THINK INDIA JOURNAL

ISSN: 0971-1260
Vol-15-Issue-04-October-December-2012

Ppp In Indian Railways –A Viable Option For Infrastructure Financing

R. Sethu Ravi[1] , Dr.G S Gireesh Kumar[2]
[1]Associate Professor, Government College, Thrissur, Kerala
Government College, Thrissur, Kerala
[2]Associate Professor, Dept. of Commerce,
Nirmala College, Muvattupuzha, Kerala

ABSTRACT

To maintain the impetus, the measures for monitoring Rolling Stock and track health and reliability, necessarily have to be technology driven. In the present economic scenario, stability and consolidation are the key drivers to long term sustained growth of the huge transportation provider, which is the Indian Railways. Technology will be a major factor in ensuring this, and significant inputs in Rolling Stock, Track, Infrastructure, Services, Safety and Security will have to be made over the next few years to maintain and expand market predominance. Only through PPP it can be achieved. . Moreover, Indian Railways have to go for PPP to sustain its turnaround strategies adopted during the period 2004-08. IR should concentrate only in core activities of operation and maintenance of rail transport, rolling stock and freight movement. The non-core activities should be allowed for PPP. PPP will be successful if the private players are guaranteed with a minimum return against changes in political climate.

1. INTRODUCTION

Background

The sudden growth of the Indian economy has put tremendous pressure on the transport sector of the country which was facing severe bottlenecks in connectivity, availability and capacity expansion. Rapid growth of urban population and high per capita income generate huge transportation demand. Transport demand exceeds the limited supply of transport infrastructure and services. Moreover, the public ownership and operation of most public transport services has greatly reduced productivity. In order to keep pace with the boom in economy, Indian Railways (IR) has to double its transportation capacity, increase its volume by constantly reducing its unit costs and provide world class service to its customers.

Importance of the Study

In today's globalised world, quality of service and capacity of infrastructure determines whether we should exist or extinct. While Indian Railways are growing up year after year, it is facing the problem of congestion and saturation of network, especially in high density routes. Capacity constraint demands expansion of existing rail network. Modernisation and capacity generation require mobilization of huge funds. In order to complete almost 240 sanctioned projects, more than Rs. 47000 crores are required. Moreover, extensive competition from road and aviation sectors forced Indian Railways to improve their efficiency and infrastructure. Recognizing the need for capital, better managerial implementation and execution in infrastructure building, Indian Railways have taken measures to encourage PPP.

ISSN: 0971-1260
Vol-15-Issue-04-October-December-2012

In recent years, there has been a growth in all sectoral indices of Indian Railways operations, principally driven by market responsive policies. This remarkable growth has been achieved with practically no increase in wagon holding and only marginal increases in holding of locomotives and coaches. What enabled Indian Railways to make this quantum leap without making proportionate expenditure in rolling stock acquisition were improved design, maintenance and management of its fleets of locomotive, wagons and coaches.

The main strategy of Indian Railways was to run heavier and longer trains with faster turnaround. Strategic initiatives like use of higher axle load resulted in incremental loading of about 60 to 70 MT. These measures in turn imposed great challenge in maintenance of rolling stock because the objective of enhanced availability, operational flexibility, higher throughput were to be met without compromising on safety of trains. Culmination of these efforts resulted in reduction of unit cost of train operation. To maintain the impetus, the measures for monitoring Rolling Stock and track health and reliability, necessarily have to be technology driven.

In the present economic scenario, stability and consolidation are the key drivers to long term sustained growth of the huge transportation provider, which is the Indian Railways. Technology will be a major factor in ensuring this, and significant inputs in Rolling Stock, Track, Infrastructure, Services, Safety and Security will have to be made over the next few years to maintain and expand market predominance. Only through PPP it can be achieved.

2. OBJECTIVES OF THE STUDY

In this paper, the researcher attempts to make an insight into:

- The projects undertaken by Indian Railways through PPP.
- Its viability for making infrastructure investment in non-core activities.
- Functioning of the PPP Cell under Railway Board.
- Challenges and Opportunities.

INDIAN RAILWAY - A PROFILE

Indian Railways (IR) has one of the largest and busiest rail networks in the world, transporting over 18 million passengers and more than 2 million tonnes of freight everyday. With 1.4 million people, it is the world's largest commercial or utility employer. Indian Railway (IR) has 16 zones divided into 67 divisions and a six member Railway Board administers the functions of the organisation. It is a state owned department under the Ministry of Railways and functions under the guidance of the Railway Minister who is assisted by two Ministers of State. IR spread over 64015 route kms covering 7400 stations and is operated by world’s largest workforce of 13.8 lakh employees. It operates under multi gauge system- narrow gauge, metre gauge and broad gauges and operates nearly 17000 trains a day of which 11000 are passenger trains. The non-core revenues constitute 3 per cent of Railways’ total projected revenue of Rs 90,626 crore for 2009-10. Over the last few years, Indian Railway has managed to achieve a dramatic reinvention of its business and is presently witnessing one of the most impressive and unprecedented expansions in its history. Today IR acts as the backbone of India’s transport infrastructure and as such it contributes significantly to macro-economic growth and global competitiveness. In 2001 the Indian Railways was marching towards bankruptcy. But now it has morphed itself from a chronic money drain into what may possibly be the most profitable railway network in the world.

PRESENT SCENARIO OF INDIAN RAILWAYS

ISSN: 0971-1260
Vol-15-Issue-04-October-December-2012

The Railways have added only 180 km a year on an average since independence, when the rail network was 53,596 km. IR now has a backlog of 11,985-km projects stuck for want of funds, which can be materialized only through PPP. IR has framed a vision 2015 relating to its infrastructure development.

To provide momentum to infrastructure construction in the country, the government has accelerated the formulation of policy framework for Public Private Partnerships (PPPs), effected regulatory changes, established institutional procedures and drawn the road map for implementing the PPP projects.

MEANING OF PPP

Public- Private Partnership (PPP) means an innovative way of delivering modern, high quality public services, with improvement in infrastructure, based on a contract or concession agreement, between government or public entity and a private sector forms a Special Purpose Vehicle (SPV) to build and maintain the asset. SPV is a consortium made up of a building contractor, a maintenance company and a bank lender. It is the SPV that signs the agreement with the government and with subcontractors to build the facility and then maintain it. The SPVs have to share the financial, technical and commercial risks associated with construction and operation and the state government has to share the political risk associated with land acquisition.

PPP is not invited in operation of trains, as the Railway Act stipulates that no private participation can be invited on operation of trains.

When PPP is opted

- To keep pace with the growing economy.
- To complete a project of national importance within the target time avoiding cost overrun.
- When the govt. feels that there is lack of funds to improve infra-structure requirement.
- To improve the quality of service to customers and operating efficiency.
- To meet the capacity constraints.
- To share the risk associated with the projects.
- To attract techno- managerial efficiencies associated with private investors.

Prioritized projects under PPP

1. Dedicated Freight Corridors- Initially Eastern and Western corridors of 2700 kms.
2. World class railway stations- so far 22 stations identified. The concessionaire would construct and maintain and share the revenue earned and hand over the same after the concession period.
3. SPVs for manufacturing of locos, coaches and other railway equipments.
4. Construction of budget hotels, tourism and catering under BOT model.
5. Operation of container trains- 14 firms including CONCOR.
6. Other opportunities- Rail side ware houses, private sidings, super specialty hospitals, parcel services etc.

In India, Noida Toll Bridge was the first successful PPP project in transport sector.

The effective functioning and subsequent success of Public Private Partnerships (PPPs) depends on the following factors:-

ISSN: 0971-1260
Vol-15-Issue-04-October-December-2012

- An objective evaluation of the project in hand and a vigilant understanding of factors such as the importance of the project, economy of the project, social and environmental conditions, political and public opinion and private sector interest in terms of investment attractiveness.
- Active participation and support by stakeholders which in turn requires a superior level of awareness and a diligent effort towards a consensus.

PPP Financing Models

Indian Railways (IR) have drawn up four distinct financing models under Railway Infrastructure for Industry Initiative(3IIIs)to partner private sector players in its ambitious plan to add 25,000 km to its rail network of 64,000 km by 2020. Under both the models, the Railways would form Special Purpose Vehicles (SPVs) with private players, but will have different revenue-sharing patterns and land acquisition methods.

Cost-sharing & Freight relate Model

The scheme envisages the private player to invest 50% of the total investment and avail discount of @ 10-12% on freight rate for a period of 10 years or till the amount is recouped.

100 % cost- sharing Model

Under this Model, 100% of the project cost is borne by the private player for laying the railway lines and they are allowed to operate it for 25 years. For the first ten year period, 2% of the freight earnings and for the next 15 years, 4% of the freight earnings is to be given to the Railways.

SPV Model

To increase port connectivity, Railways share 26% of the cost and the private partner has to construct the line on land provided by the Railways. Railway guarantees assured supply of rolling stock. Eg: Pipavav Rail Corporation Limited.

Private Railway line Model

The private party will be allowed to build and operate railway line in their own land for 30 years. Up to 15 years 2%, 16to 20 years,3% and 21to 30 years,4% of the freight rate is to be given to the Railways.

Scope of PPP in Indian Railways

The scope of PPP in IR is immense. IR needs more than 80 billion dollars during the Eleventh Five Year Plan.(2007-2012) The Eleventh Plan envisages a total investment of Rs 2,300 billion, of which it is estimated that about 60 per cent will be raised through PPP.

PPP in the Past

In the past, IR concentrated on non- core activities like

ISSN: 0971-1260
Vol-15-Issue-04-October-December-2012

- Catering
- Parcel services- More than 100 parcel vans are already been leased in important Mail and Express trains. Two privately operated parcel trains are already in operation. Handling parcel services by private parties reduced the loss incurred by IR in this area.
- Container services- IR has given license for 14 private sector companies for container operations for their own use. The scheme was opened in 2006. Rs. 540 crore was generated as fees. Later, it may emerge as a competitor to Container Corporation of India(CONCOR)

These efforts are, however, limited in scale and scope.

So far IR has six SPVs for undertaking network expansion projects, of which the first three are operational. They are:

- Pipavav Railway Company Limited (PRCL) on Western railway,
- Hassan Mangalore Railway Development Company on South Western railway,
- Kutch Railway Company on Western Railway.
- Haridaspur Paradip Railway Company Limited on East Coast Railway
- Krishnapatanam Railway company Limited on South Central Railway, and
- Baruch Dahej Railway Company Limited on Western Railway.

The partners in these SPVs include state governments, infrastructure providers such as port trusts, private ports and SEZs, and users such as fertilizer and steel companies.

Present PPP strategies

The present strategies concentrated on areas to improve operating efficiencies and reduction/ control of cost. In the non-core sector, that is in the:

1. **catering services**

    - Budget hotels and food plazas at major stations- The license period for food plaza is nine years with provision of extension for another three years. As on January 2010, 73 food plazas have started functioning. The hotels will be set up in the name of Rail Ratna in five cities, Chandigarh, Sealdah (WB), Madurai (TN), Vijayawada and Secunderabad (AP).
    - IRCTC has awarded licenses for managing 40 base kitchens. These kitchens will strengthen the infrastructure for on-board services.
    - Railway Board has given approval for the setting up of Rail Neer plants at Pallur in Chennai and Ambernath in Mumbai.

2. **High way connectivity and smaller assembly units for processing imported raw materials for export units –** Such parks should be located at strategic locations or near SEZs.
3. **Setting up of SPVs for the manufacture of rolling stock.**

With sustained economic growth and the consequent demand for rail transport, there has been grater demand for additional locos, coaches, and wagons(rolling stock) in addition to the capacity of Integral Coach Factory at Perambur and Rail Coach Factory at Kapurthala. SPVs are formed to augment the existing capacity and setting up a new loco manufacturing unit - one for diesel loco and the other for electric loco through PPP.

4. Privatisation of container business- IR granted license to 15 private players to handle container operations. (Only seven have started operation). Previously, it was the monopoly of Container Corporation of

ISSN: 0971-1260
Vol-15-Issue-04-October-December-2012

India (CONCOR), which is a public undertaking of IR. Now, the private firms compete with CONCOR mostly for exports or imports cargoes and Railways share concentrated in domestic cargo movement. Presently 146 trains of CONCOR and 44 private containers are functional. 60 container depots are also operational including three constructed by private parties.

Out of total freight market, the Railways including CONCOR and private players account for 35% or 794 million tons. There are certain factors which limit the level of competition in container movements. An independent regulator should provide adequate environment promoting private participation.

4. Construction of Dedicated Freight Corridors- Due to over congestion on busy traffic routes and initiatives to increase the speed of freight trains, IR has taken up the task of DFC connectivity, considering the growth in traffic in container, coal, iron and steel on connecting Mumbai- Delhi & Howrah - Delhi routes. Indian Railway has planned to construct DFC covering 2762 route kms on Eastern and Western Corridors. RITES have conducted feasibility studies and undertook Preliminary Engineering cum Traffic Survey (PETS) The project is being implemented through an SPV- Dedicated Freight Corridor Corporation of India Limited (DFCCIL) by a combination of engineering, procurement, construction and PPP modes. Currently IR has 100 per cent ownership in both the eastern and western corridors. Ministry of Railways is in the process of selecting a global consultant to advise on the concession agreement, principles of track access charges and other financing and bidding issues. For the success of this model, a unique combination of risk sharing and incentives must be developed. The SPV could bring in additional ancillary revenues through commercial exploitation of land, as well as construction of freight terminals and logistic parks. The Ministry has planned a few such parks at selected locations along DFC.

5. Commercial development of land and World-class Railway stations- IR has around 43000 hectares of vacant land alongside the track, around the railway stations and in railway colonies. The Rail Land Development Authority (RLDA) was formed in January 2007 to pursue the objective of commercial development. As on February, 2009, three sites have been awarded but the development agreement has not been signed. City railway stations like Delhi and Mumbai need to be modernized to provide world class amenities to large number of passengers. 19 stations have been identified altogether. In the southern region; Chennai, Trivandrum and Bangalore have been selected.

6. Development of rail side warehouses- IR signed an agreement in December, 2003 with the Central Warehousing Corporation to develop 22 rail-side warehouses. As on April1, 2009, 13 warehouses had been constructed. Here, land is provided by Railways at nominal fees. Door-to-door service is promoted by this method. 5 per cent minimum revenue is shared with Railways and the lease period is 30 years.

7. Wagon Investment scheme- It was launched in 2005-06. By providing incentive of 10 per cent rebate on freight charges to private customers, who invest in rakes, the Railway achieved additional rolling stock with minimum capital expenditure. This system guarantees supply of rakes for loading. The scheme is now being replaced by providing high capacity and special purpose wagons.

8. Strengthening of Rail-Port connectivity- Rail Vikas Nigam Limited (RVNL) is authorized to undertake capacity augmentation works and rail-port connectivity projects. It helps to attract diverted cargoes to roads and shipping. SPV named PRCL (Pipavav Rail Corporation Limited) formed with equity participation from Ministry of Railways and Gujarat Pipavav Port Limited (GPPL) for construction, operation and maintenance of surendranagar-Pipavav Broad Gauge line, which has been completed and thrown open for traffic since March 2003.

To make the Vision 2020 fruitful, IR needs Rs.14, 00,000 crores for next 10 years. Indian Railway proposes to meet a major part from extra budgetary sources including PPP and support of State government. Under Vision 2020, it has the ambition to become number one rail network in the world. It is a vehicle of inclusive development, national integration, and a catalyst of creation of large scale business and employment opportunities. India's GDP is expected to exceed USD 2 trillion (Rs.90 lakh crore) by the year 2020 and Indian Railway is aiming to take its gross revenue to around 3 % of it in the next 10 years. With the GDP at

ISSN: 0971-1260
Vol-15-Issue-04-October-December-2012

this level, it has the potential to grow to around Rs.270000 crore revenue from around Rs.90000 crore at present. The ambitious goal of 10 % growth in the next 10 years cannot be achieved without developing a sharper commercial focus amending the existing policies and creating adequate capacity while expanding and modernizing the rail network.

Future Plans under PPP

- DFC along the Dehi-Mumbai and Delhi-Howrah corridors will ensure multi-modal connectivity and enhance railway freight earnings.
- Other major port connectivity projects.
- Plans to have feasibility study on High Speed Passenger Corridors between major cities.
- Marketing, Operation and Maintenance of luxury tourist trains.
- Modified stainless steel body coaches and improved seating arrangements
- Audio-Visual Communication system in all AC coaches
- More number of rolling stock factories to produce more locos and coaches to commensurate with the increase in demand.

PPP Models in Rail infrastructure

- Build-Operate and Transfer-(BOT) Ownership of assets with private developers for a concession of 12 years, during which private parties get annuity twice a year. After the period, assets are transferred to concerned zonal railway.
- Build Own and Operate (BOO). It is usually for construction of new lines and gauge conversion projects. Operation is undertaken by IR.

Participation of State government in PPP

The state government has greater opportunities under PPP. They are:

- Rail connectivity to SEZ and minor ports.
- Logistic parks.
- Financing of remote and rural area projects.
- Warehousing facilities.
- Rail Over Bridges and under Bridges(ROBs and RUBs)

The Konkan Railway Corporation is formed with state participation in 1998. Suburban projects in Mumbai, Chennai and Kolkata are also formed with state intervention.

Participation of states in PPP projects

Gujarat	Kutch Railway Company
Maharashtra	Mumbai Rail Vikas Corporation
Karnataka	(K-RIDE) Karnataka Rail Infrastructure development Ltd.
	(HMRDCo)Hassan-Mangalore Rail development Company

IR signs an MoU with the Government of Kerala

The Ministry of Railways and Department of Industries and Commerce, Government of Kerala has signed a

ISSN: 0971-1260
Vol-15-Issue-04-October-December-2012

Memorandum of Understanding (MoU) to form a joint venture (JV) company for fabrication of bogie frames for passenger coaches and side/end walls for the wagons of the Indian Railways. The new JV will utilise the existing land and other assets of Steel Fabrication Unit (SFU) and Autocast located at Alappuzha District,Kerala.

Indian Railway shall hold 51 per cent equity in the JV and the remaining 49 per cent will be held by the Kerala Government. A joint working group (JWG) will be constituted in the next six months to prepare business plans and work out the modalities for the formation of the JV.

COST-SHARING RAIL PROJECTS

Andhra Pradesh	1
Karnataka	3
Maharashtra	3
Tamil Nadu	3
West Bengal	1
Jharkhand	3
Haryana	1

Challenges and threats in PPP projects in Indian Railway

The public-private partnership model for investment, though a phenomenal success in case of highway development projects, is failing to make any significant impact in the railway sector. In the recent past, the Ministry of Railways had initiated several concrete measures to explore the PPP route for improving its flagging infrastructure across the country. The private sector's response to these initiatives, however, has been somewhat muted.

1. IR has no clear cut plan and technical and managerial skills in implementing PPP. So discipline in its enforceability is not ensured.
2. In India politics dominate the decisions on economic policies. So PPP is invited in areas which require immediate attention and is capable of reducing costs and improving the quality of services.
3. In case right policies are not framed, private monopolies will emerge in place of state monopolies.
4. A change in the mindset of the people is highly required.
5. IR has formed a PPP cell at the Board level to guide the initiatives of IR on PPP. It is not functioning properly and concentrates only on transactions and not on policy decisions and strategies. It should be strengthened by including officers from all departments and share the experiences of other sectors and countries. It can also be strengthened by providing regular training to officers and sharing of experiences within IR by providing strategy level guidance and assistance in big PPP projects.
6. There is no comprehensive policy document on PPP. As PPP is a reality in IR, there should be a comprehensive policy document, which should contain the following:

- Background for PPP in IR
- Principles for PPP
- Process for PPP
- Approval of model document.

There are certain elementary hindrances common to all fresh ventures like improper communication which can increase expenses astronomically, lack of transparency, sub-standard contracts, etc which need to be

ISSN: 0971-1260
Vol-15-Issue-04-October-December-2012

successfully combated. Also a situation of misunderstanding may arise where the Government may expect its private sector partners to bear the entire risk-load. To avoid the creation of such a circumstance, the partners should ensure unmistakable interaction with the Government. All the required benchmarks and expectations should be spelt out in clear terms. Latitude for changes should be clearly set out to ensure maximum transparency.

3. CONCLUSION

To sustain the economy growth of 8% in our GDP and to meet the competition from roadways, pipelines, shipping and airways, the need for railway infrastructure development is highly essential. Moreover, Indian Railways have to go for PPP to sustain its turnaround strategies adopted during the period 2004-08. IR should concentrate only in core activities of operation and maintenance of rail transport, rolling stock and freight movement. The non-core activities should be allowed for PPP. PPP will be successful if the private players are guaranteed with a minimum return against changes in political climate. Attractive incentives should be given to invest in public utilities.

The year 2008-09 witnessed new developments aimed at modernizing rail infrastructure, improving efficiency and safety and enhancing comforts of passengers. Though measures are taken to go for PPP, it was not found so effective because of the following:

- No Comprehensive policy document for PPP, and
- PPP cell is not functioning properly.
- The returns to private parties are also not attractive.

The international experience points out that road projects gain from the PPP model because of toll. The model won't work in the railway sector. For laying new lines, PPP is not suitable and for the construction of production units of rolling stock and for non-core activities it can be invited. In railways, projects require very large investments and have long gestation period. The return on investment is received after a considerable period of time. The private sector wants quick returns on its investments. Unless extra incentives are provided, it would be difficult for railways to attract the private sector. Private sector participation is not a gift without a curse. It comes out with its own set of problems. Inviting private participation in case of a government monopoly has not always led to private sector efficiencies and modernisation. On the other hand, it has led to monopolization in the hands of the private sector.
The success of PPP projects depends upon the profitability of the project, framing of policy documents and adequate incentives to private partner . The Public Private Partnership (PPP) model may emerge as the most sought after option for Indian Railways and similar infrastructure driven state owned enterprises to meet their growth challenges.

4. REFERENCES

[1] Publication by the Ministry of Railways on 7oct 2006- Building railway infrastructure- Challenges and opportunities.
[2] George Tharakan& Nupur Gupta- A Report on World Bank support of Railway concessioning and bidding, New Delhi-2006
[3] International Conference of Public Partnership Convention on India Rail-15-16June, 2006.
[4] Public-Private Partnership in Indian Railways-Karan Kumar, 2008.
[5] Planning commission Indian railway and world bank- Joint workshop on generating and implementing visionary railway strategies- A vision for financing PPP in railways – New Delhi

ISSN: 0971-1260
Vol-15-Issue-04-October-December-2012

march 26, 2009
[6] White Paper on Indian Railways (2009) Published by Ministry of Railways, New Delhi.
[7] Indian Railways –Vision 2020, Published by Ministry of Railways, Government of India.
[8] www.indianrailways.gov.in accessed on 22-9-2010
[9] Guidelines-financial support to PPP in infrastructure.gov.in.
[10] KPMG Research group Feb, 2007, International Railway Conference-a background note KPMG.
[11] Raghuram. G. III M Ahmedabad- Working paper on Turnaround of IR-A critical appraisal of strategies and processes, 2007.