemented by the state highways department. The government on its part will provide US$ 102 million to the US$450 million project. The World Bank loan is payable in 20 years and has a 5 year grace period.

The government of Madhya Pradesh has taken up upgradation of state highways and major district roads covering a distance of about 1900 kms in two phases. An investment of US$ 341.4 million is being entailed and this will be met by loans from the Asian Development Bank (ADB). (US$ 180 million) and with state government funding. The Phase I scheme involves strengthening and widening of 6 state highways for a total distance of 353 km at a cost of Rs. 2610 million under 4 packages.

A Model Concession Agreement (MCA) has been brought out to facilitate private participation in massive highway building programs.

Railways

Demand for rail services has grown in tandem with economic expansion, quickly outstripping the supply capacity of existing assets (GOI 2002). Pricing anomalies and different priorities assigned to the Indian Railways (IR) stretched the internal resources to the extent that regular maintenance of fixed assets was accorded low priority. As a result, important infrastructure deficits have appeared. These deficits have created serious bottlenecks that hamper further growth on certain sections of IR. The need to increase investment in infrastructure was recognized in the late 1990s.

Government is seriously considering to build dedicated freight corridors with the help of private participations.

Opportunities

National Rail Vikas Yojana: In order to meet competition from other modes of transportation on the most congested routes of IR and to make the transport sector competitive, the Prime

Minister announced the National rail Vikas Yojana (MRVY) in December 2002. Under this scheme, IR envisages to increase capacity of the rail golden quadrilateral, provide better connectivity of the network to major ports, and build a few critical bridges over the rivers Ganga, Brahmaputra, and Kosi. An SPV-Rail Vikas Nigam Limited (RVNL) – has been incorporated to carry out the specific projects under the NRVY. Funds required for the NRVY are Rs. 15,000 crore. Out of this approximately Rs. 4500 crore has been promised by the ADB. The funds are to be disbursed over a 10-year period. It is estimated that Rs 8000 crore would be required to enhance the capacity of the rail golden quadrilateral. IR is working on a proposal to offer projects under the NRVY to private operators on BOT basis using annuity payment scheme on the lines of road projects. These initiatives are undertaken to increase the freight and passenger-carrying capacity of the railways.

Rapid Mass Transport System

Opportunities

Delhi Metro's first section from Shahdara_Tis Hazari was inaugurated on 24 December 2002. PhaseI of the project has three lines: Shahdara-Tri Nagar-Barwala (28 km), Vishwa Vidyalaya-Central Secretariat (11 km), and Barakhamba Road-Connaught Place-Dwarka (23 km). This phase of the project is expected to be completed by Sepetember 2005. Doubts have been raised about the long term viability of the Delhi Metro project, costs for which not discounting for inflation – are 60 percent higher than Kolkata's and 113 percent cost of around Rs 160 crore (expenditure was Rs 10,571 crore for the 66 km first phase, including an 11 km underground stretch) was mucj higher than the per-km cost of around Rs 100 crore for the Kolkata Metro and Rs 75 crore for the Singapore Metro. Delhi Metro Rail Corporation (DMRC) has clarified that the higher project costs were largely due to the use of imported technology, but the matter needs investigation. To reduce overall project cost, the DMRC has projected raising around 6 percent of its total project cost by way of property development and is aiming to generate around Rs 600 crore through real-estate projects by the year 2005.

URBAN INFRASTRUCTURE

India today faces the problems which most economies have faced at some point their evolution: the problems associated with urbanisation. In 1951, 83 per cent of the Indian population lived in rural areas. The figure has since then reduced to 74 per cent of a population which has doubled in the last 46 years.

Much of the investments flowing into India since the economic reforms began in 1991 have been and will continue to be in the urban centres. Naturally, India's cities and their infrastructure services find themselves under tremendous pressure.

The Government of India recognises that a large portion of these investment and service needs must be met by the private sector, and welcomes domestic and international investors in urban infrastructure. The latest ongoing program of Government of India is Jawaharlal Nehru National Urban Renewal Mission (JNURM) where the urban infrastructure of 63 select cities is being renewed at a cost of US $ 28 billion.

The Opportunities:

Urban infrastructure projects are eminently suitable for public-private partnerships. Arrangements such as Build-Own-Operate (BOO), Build-Own-Operate-Transfer (BOOT), Build-Own-Lease-Transfer (BOLT), are promising options.

The Central and state governments welcome private initiatives and public-private participation in sectors like water supply, sanitation, public transport, and township and land development. The Indian Government stands committed to provide support in the form of equity contribution, a package of concessions, dedicated levies to repay loans, and a transparent regulatory framework.

Private investors are encouraged to negotiate the concessions required to make their investments safe and paying.

One significant fact that investors should consider is that local agencies in India have shown phenomenal progress in the recovery of costs of services and some have achieved full cost recovery. The city of Visakhapatnam in Andhra Pradesh offers a good example of how cross-subsidisation between consumer groups can make water supply systems run on commercial principles. The municipal corporation of Ahmedabad in Gujarat has performed a remarkable turnaround from a perennially loss-making body to a highly profitable organisation and has already launched the country's first Municipal Bond.

Major World bank Urban Infrastructure projects coming up in Rajasthan and Kolkata

According to the Asian Development Bank, Asia will remain the world's fastest-growing area this year despite the adverse effects of SARS and the war in Iraq. India and China Dominating the growth in South Asia.

Water Supply

Privatisation could be introduced in case of new townships and projects for planning, designing, source development, execution of works, operation and maintenance including billing and collection. In case of metros and mega cities, water supply augmentation schemes for source development, conveyance of raw water, its treatment and bulk supply to the city water supply authorities, maintenance of pumping stations, water treatment plants and city distribution systems can be undertaken by private agencies.

Water scenarios are city-dependent. If there is an opportunity to jointly promote decentralized techniques, decentralized management, and delegation of management, even in limited respects to the local private entrepreneurs and communities, one should consider the initial situation, and adopt a more dynamic approach. Indeed, the Chennai example shows both governance and a technical-cum-managerial solidity of the system that allows capacity building through delegation and technical decentralization.

The traditional question of giving water to the private sphere as a concession versus leaving it within the public sphere can be examined in this very framework. There are no credible projects for a large (international) private water companies. On the contrary, and despite the doubts and hesitations on its possible implementation, Mumbai seems to mostly focus on schemes supported by large international organisations. Chennai at the moment is in the intermediary position, as it simultaneously considers local outsourcing for the water supply and sanitation operation, and large private companies as far as waste disposal is concerned.

River Linking Project

Linking of Rivers is of great importance, the project is of such a magnitude that it can happen once in the lifetime of a nation, it is Rs.5,60000 crore project of water linking rivers and is stipulated to be completed by 2016, and the project would benefit the nation as a whole.

The three member task force initially addresses four major issues.

1. To attain political consensus with all the states.
2. The finances for the project, the funding of the project by Govt. bodies as well as private sector. The initial estimate was put at 5.6 lakh crore.
3. The best mechanism to implement the project and to prioritise.

Opportunities:

By integrating all of them together for irrigation, drinking water, navigation, fisheries, recreation and power generation. The primary objective remains drought and food relief, employment generation and increase in food production, which can easily go up to 450 million tonnes through increased irrigation. Thus it is a multi-purpose project and the country's GDP itself can go up by about four to five percentage points.

Sewerage

Similarly, in case of sewerage and sewage treatment, works such as maintenance of pumping stations, sewage treatment plants and city sewerage systems could also be taken up. Keeping in view the ever-increasing demands for fresh water, the private agencies may also install tertiary treatment plants for reuse and recycling of sewage and industrial effluents for various non-domestic uses.

Solid Waste Management

Solid Waste Management is another activity which could be taken over profitably by the private sector provided resources recovery is contemplated to make the system self-sufficient and financially viable. In addition, efforts should be made to manufacture various equipment and machinery such as pipes, pumps, quality control equipment and machinery required in the water and wastewater treatment plants etc. within the country by various foreign manufacturing concerns in collaboration with the Indian companies as joint ventures for the Indian market.

Urban Public Transport

India has 23 metropolitan cities. The number is likely to go up to 40 by the year 2001. All offer attractive investment opportunities in public transport. City-wise studies have been carried out for Delhi, Bangalore, Calcutta, Chennai, Hyderabad, Mumbai, Ahmedabad, Jaipur, Surat, Jammu, Nagpur, Vijayawada, Lucknow, Cuttack and Bhubaneshwar.

India welcomes private investment in Mass Rapid Transit Systems (MRTS) and Light Rail Transit Systems (LRTS). Governmental support for such projects may include rights for development of property, foregoing returns/ dividends on any investments made by the

Government, the availability of budgetary sources for part-repayment of loans and tariff agreements.

The proposed Mass Rapid Transit System for Delhi offers good potential for public-private partnerships and the project is already in an advanced stage of planning. Bangalore and Hyderabad are also planning rail-based public transit systems.

Roads, Bridges, Flyovers

Bypasses to large cities and bridges are investment opportunities. There exists tremendous potential for private investment in construction and maintenance of ring roads, arterial and sub-arterial roads, bridges, flyovers and other facilities in cities.

Housing

The National Housing Policy, 1998 has been formulated to address the issue of sustainable development of infrastructure and for strong public-private partnership for shelter delivery. Private investment in the sector is brisk and the opportunities are unlimited. The Government would provide fiscal concession to carry out legal and regulatory reforms and create and enabling environment.

As per the action plan under the 2 million Housing Programme, Ministry of Urban Affairs and Employment has embarked upon facilitating construction of 7 lakh additional housing units in urban areas every year. HUDCO is entrusted with financing 4 lakh units and balance 3 lakh units per year will be met other HFIs recognised by National Housing bank, Cooperative Sector and Corporate Sector. As on 30.03.99, HUDCO has sanctioned schemes for construction of over 4 Lakh houses under the 2 million Housing Programme.

The Urban Land (Ceiling and Regulation) Act, 1976 was repealed through an ordinance notified on 11.01.99. This has since been approved by parliament and the Repeal Act notified on 22.03.99. Government has issued detailed guidelines to all State governments and Union Territories to protect the interests of people belonging to Economically Weaker Section and Lower Income Group.

The Ministry of Urban Affairs and Employment offers incentives to non-resident Indians and foreigner of Indian Origin as well as Overseas Corporate Bodies that are predominantly owned by them, for investment in Housing and Real Estate Sector.

Land and Township Infrastructure Development

Returns on projects for development of land in extended areas of large cities and new townships can be well above 20 per cent. A package of concessions is being worked out.

PPP MODEL

Empowered Committee means a Committee under the Chairmanship of Secretary (Economic Affairs) and including Secretary Planning Commission, Secretary (Expenditure) and the Secretary of the line ministry dealing with the subject.

Empowered Institution means an institution, company or inter-ministerial group designated by the Government for the purposes of this scheme.

Lead Financial Institution means the financial institution (FI) that is funding the PPP project, and in case there is a consortium of FIs, the FI designated as such by the consortium;

Private Sector Company means a company in which 51% or more of the subscribed and paid up equity is owned and controlled by a private entity;

Project Term means the duration of the contract or concession agreement for the PPP project;

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

Total Project Cost means the lower of the total capital cost of the PPP Project: (a) as estimated by the government/statutory entity that owns the project, (b) as sanctioned by the Lead Financial Institution, and (c) as actually expended; but does not in any case include the cost of land incurred by the government/statutory entity; and

Viability Gap Funding or **Grant** means a grant one-time or deferred, provided under this Scheme with the objective of making a project commercially viable.

Eligibility

1. In order to be eligible for funding under this Scheme, a PPP project shall meet the following criteria:

(a) The project shall be implemented i.e. developed, financed, constructed, maintained and operated for the Project Term by a Private Sector Company to be selected by the Government or a statutory entity through a process of open competitive bidding; provided that in case of railway projects that are not amenable to operation by a Private Sector Company, the Empowered Committee may relax this eligibility criterion.

(b) The PPP Project should be from one of the following sectors:

(i) Roads and bridges, railways, seaports, airports, inland waterways;
(ii) Power;
(iii) Urban transport, water supply, sewerage, solid waste management and other physical infrastructure in urban areas;
(iv) Infrastructure projects in Special Economic Zones; and
(v) International convention centres and other tourism infrastructure projects; Provided that the Empowered Committee may, with approval of the Finance Minister, add or delete sectors/sub-sectors from the aforesaid list.
(c) The project should provide a service against payment of a predetermined tariff or user charge.
(d) The concerned Government/statutory entity should certify, with reasons;
(i) that the tariff/user charge cannot be increased to eliminate or reduce the viability gap of the PPP;
(ii) that the Project Term cannot be increased for reducing the viability gap; and
(iii) that the capital costs are reasonable and based on the standards and specifications normally applicable to such projects and that the capital costs cannot be further restricted for reducing the viability gap.

Government Support

1. The total Viability Gap Funding under this scheme shall not exceed twenty percent of the Total Project Cost; provided that the Government or statutory entity that owns the project may, if it so decides, provide additional grants out of its budget, but not exceeding a further twenty percent of the Total Project Cost.
2. Viability Gap Funding under this scheme will normally be in the form of a capital grant at the stage of project construction. Proposals for any other form of assistance may be

considered by the Empowered Committee and sanctioned with the approval of Finance Minister on a case-by-case basis.

3. Viability Gap Funding up to Rs. 100 crore (Rs. One hundred crore) for each project may be sanctioned by the Empowered Institution subject to the budgetary ceilings indicated by the Finance Ministry. Proposals up to Rs. 200 crore (Rs. Two hundred crore) may be sanctioned by the Empowered Committee, and amounts exceeding Rs. 200 crore may be sanctioned by the Empowered Committee with the approval of Finance Minister.
4. Unless otherwise directed by the Ministry of Finance, the Empowered Institutions may approve project proposals with a cumulative capital outlay equivalent to ten times the budget provisions in the respective Annual Plan.
5. In the first two years of operation of the Scheme, projects meeting the eligibility criteria will be funded on a first-come, first served basis. In later years, if need arises, funding may be provided based on an appropriate formula, to be determined by the Empowered Committee, that balances needs across sectors in a manner that would make broad base the sectoral coverage and avoid pre-empting of funds by a few large projects.

Procurement process for PPP Projects

(1) The Private Sector Company shall be selected through a transparent and open competitive bidding process. The criterion for bidding shall be the amount of Viability Gap Funding required by a Private Sector Company for implementing the project where all other parameters are comparable.

(2) The Government or statutory entity proposing the project shall certify that the bidding process conforms to the provisions of this Scheme and convey the same to the Empowered Institution prior to disbursement of the Grant.

CONTRACT ADMINISTRATION AND CERTIFICATION PROCESSES

All process & systems involved in procurement & execution of public works have to have:

–Value for money
–Transparency
–Accountability
–Efficiency

TRANSPARENCY

Why?–Because public money is involved–Works are done for the general public–Should stand public scrutiny. How?–By putting in place an elaborate system of checks & balances–By defining in great detail processes, procedures, authority, responsibility–Making maximum information available to public. GOI has introduced RTI Act.

The question would be is it achieved? The answer is yes –by way of account codes, & works manuals. The next question would be at what cost? The response is that like everything else transparency comes with a cost; this is in terms of time taken. Necessity to comply with large number of rules tends to delay or slow down processes. Fear of violating the rules makes officers cautious thus further slowing down processes.

So what is the solution? A via-media needs to be adopted Rules should be modified to give greater freedom to project managers but simultaneously they should be held accountable for delivery. The hierarchy of objectives should be well defined.

ACCOUNTABILITY

Another issue is the accountability and one should have no doubts about it. A person has to be accountable for the work he does-whether procures/executes public works or does work for a private organization. It has only one issue, Accountability should go hand in hand with authority over processes.

EFFICIENCY

Efficiency is difficult to define. Normally efficiency is mistaken for economy. However a project executed with richer specifications, i.e. with higher initial outlay may be more economical as it reduces whole life cycle costs. Similarly a project executed faster may be more economical as it allows utility to be used early. Present situation of public works in India has its focus on saving costs, necessity of doing things faster has not been given due consideration

Now there has been a paradigm shift in the view point of the Government. Focus is shifting to faster and better delivery systems and harmonized procurement systems. There is a growing feeling that existing organizations, with their traditional processes, may not be able to meet expectations

NEED FOR IMPROVING EFFICIENCY

Need for improving efficient delivery of public works cannot be denied. All processes have to be efficient if money put in has to travel far and therefore a fresh look has to be given to the question how we define our goals? What processes we use? How we design utilities/buildings? How we select the agencies? While need for improved overall efficiency cannot be denied we have to ensure that:

- Systems followed are well defined
- Focus is clear

So far focus has always been on saving costs and normally lowest financial bids are accepted. Before a project is taken up the focus should be defined and transparency and accountability are not forgotten or relegated

Increase in efficiencies of processes alone will not yield desired results if efficiencies in actual construction practices are also not increased

Conclusion

Indian construction industry is poised to grow exponentially because of massive infrastructure building programs. This has created excellent opportunities for the construction industry in terms of business opportunity. The Indian economic environment and system and procedures would further boost the construction industry which would provide the basic physical infrastructure for the nation as well as other industries.

This poises several challenges for the Indian Construction Industry which have been highlighted in this article. CIDC is taking proactive measures to meet this challenges an help the industry to excel.

In case of any queries, please feel free contact to: cidc@vsnl.in

Appendix – I

Average Construction Material Price as on 1st October, 2007

Sl. NO.	Item	Unit	Price
1.	Cement – OPC	50 kg bag	Rs. 240
2.	Reinforcement Steel TMT – 12 mm dia	1000 kg	Rs. 3500
3.	Burnt Clay Bricks (9" x 4.5" x 3")	Each	Rs. 4.00
4.	Sand (coarse – local)	Cum	Rs. 700
5.	Stone aggregates (20 mm normal size)	Cum	Rs. 700
6.	Timber (Mango country wood round)	Cft	Rs. 390
7.	Petrol	Ltr	Rs. 44
8.	Lubricant – Grease	Kg	Rs. 105
9.	Paint – Synthetic Enamel White	Ltr	Rs. 870
10.	Bitumen Grade 60/70 Bulk	Kg	Rs. 21.48
Daily wages of Labour			
1.	Unskilled	Rs. 100 day	
2.	Semi – Skilled	Rs. 110 day	
3.	Skilled	Rs. 150 day	
Salary			
1.	Sr. Engineer (Civil)	Rs. 25,000 pm	
2.	Jr. Engineer (Civil)	Rs. 15,000 pm	

Appendix - II

CLASSIFICATION OF CONTRACTORS

Table below gives the categorization of contractors by the size of men they employ:-

S.N	No. of people employed by the agency	No. of Agency /contractors	%age	Category
1	1 to 200 persons	27,000	96.4%	Small
2	200 to 500 persons	800	2.86%	Medium
3	500 persons and above	200	0.74%	Major