INDIA's INFRASTRUCTURE

Presented By:

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Overview

India has emerged as one of the fastest growing economies of the world. It is expected that India will sustain an economic growth rate of 8% till 2012 and an expected annual compound growth rate of 8.5%. India is the second most populated country of the world. The strong growth in population along with its flourishing economy is generating enormous pressures to expand and modernize India's infrastructure. Infrastructure expansion and modernization plans provide many investment opportunities, it is expected that more around USD 475 billion worth of investment would flow into India by 2012.

The total length of roads in India is over 3 million Km, India has one of the largest road networks in the world. The transport sector in India accounts for around 6 % of its GDP; roads alone contributing over 4% of GDP. The current rail network in the country extends over 64000 routes Km; it contributes 2.3% of India's GDP.

The Indian power sector stands fifth largest in the world in electricity generation capacity and it has world's third largest transmission and distribution network. Total installed capacity in India is more than 176990 MW and it is expected to rise by another 100,000 MW by 2012. In India, major source of power generation is thermal power, followed by hydel, renewable and nuclear energy.

India has a long coastline; about 90% of sea borne trade is handled via major ports of India. India has a coastline of 7600 Km that has 13 major ports and 187 non-major ports. Ports play an important role in facilitating India's international trade as well as in generating economic activities in their surroundings.

The Indian aviation industry is one of the fastest-growing aviation industries in the world with private airlines accounting for more than 75 per cent of the sector of the domestic aviation market. India aviation sector has undergone a transformation from being an over regulated sector to an open and liberal sector. Government has been encouraging private investments in aviation infrastructure, such as privatization of Mumbai and Delhi airports.

Oil & Gas provide 45% of India's primary energy requirements. Oil and Natural Gas Commission (ONGC) and Oil India Limited (OIL), both public sector companies, are the largest with about 82% share of the total domestic oil and gas production, The Exploration and Production (E&P) sector is witnessing increasing private sector participation, both domestic and foreign.

Indian infrastructure presents a very promising picture with lot of developments taking place and to be undertaken in various sectors. India has re emerged as one of the fastest growing nations in the world with core focus on manufacturing and services.

Here we present an overview of various sectors

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ROADS & HIGHWAYS:

Introduction

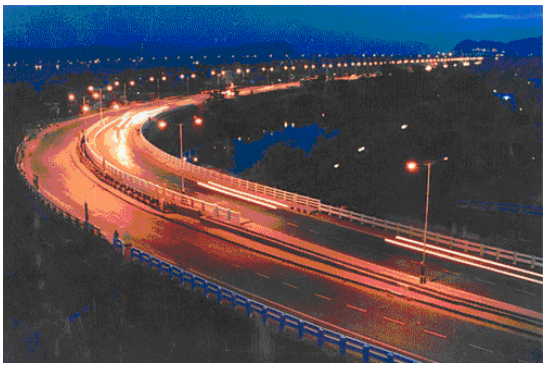
Roads have a very significant role in the social and economic development of a country. The transport sector in India accounts for around 6 % of its GDP; roads alone contributing over 4% of GDP. The Indian road network is over 3.32 million Km. It ranks number 3 in terms of having the largest road network in the world following America and China. The Indian road network includes National highways, state roads and rural roads. Approximately 85% passenger traffic and 65% freight traffic is carried by Indian Roads.

National Highways	• Spread across more than 70500 Km.
State Roads	• Comprises of state highways, district roads etc. • The network is spread across 600000 Km.
Rural Roads	• Spread across 2,650,000 Km.

Updates and Investment Opportunities

NHAI- National Highways Authority of India is the nodal agency taking care of the roads infrastructure in India. It initiated a program NHDP (National highways development program)- world's biggest public private partnership program for highway development. Main aim of NHDP was to develop 50,000 km of roads by 2015 involving an investment of over Rs 3 trillion. So far, 70% of planned length for the development is identified while around 30% of the planned length has been developed; another 20% is in implementation phase.

Under NHDP Phase I & II, 4-laning/6-laning of national highways is undertaken; it also includes Golden Quadrilateral, East West and North-south corridors. Golden quadrilateral is the name given to the roads connecting four major cities - Delhi, Mumbai, Chennai and Kolkata, whereas East-West corridor connects Salem to Kochi in the East to Porbander in west; North- South corridor shows connectivity between Srinagar and Kanyakumari.



NHDP has undertaken projects on PPP basis, with BOT- toll being the most popular method., also the private investments under this program has increased tremendously from Rs 80 billion (in March 2005) to Rs 1260 billion (in June 2011). The road network in India has grown from 0.4 million km in 1950 to 3.32 million km in 2010. The Road network still seems inadequate as 80% of the traffic is carried by only 15% of road network. To overcome the limitations and to realize the economies of scale, one of the key steps taken by NHAI is to develop larger projects- Mega Highways and Express Ways. There are plans to develop 10 mega highways projects around 500 km length, involving

an investment of Rs 45 billion – Rs 50 billion. In addition to this, NHAI also plans to develop 1000 Km of expressways and over 18,600 km of Greenfield expressways by 2022.

The twelfth five- year plan shows many promising opportunities. It shows an investment of around Rs 4,900 billion, 40% of which is expected to come from private sector. Around 100 projects in 20 states have been identified and are expected to be bid in coming months. The state roads are also showing rapid develop opportunities, around 123 PPP projects worth Rs 437 Crores are being proposed by different states of India, moreover according to planning commission, around 260 state highway projects are in the planning phase and will be awarded on a PPP basis by the end of 2011-12. The rural roads is being developed under the union government's Pradhan Mantri Gram Sadak Yojna (PMGSY). So far around 319,500 Km of rural road length has been developed, the funding provided by the Union government.

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RAILWAYS:

Introduction

Indian Railways (IR) is the world's largest passenger carrier (in terms of passenger Km) and the fourth largest freight carrier under the control of a single management. The current rail network in the country extends over 64000 routes Km. It daily operates around 14000 trains- 8900 of which are passenger trains and the rest being the freight trains. It contributes 2.3% of India's GDP.

Updates and Investment Opportunities

IR has emerged as a bulk freight carrier; the container traffic movement by rail has shown a considerable increase. The container traffic in 2010-11 was 36.86 million tonnes (mt) - an increase of 7.3% over the previous year and it is expected that there will be further increments to reach upto 210 mt by 2020. There has also been an increment in the passenger traffic, which grew by 12.5%.

In project implementation BOT (Build-Operate-Transfer) has emerged as the preferred model among public-private partnerships (PPPs) in IR since it is more investor friendly and provides substantial investment opportunities for private agencies in infrastructure projects. Under this model , projects have been executed primarily through the setting up of special purpose vehicles (SPVs) that finance, design, build, operate and maintain for a given time period then hand over to the Ministry of Railways.

Indian Railways' Vision 2020 document states that an investment of Rs 1407.48 billion in short term (2010-12) and Rs 12470.94 billion in long term (2012-20) would be required to develop the rail network. A significant part of this investment would be supplied by the government, and for the rest PPP (Public-Private Partnership) could be considered. The PPP investments would be usually required for developing high speed corridors, world-class stations, multifunctional complexes, connectivity works etc.

Six high speed rail corridors are selected by the ministry of railways for conducting feasibility studies, they are-

-Delhi- Chandigarh-Amritsar,
-Pune-Mumbai-Ahmedabad,
-Hyderabad-Dornakal-Vijaywada-Chennai,
-Chennai-Bangalore-Coimbature ernakulam,
-Howrah-Haldia
-Delhi-Agra-Lucknow-Varanasi-Patna

A proposal to develop a railway line between Akhura, Bangladesh and Agartala, Tripura is also planned.

Ministry of Railways has set up a special purpose vehicle- DFCCIL (Dedicated

Freight Corridor Corporation India Limited.) to develop separate freight corridors across the country. It is set up to take care of the growing need for a separate freight corridor. DFCCIL undertakes planning and development, mobilization of financial resources and construction, maintenance and operation of the rail corridor and mega multimodal parks that are planned under the PPP model. The project will have an investment of approximately US$ 17 Billion Investment. The funding for the project is provided by JICA(for western Corridor) and World bank (for eastern corridor). The project will be implemented in phases- in the first phase; DFCCIL will be constructing two corridors- the western DFC and the Eastern DFC- spanning a total length of 3268 route Km. The eastern Corridor starts from Ludhiana in punjab and terminates at Dankuni in West Bengal. The western corridor will traverse the distance from Dadri to Mumbai.

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POWER:

Introduction

The Indian power sector stands fifth largest in the world in electricity generation capacity and it has world's third largest transmission and distribution network. Total installed capacity in India is more than 176990 MW and it is expected to rise by another 100,000 MW by 2012. In India, major source of power generation is thermal power, followed by hydel, renewable and nuclear energy.

Updates and Investment Opportunities

There has been an unprecedented growth in this sector in India during the eleventh plan period. The sector added a generation capacity of around 32,000 MW between 2007-08 and 2010-11. The Indian government targets 'Power for all' and to achieve this target more than 100 thermal and hydro projects have been sanctioned; in addition to this 30 supercritical projects and ultra mega-power projects (UMPP) are under construction and many more set to be commissioned. The project size of each UMPP is around 4,000 MW and requires an investment of Rs160 billion-200 billion. Government has also announced ambitious wind energy targets, to have more than 22,000MW of wind power capacity in place in the coming years, this leads way for many wind energy projects to come up. Jawaharlal Nehru National Solar Mission, which was approved by government of India in November 2009, is believed to lead the country's efforts to add a significant portion of renewable to the energy mix. The solar plan will be executed in three phases, with a final target of 20,000MW.

Of late the transmission and distribution network has seen a higher growth-increase in transmission line length as well as transformer capacity at the 400 KV level from 200 KV. Currently, a 765 KV network is being constructed, and 1200 KV and 800 KV HVDC lines will be set up over the next few years. Power Grid Corporation of India Ltd., a govt. owned power transmission company is also developing nine high capacity power transmission corridors at an investment of over `580 billion. These corridors would evacuate power from 48 independent power plants with an aggregate capacity of 50 GW.

The main plant equipment supply is expected to increase by 35000 MW.

Focus is towards JV's between domestic players and International companies and much emphasis is also given to public private partnership (PPP). Private sector has also played a significant role in incrementing the installed capacities- hence business opportunities available in government as well as private sector.
There has been a high private participation in the generation sector after it was de- licensed by the enactment of electricity act, 2003. The current contribution of private sector is around 21% of the total capacity and it is expected to install another 19,797 MW during the 11th Phase.

Over the past few years, the transmission network in India has grown at a rate of 6-7%. The latest estimates from the Central electricity authority shows that the interregional capacity has increased from 14,100 MW to 20, &50 MW; it is expected to increase to 57,00 MW by 2015 and 75,000 MW by 2017. Under the Twelfth plan, the planned investment is 2400 billion- out of which 1400 billion is for central transmission utility and 1000 billion is for state transmission utility.

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PORTS:

Introduction

India has a coastline of 7600 Km that has 13 major ports and 187 non-major ports. Ports play an important role in facilitating India's international trade as well as in generating economic activities in their surroundings. Maritime transport has been playing a crucial role in India's export-import; around 95% of international trade in terms of volume and 70% in terms of value is being moved through the sea.

Updates & Investment Opportunities

During the period 2006-2011, the cargo traffic at ports grew at a CAGR (compound annual growth rate) of 7.98%; non- major ports accounting mostly for this growth. The total traffic at major and non-major ports increased at a CAGR of 5.29% and 13.93% respectively. The growth rate of the non-major ports has been faster than the major ports. It is expected that by 2020, the total traffic share at major and minor ports will be equal.

Of all the coastal states, Gujarat has shown maximum growth; it continues to lead in terms of cargo traffic at ports. Kandla port in Gujarat, one of the major ports handled about 14% of the total traffic, i.e. 81.88mt in 2010-11. Other ports which have shown significant development in 2010-11 were Vishakhapatnam and Chennai with 65mt and 61 mt of traffic respectively. In 2010-11, the highest share in the total traffic at minor ports also goes to Gujarat-handling around 74% of total traffic. The period 2006-11 shows an increase in the cargo handling capacity at major ports at a CAGR of 7.34%. In 2010-11, the cargo handling capacity was 670 mt; this shows an increment over 2009-10, when the capacity was 617 mt. However there has also been an increase in cargo handling capacities at non- major ports; the capacity in 2009-10 was 346mt which rose to 392mt in 2010-11.

The Indian shipping fleet has grown at a CAGR of 8.01% during 2007-2011. In 2010-11, the shipping fleet crossed 10 million gross registered tonnage (GRT) mark. It has 1094 vessels having GRT of 10.75 million. The share of overseas and coastal vessels remained the same as 90% and 10% respectively. The sector has seen steadily increasing private participation, in 2010-11 fiscal; there were 5 PPP (public private partnership) projects that were completed at major

ports involving an investment of Rs 40 billion. Apart from this, as of march 2011, 20 PPP projects of capacity 116 million tones per annum (mtpa) were under implementation, these projects involve an investment of Rs 105 billion.

The future holds many opportunities for port developers, equipment providers, construction contractors etc. According to the maritime agenda 2010-2020, the overall seaborne traffic is expected to be 2.5 billion tones by 2020; hence the ports will continue capacity enhancement projects. Under this agenda, a total of 352 projects have been identified that will be taken up at the major ports; most of these projects include construction and reconstruction of jetties and berths. Moreover, 24 PPP projects having a worth of Rs170 billion are targeted for awarding in 2011-12. As per the research of Indian Infrastructure, 21 green field projects over Rs 530 Billion have been estimated and are under implementation. An investment over Rs 2.77 trillion is proposed for investment in this sector during the next 10 years. The aim of Indian shipping companies is to achieve 43 million GRT by 2020; this will include owned and chartered tonnage, an investment of Rs1200 billion is estimated for it. Shipping Corporation of India (SCI), the largest Indian shipping company aims to achieve 13 million GRT by 2020.

The inland water transport and coastal shipping also have very promising opportunities for the future. As per the current scenario, these areas have almost been untapped so far. There are plans and proposals for setting up jetties to utilize the potential of these areas for setting up ferry service network. As per the maritime agenda, there are 20 projects worth Rs 307 billion to be undertaken in inland water transport segment. The focus has also been on developing and improving ship-building and repair facilities; 13 such projects worth Rs 100 billion are in the pipeline.

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CIVIL AVIATION:

Introduction

India aviation sector has undergone a transformation from being an over regulated sector to an open and liberal sector. Government has been encouraging private investments in aviation infrastructure, such as privatization of Mumbai and Delhi airports. The private partners at the Delhi International airport and Mumbai airport were given the responsibility to develop, manage and operate the airports; while AAI holds 26% of equity, the rest 74% is with the private partners.

AAI- Airports Authority of India is the nodal body for managing Aviation sector in India. There are over 450 airports in India, out of which, 125 are managed by AAI, rest are state owned, defence and privately owned. AAI entered into a Joint Venture with private companies to upgrade Mumbai, Delhi, Hyderabad, Bangalore and Nagpur Airports.

Updates & Investment Opportunities

The passenger traffic has been constantly increasing across all the airports in India, maximum growth being at the metros; it increased at a CAGR of 10.44% in the period 2006-07 to 2010-11. In 2010-11, the passenger traffic touched 143.42 million mark (domestic traffic accounting for 105.52 million and international traffic accounting to 37.9 million). Freight traffic has also shown a rapid growth, it increased at a CAGR of 10.93% during the past five years. The total freight traffic reached 2,348.36 thousand tones in 2010-11, out of this, 1496.16 thousand tones is contributed by international cargo while 852.19 thousand tomes is domestic cargo. The civil aviation market in India has grown at a CAGR (Compound annual growth rate) of 18% and was worth US $ 5.6 billion in 2008. The increasing passenger traffic, rise in no. of airlines and route expansion, has led to development of the airport infrastructure. Many green field airport projects have been initiated; moreover modernization of the existing airports is also one of the key points in the development.

As per the planning commission, the investment required for airports in the last year of the eleventh plan (2011-12) is expected to be Rs 74.34 billion. Out of this the private sector is expected to make a contribution of Rs 46.14 billion and the rest being taken care by the central government (Rs 27.09 billion) and state government (Rs1.1 billion). The union budget for 2011-12 has fixed a plan outlay for the ministry of civil aviation at Rs 90.71 billion.

The traffic at the airports is expected to grow and so is the demand for expansion of existing airports as well as for new airports. As the airports at metros reach saturation, government has started shifting its focus towards tier II and III cities; it aims to develop and modernize such airports to meet the growing

demands. 15 Greenfield airports have been proposed for development accounting for an investment worth Rs 320 billion. Navi Mumbai airport is one of the largest Greenfield airport government have in its list; it will be developed on PPP basis and with the involvement of AAI and CIDCO.

UPCOMING GREEN FIELD PUBLIC PRIVATE PARTICIPATION.

For greenfield airports, FDI upto 74% is permitted through automatic approvals

Airport	Investment (Rs billion)
Navi Mumbai (Maharashtra)	65.00
Greater Noida (Uttar Pradesh)	35.00
Kushinagar (Uttar Pradesh)	5.60
Chakkan (Pune)	75.00
Kannur (Kerela)	10.00
Shimoga, Gulbarga, Bijapur and Hassan (Karnataka)	10.20
Sindhudurg (Maharashtra)	4.92
Durgapur aerotropolis (West Bengal)	120.00
Ludhiana aerotropolis (Punjab)	30.00

In addition to the Greenfield airports, AAI has plans for modernization and expansion of existing airports; about 33 non- metro airports have been modernized as of February 2011. 20 such projects are in the planning stage while 8 have begun implementation.

The cargo area still remains untapped; the government has realized the potential of this area and plan to develop new cargo airports and expand the cargo handling capacities at the existing airports. A special consideration is needed for swift handling of the cargo in order to decrease the dwell time from current level to 24 hours, for achieving such levels there is a requirement for infrastructure related to cargo handling like Cargo terminals, automatic storage and retrieval systems, cold storage, satellite freight cities with multi modal transport, computerization and automation, mechanized transportation of cargo etc. MIHAN: A multimodal international hub airport at Nagpur is under development. The project is undertaken by MADC (Maharashtra Airport Development Company Limited), constituted by the government of Maharashtra. The MIHAN project includes development of existing domestic airport as an international airport and a cargo hub airport along with special economic zone. It has a project area of around 4354 Hectares, while the projected traffic is expected to be 14 million passengers annually & 8, 70,000 tonnes of cargo per annum, by 2030 involving a total investment of approx. $ 20 billion. For the twelfth plan, the expected investment is Rs. 662.77 billion, out of this the share of private sector is likely to be at least Rs 430 billion.

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OIL & GAS

Introduction

Oil & Gas provide 45% of India's primary energy requirements; Crude oil demand is currently about 146 MMT while the domestic production of crude is only 34 MMT and Natural gas demand is currently about 179 MMSCMD while the domestic supply is only 80 MMSCMD

Oil and Natural Gas Commission (ONGC) and Oil India Limited (OIL), both public sector companies, are the largest with about 82% share of the total domestic oil and gas production, The Exploration and Production (E&P) sector is witnessing increasing private sector participation, both domestic and foreign

Updates and Investment Opportunities

There has been a steady growth in this sector; the sector continues to witness higher growth, factors such as empowerment of the petroleum and natural gas board, the expansion of the pipeline infrastructure added to the growth. There has been increased domestic production; moreover the private participation has also shown increased participation in this sector. In 2010, the crude oil reserves accounted for 9 billion barrels (bbl) which shows an increase from the prior year, that is 5.8 bbl in 2009. Gas reserves have also shown an increase from 1.1 trillion cubic metres (tcm) in 2009 to 1.5 tcm in 2010.

The pipeline network has also expanded; the crude pipeline network has expanded from 7170 Km in 2009 to 7,760 Km in 2010- a growth of 8.22%; whereas the gas pipeline network grew from 10,900 Km in 2009-10 to 11,932 Km in 2010-11 showing an increase of 9.47%. The pipeline network is expected to expand more as several pipelines have been planned in the coming years.

Huge investments are needed to bridge the huge gap between the supply and demand in this sector and this can be achieved by undertaking more oil & gas explorations. The investments for the twelfth period are estimated to be very high, around Rs 2.6 trillion are estimated for Oil & gas pipelines.

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KRS Marketing Partnership Proposal

Marketing Requirements:

Handling business opportunities in India require various steps and Marketing Partnership will help you to understand the practice and management to work in India. Considering the promotion before official participation in business, few steps like promotion, introducing own product range to manage the requirement development accept our standard products or services, advance preparation of participation in Indian Opportunities, management of local vendor team, if required for joint participation, handling tenders, offers, negotiations, contract management support etc., the list is ongoing and KRS Infra Ventures Pvt. Limited ensure that our experience being in this trade from last two decades offer you wider experience base in INDIA.

Marketing Proposal:

The KRS Group herewith introduce KRS Infra Ventures Pvt. Limited (Earlier known as a KRS Overseas Pvt. Limited) herewith offers the marketing partnership to your organization to promote you and yours associates interest in Indian Infrastructure Sector with following ways:

1. Informing Business Opportunities in India for business scope of your organization.
2. Promoting your organization with introducing and presenting details to various clients in Government and Private Sector and follow-up for acquisition formalities (tendering process, finalization of business, all assistance during implementation & after sales etc.)
3. Informing the current scenario of market in view of Government Policies, Procurements plans etc.
4. Advising the strategies required during promotion for successful business opportunities

The partnership terms will require discussions to finalize, which will be second step after receiving your principal approval and suggest you to work on following options for understanding:

1. Marketing Partnership Joint Venture – which means “KRS Infra Ventures” will offer all Marketing support in India and your organization handle the technical & commercial need of the projects targeted and rest terms conditions of arrangement will decided after in principal approval of partnership.
2. Exclusive Agent in INDIA- KRS will be offered exclusive Agency Agreement for 3 years minimum to develop and managing business opportunities for your organization and terms & conditions of this agreement will be discuss after principal approval of working together.