
Indian Infrastructure : Role of RITES

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Prologue

RITES - the Infrastructure People. The Company has come a long way from its inception in 1974 and, apart from India, has operated in 62 countries. The Authors, who have a wide experience in international consultancy, have forcefully brought out the present spread of its consultancy

areas and as also its road map for the future. RITES' contribution in the infrastructure sector has also been highlighted. A must read for all interested in infrastructure consultancy both in India and abroad.

- Editor

Introduction

Much of the industrialized world is currently in the grip of recession due to the ongoing global financial crises (GFC) – allegedly triggered by the subprime mortgage crisis of USA in 2007. According to some analysts the recession is the worst since the great depression of 1930s. The world output and trade is forecast to shrink in 2009 – the first such contraction since the end of World War II. The recession is inflicting job losses and wealth loss on an unprecedented scale.

In an era of globalization, the GFC has impacted the economies of practically all countries in varying degrees and India is no exception. After a long spell of growth, the Indian economy is experiencing a downturn. Industrial growth is faltering, the current account deficit is widening, foreign exchange reserves are depleting and the Rupee is depreciating. There is gloom in the job market and stock markets have registered a sharp downward spiral.

India's growth is constrained by inadequate infrastructure. Building roads, ports, railways, power plants and laying thousands of kilometers of fiber optic cables to enable high bandwidth connectivity, will push up the current growth and accelerate future growth. In the present uncertain environment, created by GFC, any major investment towards infrastructure development by private sector can hardly be expected. The Govt. of India has, therefore, stepped in and injected three economic stimuli since December '08 and further economic stimulus packages /policy changes could possibly materialize to increase public expenditure on infrastructure, amongst other objectives, to steer the economy on the path of recovery.

RITES, as one of the largest infrastructure consultancy companies in the Public Sector in the country, is playing a pivotal role in the development of all sectors of India's infrastructure – be it Railways or Highways, Ports or Airports, Waterways or Ropeways, Urban Transport or Urban Engineering, Container Depots or Institutional Buildings, Power-Transmission, Distribution or Rural Electrification. The increased public spending on infrastructure envisaged during the 11th Five Year Plan (2007-12) presents a high growth opportunity for the Company. RITES will no doubt augment and marshal the necessary resources from within the company or in partnership with other expert agencies/organizations for making an ever increasing contribution towards national development in the coming years. A brief analysis and comment on the GFC and its impact on the Indian economy precedes the unfolding story of India's infrastructure growth and the sterling contributions being made by RITES.

The Global Financial Crisis

The current GFC is attributed to a multiplicity of factors, several of which are unique to this crisis, viz., the creation of complex and opaque assets, the failure of Rating agencies to properly assess the risk of such assets, and the application of fair value accounting, failure of Regulators in spotting and correcting the emerging weaknesses. The subprime loan losses in USA exposed other risky loans and over-inflated asset prices. With the losses mounting, panic developed in the international banking circles. The precarious financial situation was made more difficult by a sharp increase in oil prices.

The global explosion in prices witnessed in the new millennium, focused especially on commodities and housing. In 2008, the prices of many commodities rose so high as to cause genuine economic damage. Many price mile stones were passed in the course of the year. In January 2008, oil prices surpassed \$100 a barrel for the first time. In July 2008, oil peaked at \$147.30 a barrel. These high prices caused a dramatic drop in demand and prices fell below \$35 a barrel at the end of 2008. In the second half of 2008, the prices of most commodities fell dramatically on expectations of the diminishing demand in a worldwide recession.

This phase of exorbitant rise in asset prices and boom in economic demand is associated with extended period of easily available credit and inadequate regulation. However, as share and housing prices declined, many large and well-established investments and commercial banks in USA and Europe suffered huge losses resulting in massive public financial assistance. The global recession has resulted in a sharp drop in international trade, rising unemployment and slumping commodity prices. Social unrest and political changes have appeared in various parts of the world in the wake of the crisis.

The ILO (International Labour Organization) has predicted that at least 20 million jobs will have been lost by the end of 2009 due to the crisis, bringing the world unemployment to above 200 million for the first time. The number of unemployed people could increase by more than 50 million in 2009 as the global recession intensifies.

In mid October 2008, the Baltic Dry Index – a measure of shipping volume – fell by 50% in one week as the credit crunch made it difficult for exporters to obtain Letters of Credit.

In February 2009, the 'Economist' claimed that the financial crisis had produced a manufacturing crisis with the strongest decline in industrial production occurring in export-based economies. Some experts even say that the world is going through a period of deglobalization and protectionism after years of increasing economic integration. It is a grim situation which may not see a reversal in the short term.

Impact of GFC on the Indian Economy

It is a widely accepted opinion that the GFC should have had a minimal impact on India because: (i) Indian banking had no direct exposure to the subprime mortgage crisis, and (ii) India's growth is largely based on domestic consumption and domestic investment; external demand as measured by merchandise exports account for less than 15% of India's GDP (Gross Domestic Product).

However, the Indian economy has globalized rapidly during the past few years. The ratio of exports plus imports to GDP increased by more than 50 percent between 1997-98 and 2007-08 (from 21.2% to 34.7%). The growth of financial integration has been even more rapid. During the same 10 year period, the ratio of total external transactions has more than doubled from 46.8% to 117.4%. Corporate borrowing from external sources has also increased significantly.

Exhibiting a strong dynamism, economic growth in India during 2007-08 achieved a high 9% GDP growth despite the fact that the subprime crisis had already started to impact the USA and other major economies. However, the growth rate dropped steadily during 2008-09. Several other indicators, e.g., industrial production

and trade, also point towards a slowdown in the economy. The adverse effect of the GFC on the Indian economy is being felt through:

- the growing integration of India's financial markets with global financial markets;
- the growing trade links between India and the rest of the world; and
- the tightened global liquidity situation following increased risk-aversion of several banks and other lending institutions on account of loss of credibility of Rating Agencies, Accounting firms & Regulators.

As a consequence, businesses built on the outsourcing phenomenon are suffering, financial firms & real estate firms, which have levered themselves to a sharply growing economy, are deeply affected and export-oriented businesses are in trouble, despite the weakening Rupee, due to demand destruction in the world economy.

The most immediate effect of this crisis on India has been an outflow of FII (Foreign Institutional Investor) funds from the equity market. In 2007-08, net FII inflows into India amounted to \$20.3 billion. As compared with this, they pulled out \$11.1 billion during the first nine-and-a-half months of calendar year 2008, of which \$8.3 billion occurred over the first six-and-a-half months of financial year 2008-09.

Given the importance of FII inflows in driving Indian stock markets, the pullout triggered a collapse in stock prices. As a result, the Sensex fell from its peak of 21,206 in January 2008 to less than 10,000 by October 2008.

In addition, this withdrawal by the FIIs coupled with other factors has led to a sharp depreciation of the Rupee. While this depreciation may be good for India's exports that are adversely affected by the slowdown in global markets, it is not so good for those who have accumulated foreign exchange payment commitments.

The recession generated by the financial crisis in the advanced economies as a group, and the USA in particular, are adversely affecting India's exports especially software and IT-enabled services, over 60 per cent of which are directed to the USA. Real GDP growth and major sectors have shown strong signs of slipping.

Economic Revival through Infrastructure Spend

International experience shows that large government financial packages are required to ride out a recession. And measures running into thousands of crores of Rupees can only come from the national government. According to experts, the best way to get the Indian economy on its rails, because of its multiplier effects, is the

spending of the estimated \$400 billion (Rs. 20,000 billion) in infrastructure as outlined in the Eleventh Five Year Plan.

The Government of India will have to do most of the funding. One of the main reasons is that it is easier for the government to raise funds when compared to the corporate sector, because of the sovereign guarantee associated with it. Secondly, in uncertain times, even banks are inclined to park their surpluses in government securities rather than lend to corporate houses. Thirdly, it is much simpler for the government to get loans at a cheaper rate from international organizations such as the World Bank and the International Monetary Fund (IMF) than for any corporate body.

The challenges faced by infrastructure development in India are immense, but the opportunities for effective Public-Private cooperation that can set the nation on the super highway of long term prosperity are numerous. However, given the uncertain conditions, the Planning Commission's estimate that 30% of the \$400 billion (i.e., \$120 billion) that Indian infrastructure needs would come from the public-private partnership (PPP) route or build-operate-transfer (BOT) projects, may not materialize. It may possibly be only half – \$60 billion at the most considering that private sector is risk-averse.

The Government of India has, therefore, decided that India Infrastructure Finance Company Ltd. (IIFCL) will refinance 60% of commercial bank loans for PPP projects in critical sectors over the next 18 months, for which it can raise Rs.40,000 cr. Under the PPP mode, 54 infrastructure projects at a total cost of Rs.67,700 cr. have been given approval and 23 projects worth Rs.27,900 cr. have been approved for 'viability gap funding'.

Stimulus Measures by Govt. of India

The Indian economy has not suffered gravely like the economies of Europe, North America and Japan due to the global financial crisis. Nevertheless, the fiscal and policy response of the government of India has been prompt and effective. This is helping the market to recover quicker than expected. The decline in India's industrial production is significantly less than the other Asian economies. In fact, some sectors of industry, e.g., Automobile, Cement & Steel are already showing signs of increased activity.

So far the government has announced three Stimulus Packages besides the several Monetary Policy measures undertaken by the RBI (Reserve Bank of India) in order to ensure that the Indian economy weathers the global financial crises successfully. Taken together, the measures put in place have ensured that the Indian financial markets continue to function in an orderly manner and a reasonably comfortable liquidity position exists in the domestic market.

The Government of India is attempting to address the issue of implementation of Infrastructure Sector Projects and has given additional funds for infrastructure as part of the First Stimulus Package unveiled on December 7, 2008. The First Stimulus Package envisaged the following (mainly fiscal) measures:

- Rs.20,000 cr. more toward plan expenditure.
- Across-the-board cut of four percent in the ad valorem central value added tax.
- Interest subvention of two percent on export credit for labour intensive sectors.
- Additional allocations for export incentive schemes.
- Full refund of service tax paid by exporters to foreign agents.
- Incentives for loans on housing for up to Rs. 5 lakhs and upto Rs. 20 lakhs.
- Limits under the credit guarantee scheme for small enterprises doubled.
- Lock-in period for loans to small firms under credit guarantee scheme reduced.
- IIFCL allowed to raise Rs.10,000 cr. through tax-free bonds.
- Norms for government departments to replace vehicles relaxed.
- Import duty on naphtha for use by the power sector is being reduced to zero.
- Export duty on iron ore fines eliminated.
- Export duty on lumps for steel industry reduced to five percent.

A Second Stimulus Package (comprising mainly monetary and credit policy measures) was announced on January 2, 2009. The key elements of this package are as follows:

- An SPV would be designated to provide liquidity support against investment grade paper to Non Banking Finance Companies (NBFCs) fulfilling certain conditions. The scale of liquidity potentially available through this window would be Rs.25,000 cr.
- An arrangement would be worked out with leading Public Sector Banks to provide a line of credit to NBFCs specifically for purchase of commercial vehicles.
- Credit targets of Public Sector banks were revised upward to reflect the needs of the economy. Government would monitor, on a fortnightly basis, the provision of sectoral credit by public sector banks.

- Special monthly meetings of State Level Bankers Committees would be held to oversee the resolution of credit issues of micro, small and medium enterprises by banks. Department of MSME and Department of Financial Services would jointly set up a Cell to monitor progress on this front.
- The guarantee cover under Credit Guarantee Scheme for micro and small enterprises on loans was increased from Rs.50 lakhs to Rs.1 cr. with a guarantee cover of 50%. In order to enhance flow of credit to micro enterprises, it was decided to increase the guarantee cover extended by Credit Guarantee Fund Trust to 85% for credit facility upto Rs.5 lakhs. This will benefit about 84% of the total number of accounts accorded guarantee cover.
- State Governments are facing constraints in financing expenditure because of the slower revenue growth. To help maintain the momentum of expenditure at the state government level, states will be allowed to raise in the current financial year additional market borrowings of 0.5 % of their Gross State Domestic Product (GSDP), amounting to about Rs.30,000 cr. for capital expenditures.
- IIFCL was authorized to raise Rs.10,000 cr. through tax free bonds by 31 March 2009 for refinancing bank lending of longer maturity to eligible infrastructure bid-based PPP projects. This would largely enable the funding of highways and port projects on hand of about Rs.25,000 cr. To fund additional projects of about Rs.75,000 cr. at competitive rates over the next 18 months, IIFCL would be allowed to access in tranches, an additional Rs.30,000 cr. by way of tax free bonds, once funds raised in the current year are effectively utilized.

The Third Stimulus Package was announced on February 24, 2009 having the following provisions:

- Service Tax Rates reduction by 2%.
- Central Excise Rate reduced by 2%.
- 4% across- the -board cut in Excise Duty, which was announced in the First Stimulus Package (in December, 2008) will be valid even beyond March 31, 2009.
- Customs duty exemption on naphtha imports for generation of electric energy has also been extended beyond March 31, 2009.
- General rate of central excise duty reduced from 10% to 8%.
- Government of India has extended the flexibility to States to deviate from fiscal consolidation targets by 0.5% beyond March 31, 2009, to boost infrastructure and enable them to generate more employment.

The measures already taken or in the pipeline to stimulate the economy will revitalize development activities in the infrastructure sector, fully supported by the central and state governments, who are seized of the problem.

The infrastructure sector in India is facing a major challenge on account of the significant shortfalls being felt in vital sectors like power, transport and water supply as the need for more facilities is increasing with the growing population. RITES is actively involved in projects and ventures across the infrastructure sector including roads, railways, ports, airports, power-transmission distribution, urban engineering, container depots, industrial parks, logistic parks and other facilities. RITES is assisting governments as well as private sector in accelerating the process of implementing infrastructure projects, particularly in the transport sector.

Indian Infrastructure & RITES

The 11th Five Year Plan (2007–2012) of the Planning Commission envisages a growth rate of 8.5% during the plan period with focus on infrastructure development. Infrastructure, defined as road, rail, air & water transport, power generation, power transmission & distribution, telecommunications, water supply, education and storage will see increased investment from 4.6% of GDP in the 10th Five Year Plan to between 7 to 8 % in the 11th Five Year Plan.

The investments are envisaged through various programmes such as Bharat Nirman Programme, Jawaharlal Nehru National Urban Renewal Mission (JNNURM), National Rural Employment Guarantee Act (NREGA), Pradhan Mantri Gram Sadak Yojana (PMGSY), National Highways Development Programme (NHDP), Special Accelerated Road Development Programme (SARDP), Rajiv Gandhi Grameen Viduyutikaran Yojana, Accelerated Power Development Reform Programme, etc.

The investments planned for the Infrastructure Sector during the 11th Five Year Plan are more than double the level as were in the 10th Five Year Plan and are being met through public resources, private capital and foreign direct investment.

Investments in Infrastructure Sector

Sector	Tenth Plan	Eleventh Plan	Increase
	Rs. (cr.) (Anticipated Investment)	Rs. (cr.) (Projected Investment)	(%age)
Electricity/Power	2,89,137	6,16,526	113%
Roads & Bridges	1,30,131	3,11,816	140%
Telecommunication	92,084	2,67,001	190%
Railways	83,057	2,55,000	207%
Irrigation	1,31,659	2,17,722	65%
Water Supply and Sanitation	63,781	1,99,127	212%

Table Contd.

Ports	5,399	73,941	1270%
Airports	8,789	34,697	295%
Storage	9,442	22,378	137%
Gas	8,713	20,500	135%
Total	8,22,192	20,18,708	146%

Highways

India has the second largest road network in the world spanning 3.3 million km, serving 85% of passenger traffic and 61% freight traffic in the country. The National Highway Development Programme (NHDP) aims to develop a massive 50,000 km of National Highways under 7 phases by December 2015, while the PMGSY aims at developing 3.7 lakhs km of roads in Rural Areas.

It is anticipated that by the year 2012, an investment of Rs.2,20,000 cr. will be required for modernization & upgradation of National Highways alone under the National Highways Authority of India (NHAI). In the 10th Five Year Plan, the National Highway Development Programme consisting of four laning of the golden quadrilateral (NHDP1) with length of 5,846 kms., and the North-South and East-West corridor (NHDP2) with a length of 7,472 kms, were taken up.

In the 11th Five Year Plan, emphasis is being given to the Special Accelerated Road Development Programme for North-Eastern Region (SARDP-NE) to connect the Northeast with rest of the country. Expanded programme for highway development going beyond NHDP1 & 2 and to include NHDP3 & 4 is proposed. In fact, Government has given its approval for six laning of the Golden Quadrilateral and 800 km of other sections under NHDP5 at a cost of Rs. 41,210 cr. It is also planned to develop 1,000 km of Expressways under NHDP 6 at a cost of Rs.16,680 cr. and Ring Roads, Bypasses, etc., under NHDP 7 at a cost of about Rs.33, 000 cr..

An outlay of Rs. 20,000 cr. is estimated for works on National Highways maintained by the States/Union Territories through the State PWDs during the 11th Five Year Plan and Rs. 2,500 cr. for improvement of National Highways under the Border Roads Organization. Besides the National Highways, an investment of Rs.30 - 40,000 cr. is expected to be made on State Highways over the next five years.

Due to lack of resources, States have not been giving adequate importance to the maintenance of roads. The Twelfth Finance Commission has, therefore, recommended additional grants to the tune of Rs. 15,000 cr. for maintenance of the Roads & Bridges for the period 2006 - 2010.

RITES has provided independent consultancy services and undertaken the design and construction supervision of more than 200 Highway Sector Projects in India through its full-fledged Highway Division equipped with the latest facilities and equipment and computer based designing of highways.

Railways

The proposed outlay on various Programmes of the Indian Railways during the 11th Five Year Plan is around Rs.2,55,000 cr. This envisages augmentation and modernization of the Railway Infrastructure including provisioning of Rs.10,000 cr. for High Speed Passenger Corridors (for speeds of 300 to 350 kmph) – one each in Northern, Western, Southern & Eastern Region of the country, an outlay of Rs. 28,000 cr. on the Eastern & Western Dedicated Freight Corridor Project (DFC) and Rs.55,000 cr. on other Dedicated Freight Corridors. Rs.2,700 cr. are earmarked for Modernization of 10 Workshops and Rs.4,750 cr. for Metropolitan Transport Projects (excluding the MUTP Phase - II in Mumbai). Port connectivity projects with an outlay of Rs.3,800 cr. and Electrification & Electrical Works amounting to Rs.7,000 cr. are also proposed. The next five years will also see investments towards expansion of Railway Network in Jammu & Kashmir as well as Gauge Conversion and other Railways Projects in the Northeast.

Railways plan to develop 23 world class stations with 4 (including New Delhi) planned in the first phase approximate modernization cost of each would be in the region of Rs. 5,000 cr. 300 other Railway Stations are also planned to be upgraded to the status of model stations.

Dedicated Freight Corridor Corporation of India Ltd. (DFCCIL) has since been set up to undertake planning & development, construction, maintenance & operation of the Eastern & Western Freight Corridors. The Dedicated Freight Corridors will cater to freight trains with trailing loads of 15000 tonnes and 25 tonnes axle load (upgradable to 32.5 t) and train speeds of 100 kmph max. Several SEZs are proposed along the DFC, which will have 6 logistic parks including Container Depots. The Western Sector will have 4 – at Navi Mumbai , Ahmedabad, Vapi & Rewari, while 2 will come up on the Eastern Sector near Ludhiana & Kanpur.

An SPV named DMICDC (Delhi Mumbai Industrial Corridor Development Corporation) has been established for facilitating, promoting and establishing industrial services along the western dedicated freight corridor. A 150-km stretch on both sides of the proposed Western rail corridor is proposed to be developed as the “industrial corridor”. In the first phase, four industrial nodes are planned – Palanpur-Mehsana, Ahmedabad-Dhoera, Vadodara-Ankleshwar and Bharuch-Dahej. In the second phase two more such nodes will be established between Surat and Jazira, Valsad and Umargam. These industrial nodes will be developed as “global manufacturing hubs”. Covering about a dozen SEZs on its route, the Delhi Mumbai Industrial Corridor will use the high-speed Western Freight Corridor to transport finished goods to Mumbai or other west-coast ports. It is expected that this will usher in an era of high growth in the beneficiary States.

Other Infrastructure Investments proposed to be made by Indian Railways are:

- Wheel Manufacturing Plant at Chhapra (Cost Rs. 1200 cr. approx.)

- New Rail Coach Factory at Rae Bareli (Cost Rs. 1700 cr. approx.)
- New Diesel Locomotive Production Unit at Marhaura (Cost Rs. 1500 cr. approx.)
- New Electric Locomotive Production Unit at Madhepura (Cost Rs. 1500 cr. approx.)

A significant proportion of the investment is expected to come from private sector through the PPP route. Production & maintenance of rolling stock may witness corporatisation or outsourcing in some areas.

ITES is the market leader in the railway field providing a complete range of services from concept to commissioning in the Rail Sector including investigations, survey and design of tracks, bridges & tunnels, signaling system design, rolling stock design, railway electrification and design of railway production units and workshops.

The preliminary engineering traffic and final location survey for the 2800 km long Dedicated Eastern & Western Freight Corridors has been carried out by ITES.

Project Reports for the cast wheel plant at Chhapra , coach overhaul workshop at Harnaut and the new rail coach factory in Kerala have been submitted by ITES recently. ITES is presently executing, on a Turnkey basis, the project for enhancement of capacity of Rail Coach Factory, Kapurthala from 1400 to 1500 coaches per annum.

The Feasibility Study for the Ahmedabad-Mumbai-Pune High Speed Rail Corridor has been awarded to a ITES consortium.

Ports & Inland Waterways

Indian Ports are expected to handle 800 million tonnes of cargo by 2012 as compared to 520 million tonnes handled in 2005. Besides augmentation of Port Infrastructure, this will also require investments to improve railroad connectivity of Ports with the hinterland.

An investment of Rs.50,000 cr. has been envisaged in the 11th Five Year Plan for construction/reconstruction of berths, additional equipment & crafts, deepening of channels and other projects for development of Major Ports in the country. Further, an investment of about Rs.31,000 cr. will be made in the 11th Five Year Plan period for development of Minor Ports including green field projects, Captive facilities and Upgradation of existing ports. Bulk of the capacity augmentation would be undertaken through PPP and captive users.

ITES has successfully undertaken various port projects involving development of new berths and upgradation of facilities of existing berths as well as many assignments for development of Inland Water Transport over major rivers in the country.

Airports

In the Civil Aviation Sector, a plan for Airport Infrastructure upgradation has been developed, which envisages an investment of Rs.35-40, 000 cr. by 2012. This will cover development of as many as 35 non-metro Airports, Green Field Airports and Airports in the North -East Region. The 35 non-metro Airports are envisaged for development by Airport Authority of India making use of both in-house capacity and PPP route (for non-airside work).

RITES services are being utilized for development of non-metro airports, development of airports strips in Uttar Pradesh revival of 32 non operational airports of Airport Authority of India. RITES has also prepared the DPR for the Navi Mumbai International Airport.

Power & Steel

Additional Power Generation capacity to the extent of 60,000 MW is planned during the 11th Five Year Plan with emphasis on:

- An efficient inter state and intra state transmission system.
- An efficient distribution system.
- Rehabilitation of thermal stations & hydro stations.
- Development of ultra mega power stations (4000 MW) through PPP.

This will involve an investment of the order of Rs.6,00,000 cr. in power sector. Almost 50% of the investment will go towards setting up additional Thermal Power Generation Capacity of about 46,000 MW. Another Rs. 1,40,000 cr. will be required for proposed electrification of all villages/hamlets with population of more than 300, by 2012. Further, Rs.40,000 cr. are earmarked for improvements to the Urban Distribution Network under the APDRP (Accelerated Power Development Reform Programme) and schemes for reducing losses to 15% in power distribution sector.

During the 11th Five Year Plan, it is projected that crude steel production in the country will increase from about 46 million tonnes in 2007 to 80 million tonnes in 2012. These steel plants and power plants need extensive in-plant rail infrastructure and even captive rail network for movement of coal/ ore from nearby mines to the plants. The development of Rail Infrastructure for the integrated steel plants and the super power stations has been undertaken by RITES from concept to commissioning stage. The Merry-Go-Round captive railway system with in-motion loading /unloading of coal in train for the various Super Thermal Power Stations of NTPC is an innovation by RITES in the country.

RITES is currently providing services to the various steel plants of SAIL and Power Stations of NTPC and DVC and several Iron Ore Mines for upgradation of their Railway Infrastructure.

Mass Rapid Rail Transit Systems

An investment of more than Rs.50,000 cr. will be made on Metro Rail Projects during the 11th Five Year Plan period. Currently, Metro Rail Projects are being planned in 26 cities in India.

RITES has framed and submitted the Detailed Project Reports for the Ahmedabad, Bangalore, Chennai, Hyderabad, Kolkata & Mumbai Metros. RITES is currently providing consultancy & Project Services for the DMRC Phase-II & Delhi Airport Express Link Project and the Metro Project in Bangalore.

Urban Renewal

Under the JNNURM (Jawaharlal Nehru National Urban Renewal Mission) launched in December 2005, selected 63 cities will be taken up for integrated development of infrastructural services through urban renewal projects for which substantial provision of funds will be made by the Government.

Provision of Bus Rapid Transit Systems (BRTS) is envisaged in the 11th Five Year Plan in all cities with population of 10 lakhs and more. There are 35 such cities in the country, and planning for BRTS is in progress for 11 cities out of which proposals have been drawn up for 9 cities and submitted for approval of Central Govt. grant under JNNURM. An investment of Rs.9,500 cr. is expected to be made during the next 5 years for BRTS in the 11 cities.

In order to prevent environmental deterioration, the 11th Five Year Plan aims to integrate development planning and environmental concerns. The goal is to ensure that by the end of 11th Five Year Plan no untreated sewage or effluent flows into rivers from cities/towns. Cities will have to evolve systems for solid waste management. The investment on Urban Water & Sanitation Sector will be of the order of Rs.2,300 cr. for 63 cities during the plan period.

RITES is making a significant contribution in the field of environment engineering, urban engineering and road transport.

Special Economic Zones

Special Economic Zones (SEZs) are being set up to promote industrial growth. The Government has already given formal approval to 189 SEZs and, in principle, approval to 146 SEZs and more are expected. Huge investments will be needed for development of the Infrastructure in SEZs, viz., Roads, Rail connectivity, Airport, Port, ICD, Water & Power Networks, etc. – all areas of RITES expertise/ operations which

need to be oriented towards providing customized services to the private sector developers of SEZs.

Institutional Buildings

Building construction will witness a spurt in growth due to major investments expected in Rural & Urban Infrastructure, Commercial & Residential Buildings, Transport Terminals, Logistics Parks, and Warehouses, etc.

Expansion of Education is being taken up in a big way under the Bharat Nirman Programme requiring development of Educational Institutes and allied Infrastructure. State Governments supported by Central assistance are to implement major and medium education projects. The total requirement of funds is expected to be of the order of Rs. 80,000 cr. in Education.

RITES is providing Project Management Consultancy Services including Design, Quality Assurance to Central & State Governments and Private Sector for important building projects like Institutional Buildings, Convention Centres & Auditoriums, residential accommodation and housing colonies, spread all over India.

EPC/ BOT Projects

Project Management Consultancy assignments have been contributing significantly to the business of RITES. However, the trend now is that clients prefer to assign total responsibility for jobs on Engineering, Procurement and Construction (EPC) basis to avoid dealing with numerous agencies.

In order to cope up with the changing business environment, RITES has in 2008 modified its Articles of Association to enable the Company to undertake contracts on EPC, Build-Operate- Transfer (BOT), Build-Own-Operate-Transfer (BOOT), Build-Lease-Transfer (BLT) or any other like basis. Following this amendment, it has entered into Joint Ventures with private sector companies to participate in Ganga Express Way & other Highway BOT Projects. It is also actively considering JV with foreign partner to participate in modernization of New Delhi Railway Station & Setting up of an SPV with a local company for leasing of rail assets and such other initiatives in future to protect its market share.

Select New Opportunity Areas

RITES is continuously upgrading the service spectrum of the Company to bring it in line with the changing needs of the economy and altered perceptions of its clients. The opportunities for pure consultancy are on the decline but increasing for value added services and provision of total solutions including financial participation by way of collaboration or as a token of commitment to the project.

RITES will actively explore new areas of business, which present significant prospects and have a relatively good fit with the core competency profile of the Company, as mentioned hereunder:

Enhancement of Services in Existing Sectors

- (a) **Operation & Maintenance (O&M) of Metro Rail Systems:** RITES is a strong player in Metro Rail Systems and is already providing a whole range of services extending from Feasibility Studies/Traffic Studies, DPRs, Engineering and Designs, Station Architecture to construction supervision and management. Metro Rail Systems coming up in a large number of cities will need O & M services in the post-commissioning stage, which RITES can exploit gainfully in the areas of maintenance of Rolling Stock, Track & OHE.
- (b) **Training of Metro Rail Staff:** The Metro Rail Systems that will be established in the country will need sizable manpower resources duly trained. RITES can leverage its expertise and involvement as Consultant to several metro rail systems to play a dominant role in providing comprehensive training services covering all aspects/stages in the Operation & Management of Metro Rail Systems.
- (c) **Contract Management of Infrastructure Projects on behalf of Govt. Authorities/Organisations, eg., Highway projects for NHAI.**
- (d) **Technical Consultancy:** Vendor development support, prototype testing and approvals, etc.

Enter into New Emerging Sectors

- (a) **Infrastructure Development in SEZs:** Large multi-product SEZs are being developed by private sector in the country presenting significant opportunities in:
 - Technical consultancy during initial preparatory period.
 - Contract monitoring services (during development phase).
 - Inspection and quality monitoring services.
 - Infrastructure development and O&M services for Rail Terminals, Airport and Air Cargo Complex, ICD, Port, Water Supply Network & Treatment Plants, Sewerage, Electric Supply Network, etc.
- (b) **Wagon maintenance for private container operators**
- (c) **River Linking Projects :** This is a promising area with good business potential in the future.

Moving up the Value Chain

This entails a change of role to ownership through equity participation, viz.:

- (a) Undertake BOT/ PPP Projects and Concessions in India
- (b) Form JVs for End-to-End Transport Solutions: There will be significant opportunities for providing end-to-end logistic solutions for movement of coal, iron ore, lime stone, etc., for Thermal Power Plants/ Steel Plants/ Cement Plants, etc., which RITES may undertake in its individual capacity or through a JV with another party depending on size of project and financial participation needs.
- (c) Participation in manufacture: Strategic equity stake in select manufacturing ventures of modern rolling stock in India.

The Future

The India infrastructure market will continue to see intense action during the 11th Five Year Plan and 12th Five Year Plan period (2012-17) as well. The total outlay of the 12th Five Year Plan is expected to be around Rs.40 lakh cr. as against Rs.20 lakh cr. for the 11th Five Year Plan. In keeping with its culture and entrepreneurial spirit, RITES will constantly strive to build upon its existing strengths and upgrade its capability and capacity to expand its operations in the India infrastructure market. RITES is helping clients to translate their ideas into practical projects by developing pre-feasibility reports, feasibility reports and detailed project reports

RITES' domain knowledge in transport infrastructure, its superior technical skills and innovative approach to problem solving will allow it to be a strong player in the infrastructure market attracting new clients and retaining existing clients. As in the past, clients will continue to bank upon RITES to convert their dreams into reality, secure in the comfort that they can count on the high technology, skills and reliable delivery from one of the leading infrastructure companies in India and rated amongst the top 100 engineering consultancy organizations world wide. In a PPP model it will be called upon to act as a key link between the government and the private sector in facilitating the development of infrastructure

RITES, recognized as the national think tank on transport infrastructure, will continue to assist the central and the state governments in developing national and state level plans and projects for speedy development of infrastructure, particularly transport infrastructure, and thus contribute its mite in nation building and towards mission of taking India into the league of developed countries.



Independent Engineer Services for development of Gangavaram Port, Andhra Pradesh



Consultancy services for development of new Inland Container Depot (Dadri)



Consultancy Services for Jubilee Bridge (Substructure under construction)



Construction supervision of four laning of NH-46, Tamil Nadu



Pre-construction survey of new railway line from Katra to Srinagar – Baramulla via Qazigund in J&K



Design & construction management of airfield pavement upgradation at Bangalore



Operation & Maintenance of rail system at NALCO's S&P complex at Angul.



Design & construction management services for Delhi Metro Project, Phase-I



Project Management, Quality Assurance & Commissioning of Gulmarg Gondola ropeway.