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Accelerated Construction of New Lines/ Doubling Projects

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Introduction :

Indian Railways are operating in the core sector of the economy. To strengthen, modernise and expand the IR network, the investment requirement is huge. Ministry of Railways wishes to attract private capital for accelerated construction of fixed rail infrastructure. For this purpose, it has formulated PPP investment models for its existing shelf of projects and also for new projects.

The railway map of India is a network of veins that pump life-giving blood into the heart of India's economy. Indian Railways is a unique integrator of modern India, with a major role in its socio-economic development. It is an organization that touches the hearts and existence of all Indians, even Mahatma Gandhi. Bapu decided to undertake a voyage of discovery of India before launching himself into the national freedom movement. And he conducted this Bharat Darshan on trains, always travelling in third class.

Unfortunately, Railway facilities have not improved very substantially over the past few decades. A fundamental reason for this is the chronic underinvestment in Railways, which has led to congestion and over-utilization. As a consequence, capacity augmentation suffers, safety is challenged and the quality of service delivery declines, leading to poor morale, reduced efficiency, sub-optimal freight and passenger traffic, and fewer financial resources. This again feeds the vicious cycle of under-investment.

Salient Feature of Indian Railways :

Fourth largest rail freight carrier in the world.
Indian Railways envisages an investment of INR 8.5 lakh crore in the next five years.
1.3 Million strong workforce.
World's largest passenger carrier.

With the objective of extending Railway line connectivity across the

country, Railways have taken up 154 new line projects for construction of 17129 Km of New Lines at a total cost of Rs.163448 crore for laying additional New line/extend the length of railway line connectivity in various States. As on 1st April 2014, 3229 Km new lines have been constructed and total expenditure against these 154 projects is Rs. 42330 crore. For the current financial year 2014-15, a budgetary outlay of Rs.7624 Crore has been provided for New Line projects & for 2015-16, an outlay of Rs. 8850 Crore has been proposed in the Railway Budget.

Allocation of funds to New Line Projects is made on year to year basis, depending upon overall availability of funds, relative priority, status of land acquisition & other clearances, stages of projects etc. Because of large shelf of ongoing projects, limited availability of funds for New Line projects & factors such as land acquisition/forest clearances/law & order beyond the control of Railways no time lines can be fixed for completion of these projects.

Looking to push Indian Railways as an engine of growth for the economy, Ministry of Railways has expedited implementation of some key projects announced during this year's Rail Budget.

"Ministry of Railways included 77 doubling, 4 new line and 1 gauge conversion projects in Railway Budget 2015-16. The projects were included primarily with a view point to create additional carrying capacity. Fast tracking of these projects was need of the hour so as to reap benefits of the projects as soon as possible," the ministry said in a press release.

The release highlighted a slew of measures taken under the direction of Honble MR for expeditious execution of these projects.

These are :

1) So far the practice was to include a project in Railway Budget and send for 'In Principle Approval' (IPA) of NITI Aayog, hold meetings of Extended Board of Railways and finally seek approval of Cabinet (CCEA). Once Cabinet approval is available, Railways used to go for Final Location Survey and subsequent preparation of detailed estimate. An expenditure can be incurred only after detailed estimate or part thereof has been sanctioned. This process used to take 2-3 years, which means tenders can be called roughly after 2 years of inclusion in Railway Budget.

To reduce this time gap of two years, Ministry Railways asked zonal railways to carry out Final Location Survey immediately after inclusion of the work in Railway Budget. After Final Location Survey, the zonal railways were asked to send Detailed Project Report (DPR) to Railway Board with a reasonably firm cost. Out of 77 doubling projects sanctioned in this year, detailed project reports of 73 doubling projects have been prepared and received.

2) Examination and scrutiny of DPR in Railway Ministry has been fast tracked by forming committee of concerned officers for this purpose instead of examination from table to table by Individual officer. Request for 'In Principle Approval' (IPA) of NITI Aayog is being sent after DPR is examined in Railway Board. As many as 15 IPA have been received from NITI Aayog. Out of these 15 IPAs, 4 projects which cost more than Rs 1000 crore are being sent to CCEA for approval.

3) Zonal Railways have been advised to call tenders immediately after IPA is received. However, a financial commitment can be made only after all requisite approvals are in place.

4) To reduce delays further, Railways are now being advised to invite tenders immediately after a DPR is sent to NITI Aayog for IPA without waiting for approval. This has effectively reduced tender

calling period from 2 years after inclusion of a project in Pink Book to 6-9 months. In addition to this, zonal railways have been given more powers to sanction detailed estimates so as to reduce delays in such sanctions.

5) Power for accepting all tenders have now been delegated to zonal railways which results into overcoming delays on this account.

Indian Railways will commission multiple projects running into 2,500 km to decongest its choked network, a major focus area of this year's rail budget, to free up line capacities for faster movement of trains "The projects include commissioning of new lines, gauge conversion and doubling of existing tracks in certain busy stretches.

Rail minister Suresh Prabhu had earmarked 77 projects involving doubling, new line and gauge conversion to be undertaken in 24 over-saturated corridors in the rail budget for 2015-16.

77 identified projects would require Rs 90,000 crore of investments and are being implemented in some of the most saturated corridors including Delhi-Mumbai, Delhi-Howrah, Delhi-Chennai, Howrah-Chennai and Ahmedabad-Rajkot routes "Twenty-eight projects have got in-principle approval from the Niti Aayog out of the 77 projects, and tenders have been invited for their works. The work on these projects is expected to commence in the next few months," Ministry will soon seek a Cabinet nod for four new lines.

Ministry would shortly receive the first tranche of around Rs 2,000 crore of the Life Insurance Corporation of India funding of Rs 1.5 lakh crore for five years tied up earlier for investment in capacity augmentation projects.

Indian Railways is targeting capital expenditure of Rs 1 lakh crore in the current financial year, compared to last year's plan size of Rs 65,000 crore. Of the current year's targeted investment, Rs 43,518 crore would be spent on civil works, including new lines, gauge conversion and doubling.

Continuing inadequate rail freight capacity is forcing freight to move by uneconomic alternative modes of transport which imposes high avoidable cost on the Indian economy and increased environmental impact as alternative modes are less energy efficient than rail. Over the last decade IR has initiated measures to improve the operational and commercial performance of its rail freight operations.

Indian Railways envisages an investment of INR 8.5 lakh crore in the next five years.

Last-mile connectivity to boost business activity in and around ports and mines has been proposed through the formation of special purpose vehicle (SPV) companies under the PPP model.

The sector runs 21,598 trains, carrying over 23 Million passengers daily and connecting more than 7,112 stations. Indian Railways runs more than 8,636 freight trains, carrying about 3 Million Tonnes of freight every day.

The long-term strategic plan of the Ministry of Railways is to construct six high-capacity, high-speed dedicated freight corridors along the Golden Quadrilateral and its diagonals.

The sector has taken up port connectivity on priority, through the PPP mode of funding in tandem with the Sagar Mala Project of Port Development. Railways will facilitate connectivity to new and upcoming ports through private participation. So far, in principle, approval has been granted for building rail connectivity to the ports of Jaigarh, Dighi, Rewas, Hazira, Tuna, Dholera, Astranga, Chara and Nargol under the Participative Model Policy of the Indian Railways, amounting to INR 40 Billion.

The 2014–15 Union Budget envisages a Diamond Quadrilateral network of high-speed rail, connecting major metros and growth centres of the country.

During the period of 2012-17, Mass Rapid Transit Systems (MRTS) projects are being planned in Ahmedabad, Bengaluru, Hyderabad, Chandigarh, Chennai, Delhi, Jaipur, Kochi, Kolkata, Mumbai, Patna, Pune, Lucknow and Surat through the PPP model.

The share of private investment in MRTS projects is expected to increase from 13% during 2007-12 to 42% during 2012-17.

Rail tourism is on the anvil, with emphasis on the introduction of eco-tourism and education tourism in the North-eastern states, the identification of special pilgrim circuits such as the Devi Circuit, the Jyotirling Circuit, the Jain Circuit, the Christian Circuit, the Sufi Circuit, the Sikh Circuit, the Buddhist Circuit and the Temple Circuit. Specially packaged trains for these circuits have been proposed and private participation will be encouraged.

PPP involves a contract between a public sector authority and a private party, in which the private party provides a public service or project and assumes substantial financial, technical and operational risk in the project. In some types of PPP, the cost of using the service is borne exclusively by the users of the service and not by the taxpayer.[1] In other types (notably the private finance initiative), capital investment is made by the private sector on the basis of a contract with government to provide agreed services and the cost of providing the service is borne wholly or in part by the government. Government contributions to a PPP may also be in kind (notably the transfer of existing assets).

There are usually two fundamental drivers for PPPs.

Firstly, PPPs are claimed to enable the public sector to harness the expertise and efficiencies that the private sector can bring to the delivery of certain facilities and services traditionally procured and delivered by the public sector.

Secondly, a PPP is structured so that the public sector body seeking to make a capital investment does not incur any borrowing. Rather, the PPP borrowing is incurred by the private sector vehicle implementing the project.

PROVISIONS IN THE RAIL BUDGET 2015-16:

The Ministry of Railways in November, 2014 issued Sectoral Guidelines for permitting domestic/foreign direct investment (FDI) in construction, operation and maintenance in the following identified areas:-

100% Foreign Direct Investment (FDI) in the railway infrastructure segment has been allowed recently which has opened up opportunities for participation in infrastructure projects such as high-speed railways, railway lines to and from coal mines and ports, projects relating to electrification, high-speed tracks and suburban corridors

100% FDI under automatic route is permitted for the following :-

- Construction, operation and maintenance of suburban corridor projects through PPP.
- High speed train projects.
- Dedicated freight lines.
- Rolling stock including train sets and locomotive/coaches manufacturing and maintenance facilities.
- Railway electrification.
- Signalling systems.
- Freight terminals.
- Passenger terminals.
- Infrastructure in industrial parks pertaining to railway line/siding including electrified railway lines and connectivities to main railway line.
- Mass Rapid Transport Systems.

The guidelines will encourage foreign investors for making investment under 'Make in India' programme.

- Life Insurance Cooperation will make available to the Ministry of Railways/its entities a Financial Assistance with a limit of USD 23.76 billion over the next five years for implementing railway projects.

- With the objective of cutting energy costs, the railways has signed a bilateral power procurement agreement with the Damodar Valley Corporation (DVC). Under the agreement, railways will buy 50 MW of power from DVC at Auraiya Grid Sub-station facilitated by Railways Energy Management Co. Ltd, a joint venture of the Indian Railways and RITES, a public sector unit of the Ministry of Railways.
- The Ministry of Railways has sanctioned implementation of Eastern Dedicated Freight Corridor (EDFC) and Western Dedicated Freight Corridor (WDFC) with freight train speeds of maximum 100 Kmph.
- "Foreign Rail Technology Cooperation scheme" to be launched.
- In Dedicated Freight Corridor 750 kms of civil contracts and 1300 kms of system contracts are targeted in 2015-16; 6608 kms of track to be electrified.
- Railways to go through transformation in five years; to increase track capacity by 10% to 1.38 lakh kms.

Agencies PSUs :

- Indian Railways
- Container Corporation of India Ltd.
- Dedicated Freight Corridor Corporation of India
- Rail Vikas Nigam Ltd.
- Railtel Corporation of India Ltd.
- Rail India Technical and Economics Services Ltd.
- IRCON International Ltd.
- Rail Land Development Authority

- Mumbai Railway Vikas Corporation Ltd.

As a result of heavy passenger use and the rapid growth of IR's freight traffic (by almost 50 percent over the last five years), capacity utilization on IR's most heavily used routes exceeds 100 percent of nominal capacity by a significant margin. The four routes that form a Golden Quadrilateral connecting Delhi, Mumbai, Chennai and Kolkata account for 16 percent of the railway network's route length, but they carry more than 55% of India's total rail freight. With freight traffic projected to grow at more than 7 percent annually, IR urgently needs to add capacity to these routes.

Government has approved an IR proposal to establish dedicated freight only lines, paralleling the existing Golden Quadrilateral routes to ease the congestion choking the railway system and constraining economic growth.

As these routes serve the core sectors of the Indian economy growing power requirement, growth in infrastructure and international trade have led to the conception of the Dedicated Freight Corridors (DFC) along the Eastern and Western Corridors.

The relief of the passenger lines will allow passenger trains to run faster and more reliably and the supply of both passenger and freight trains can be expanded to meet

unsatisfied demand and make room for growth with this, the total corridor capacity will be more than doubled.

Typically, a private sector consortium forms a special company called a "special purpose vehicle" (SPV) to develop, build, maintain and operate the asset for the contracted period. In cases where the government has invested in the project, it is typically (but not always) allotted an equity share in the SPV. The consortium is usually made up of a building contractor, a maintenance company and bank lender(s). It is the SPV that signs the contract with the government and with subcontractors to build the facility and then maintain it. In the infrastructure sector, complex arrangements and contracts that guarantee and secure the cash flows make PPP projects prime candidates for project financing. A typical PPP example would be a hospital building financed and constructed by a private developer and then leased to the hospital authority. The private developer then acts as landlord, providing housekeeping and other non-medical services while the hospital itself provides medical services.

Minister of Railways Suresh Prabhu on 14 July 2015 inaugurated the broad-gauge railway-line between **Gandhidham and Tuna-Tekra Port** in Gujarat by flagging off a goods train.

The rail line is India's first railway-line built with private sector participation under **Non-Government Railway (NGR) Policy 2012** of Indian Railways.

The rail line has been built at a cost of approx 185 crore rupees for **M/s Kandla Port Trust (KPT)** to bring about better and faster rail connectivity to Port of Tuna & Tekra.

The rail-line between Gandhidham, a town in Kutch district of Gujarat, and Tuna-Tekra Port, a port 20-km west of Kandla in Gulf of Kutch, was funded by M/s Kandla Port Trust (KPT) and Western Railway Zone of Indian Railways coordinated and pioneered it.

The project, approved by the Railway Board in October 2013, was completed in a record time of 12 months in May 2015 and was executed in two parts.

The first part, viz., **11-km Gandhidham- Tuna Rail line** was executed by Western Railway Zone as deposit work while the second part, viz., **6-km Tuna-Tekra line** was executed by M/s Kandla Port Trust.

Cash-strapped Indian Railways is seeking private participation in rail connectivity and accelerated construction of fixed rail infrastructure.

For this, the national transporter, which has been saddled with losses of around Rs 14000 crore, has come out with a comprehensive draft policy containing six models for different specific categoris of projects

These are generic models. The specific issues will be decided on a case to case basis. Depending on the model of private investment, Ministry of Railways will either grant direct permission or go in for competitive bidding for award of concession.

Who Can Participate in PPP.

State Governments.
Local bodies
Beneficiary industries
Ports
Large import and export companies
Co-operative Societies and other body corporates
Infrastructure and Logistics providers. PIO/Overseas Corporate Bodies (OCB) (After FIPB clearance)
Foreign Direct Investor (After FIPB clearance)
Other investors.

Advantages to Investors

Opens opportunity for returns from investment in rail projects.
Ensure timely availability of rail infrastructure to the beneficiaries viz. Port, Industry and States.

Advantages to the State Governments

Ensure timely development of rail infrastructure critical to the economic development of the State.
Reduces congestion on the roads.
Investment in rail is cost effective compared to road.
It is environment-friendly.

Objectives

Supplementing Government investment in rail infrastructure projects by private capital flows.
Involving the States in creation/development of rail infrastructure for the common public good.
Timely creation of rail transport capacity to avoid supply-demand mismatch. Ensuring availability of transport needs consistent with the expected GDP growth of 9%.

Models and policy framework

1.0 Non-Government Railway Model-Salient Features:

Applicability

This model shall be applicable to first and last mile connectivity projects at either end of the rail transportation chain providing connectivity to ports, mines, logistics parks or large-sized cluster of industries, which are handling goods traffic for multiple consignors or consignees. It is applicable for transportation of any kind of goods traffic and does not preclude running of passenger trains. These railways will be operated on "common carrier" principle for public transportation of goods and passenger. The railway connectivity will be developed on private land and it will be a Non- Government Railway project.

Legal/Policy Framework

It will be a Non- Government Railway under Railway's Act 1989. The Railway will become member of Indian Railway Conference Association. Under extant governmental policy, the train operation will be undertaken by the Zonal Railway serving the Non- Government Railway in a seamless manner. Proposal for such a Railway system will emanate from the beneficiaries of the first/last mile connectivity.

Project Development and Project Structuring

 Project development and project structuring will be done by Project Developer to establish project cost, land requirement and other project component requirements. The project report will be examined by IR from the stand point of its meeting of operational requirement for the traffic being projected for the railway system.

Project Developer, Funding and Land acquisition

 It envisages financial participation of the project proponent in the development and creation of rail infrastructure for providing first/last mile connectivity under an agreement with MoR either on its own or as a joint venture with infrastructure financing and development institutions.
 Funds will be fully mobilised by the project proponent etc. without any participation by the Railways.
 Land for the line will be acquired by the Project Developer to provide connectivity with the main line railway system. Railway land for providing connectivity with main line will be made available on lease/license as per extant policy.

Construction

 Project construction will be done by Private Railway either through its own private agency or through Railways as special deposit work. Certification will be done as per rules/policy.

Maintenance

 Maintenance of the project line and project assets will be done by the Non-Government Railway as per IR standards under supervision/ certification by the Zonal Railways on

payment of supervision charges. Alternatively, Non-Government Railway may choose to entrust the maintenance to IR by entering into an O& M agreement.

 Renewal of project asset, technological up-gradation and capacity addition from time to time shall be undertaken by the project developer at its own cost as per IR standards.

Operations and Revenue Collection

 There will be seamless operation between IR network and the nongovernment railway system by IR with IR's rolling stock and locomotives. Railways will recover the cost of operation from non- government Railways (See Revenue Model).
 Commercial activities related to freight handling at the terminal will be done through Goods Clerk posted by IR whose cost shall be borne by IR. Freight for both outward and inward traffic will be collected by IR.
 IR will be permitted to run one pair of passenger trains with free access to infrastructure .Introduction of more passenger services will require consent of the Non-Government Railway. IR shall fully appropriate the revenue and bear the operational cost of passenger services.

Revenue Model

 Normal IR tariff/ freight rates shall apply on the project line. Freight revenue will be collected by IR and apportioned to the Non-Government Railway as per Inter Railway Finance Adjustment provided for under para 869 of Indian Railway's Finance Code Vol-I net of cost of operation and Other fees/charges. Cost of operation shall be computed in terms of fixed (essential operational and commercial staff to operate the line such as station staff,gate-keepers and maintenance supervisers etc) and variable (rolling –stock usage,fuel/energy, crew etc) costs.A concession fee of 5% of the gross apportioned revenue and other charges such as demurrage on wagons at terminals operated by the Non-Government Railway shall also be recovered.

Sidings and new line connectivity

 IR will have full rights to provide new rail connectivity taking off from the project line or provide sidings from the project line. However,the cost of the new connectivities including modifications to stations/yards shall be borne by new entrants and interests of original customers of the Non-Government Railway for freight movement shall be protected.

Concession Period

 As the project line is on private land and the assets are fully private infrastructure, it will be transferred to IR in case of violations of specified terms of agreement at terms set out in the Agreement or by mutual consent at such terms as may be mutually agreed.

2.0 SPV Model for operationally necessary/ bankable sanctioned Railway projects appearing in the pink book- Salient Features:

Applicability

 It is generally applicable for sanctioned bankable **New line** and **Gauge Conversion** projects having clearly identifiable stake holders either as user of the line or utilities such as ports, mines, exporters, plants and the State Governments. Bankablilty of the projects, if required can be enhanced through innovative financial structuring such as sub ordinate debt, grants etc.

Project Development and project structuring, Land acquisition

 Project development will be done by Indian Railways or its PSU through consulting firms to establish project cost, land requirement, project design and other project component requirements, and project bankability.
 IR will do financial structuring of the project to make it bankable including Identification of risks and mitigation measures.
 Land acquisition will be done either by Indian Railways at the SPV's cost or by the SPV itself as mutually decided. Ownership of the land will vest with the Railways. Land will be given to the SPV on annual token lease of one rupee for the entire concession period. Cost of acquisition of land will be refunded to the SPV on expiry/termination of concession.
 Railway land, as available, and MG/NG assets in case of Gauge Conversion projects ,required for the project will be made available on lease/license at a token rental/fee of Re 1.00 per annum.

Selection of equity partners, Funding, Revenue Model

 It envisages participation of the stakeholders and beneficiaries besides national level infrastructure funding institutions in the development and creation of rail infrastructure through appropriate concession.
 Financial participation will be through equity participation in the SPV. The SPV will be a joint venture with Railways as a partner with IR or its PSU holding a minimum of 26% equity shares. Selection of partners will be done through a transparent Expression of Interest process, with clearly laid down eligibility criteria and equity allotment criteria.
 Debt will be raised through Project Finance route without any guarantee by the Government of India.
 Revenue from the operation on the project line will be collected by IR through its commercial staff. Revenue stream of the SPV shall be established through revenue apportionment from freight operation for the project line length as per Inter-Railway Financial Adjustment as stipulated in IR Finance Code Vol-I. No apportionment of passenger revenues will be made. SPV will provide free access to IR passenger trains.
 Normal IR tariff/ freight rates shall be applicable. The SPV, will, however, be granted tariff freedom over the project line as per provisions of Railways' Act, 1989.Inflated tariff to improve bankability could be approved by Railway Board in specific cases.
 Commercial utilisation of railway land, commercial publicity rights as permissible under the law and public policy.

Construction

 Project construction will be done by the SPV. The SPV, may, however, choose to entrust construction to IR or its agencies by entering into a Construction Agreement. Certification will be done as per the extant rules/policy.

Maintenance

 Maintenance of the project line could be done either by the SPV or by IR through an O&M agreement. In case the maintenance is undertaken by the SPV , supervision/certification shall be done by IR on payment of supervision/certification charges by the SPV.

Operations

 Operations will be done by IR.

Recovery of O&M cost

 IR will recover O&M cost or cost of operation as applicable as per the Agreement. It will pay apportioned revenue net of O&M/ operation cost as applicable, as per a pre-defined formula to be specified in the O&M or Operations agreement.

Concession period

30 years of operation or attainment of pay-back of equity invested at a discount rate of 7% above the rate on 10-year G-sec prevailing at the time of signing of the agreement , whichever is earlier, after which the project line will revert back to Railways.

Risk Mitigation

 Traffic guarantee and rolling stock availability agreement will be signed wherever such guarantees are forthcoming to mitigate the demand risk.

General Features

 SPV shall operate on common carrier principle for public transportation of goods and passengers. For rail users IR continues to be the interface.

3.0 Railway Projects on BOT awarded through Competitive Bidding- Salient Features:

Applicability

 This model shall be applicable to the sanctioned Railway projects where it is not possible to identify a stakeholder or strategic investor who can take a lead in making investment in the project line. The projects under this model will generally be long rail

corridors carrying traffic generated from various streams. These will be sandwiched sanctioned new line and gauge conversion projects or dedicated freight corridors. In the absence of strategic investor, selection of investors will be done through competitive bidding process. The concessionaire so selected will design, build, finance, maintain and transfer the railway line at the end of concession period.

Project Development

 Project development, preparation of DPR, establishing financial viability & bankability will be done by MoR/Zonal Railway by engaging credible consultants and the project will be sanctioned as a railway project following the applicable procedure.

Selection of concessionaire

 The concessionaire will be selected through competitive bidding process. Positive or negative grant will be the bidding parameter.

Design, Build, Finance, Maintain and Transfer(DBFMT) Concession

 The project will be funded by the concessionaire. The concessionaire will design and build the project within the design & performance parameters specified by MoR. The statutory/mandatory design approvals, wherever required, will have to be taken from CRS or the concerned Zonal Railway. However, it will be the responsibility of the concessioning authority/IR/Zonal Railways to get these approvals within a specific timeframe.
 Land acquisition for the project will be done by the Railways at their cost. Land will be owned by the Zonal Railways. It will be given to concessionaire on license.

Revenue share

 The net revenue payable to the concessionaire shall be fixed at 50% of the gross apportioned revenue. Apportioned revenue for the project section will be computed as per Inter Railway Financial Adjustment and 50% of the amount shall be deducted towards Operational expenditure. Regardless of actual running of trains, train chargeable to the route as per the routing indicated in the Railway Receipt (RR) shall be considered for apportionment.

Construction

 Project construction will be done by concessionaire through its own agency under mandatory certification and supervision from Railways.

Maintenance

 The concessionaire shall be responsible for maintenance of the project line to make it rail-worthy at all times including replacement/renewal of assets as per IR standards and specifications. Supervision and certification shall be done by IR on payment of specified charges.

Operation

 Train operation will be done by Indian Railways.

Concession Period

 Concession period will be fixed at 25 years. This shall include the Construction period. The concession period shall be subject to both upward and downward revision depending on shortfall/excess of traffic materialisation vis-à-vis the specified threshold traffic (80% of the total traffic to be carried during the Concession period expressed in terms of million tonne kilometres) on the Target Date(20 years after signing of the Agreement). Threshold traffic shall be determined on the basis of the Feasibility Report. For every shortfall of 5%, the Concession shall be extended by one year and the reverse principle shall apply if actual traffic exceeds the threshold traffic. However, the concession period shall not be less than 20years and more than 30 years.

4.0 Connectivities funded by users, but to be used as multi-user lines -Salient Features:

Applicability

 As per current policy, the single user rail connectivity to mines and plants is provided under the private siding policy. Such a policy has been found wanting in case where the length of the rail connectivity is long and cost of construction is so high that it cannot be loaded to the main facility/project. The industry recognises the fact that such single -user connectivity cannot be provided by the railways with their funds or by providing commercial returns to investors. Many such longer rail connectivities ,though initially for single users, have significant potential to become multi-user facilities in future with development of other industry, mining etc. Nevertheless, they do expect a partnership with Railways to develop the rail infrastructure speedily in a manner which does not put undue burden on Railways.

Project Development, Financing, Construction, Maintenance and Operation

 The project will be structured and developed on the lines described in para 6.1.The project developer will develop, construct and maintain the line as per IR standards. IR shall operate the line, collect the freight and pay 50% of the apportioned earning computed in terms of Inter-Railway adjustment as compensation to the original developer till the estimated cost of the project sanctioned/vetted by IR at the time of execution of agreement is recovered. For the purpose of apportionment, all loaded traffic moving on the line shall be considered. Thereafter, the line shall be taken over by IR.

Sidings and new line connectivity

 IR will have full rights to provide new rail connectivity taking off from the project line or provide sidings from the project line. However,the cost of the new connectivities including modifications to stations/yards shall be borne by new entrants and interests of original customers of the Non-Government Railway for freight movement shall be protected.

5.0 Capacity Augmentation (Doubling/Thirdline/Fourth line,etc) with Funding provided by customers.

This model addresses doubling/ multiple line projects where some customers are beneficiaries of the capacity addition and may be interested in funding the project for expeditious completion/commissioning.

Project Development, Financing, Construction, Maintenance and Operation

 The project will be sanctioned as a railway project on the basis of an MOU/Agreement entered into between Railways and the Customers wishing to fund the project in full or part. It will be constructed, maintained and operated by Railways. The ownership of the line and its operation and maintenance will always remain with Railways.In return, Railways will pay 7% of the amount invested through freight rebate on freight volumes every year for 30 years or till the funds provided by the project beneficiary is recovered, whichever is earlier.

6.0 Capacity Augmentation (Doubling/Thirdline/Fourth line,etc)- Annuity Model

Applicability

This model is applicable to sanctioned doubling, third line and fourth line projects where it maynot be possible to find funding from anyspecific user.

Project Development, Financing, Construction, Maintenance and Operation

 Indian Railways will be responsible for project formulation, DPR, Final Location Survey etc. The feasibility report would be prepared by a consulting firm to provide an indicative assessment to the prospective bidders. The prospective bidders will carry out due diligence on the feasibility report.

 Indian Railways shall also be responsible for finalization of Engineering Scale Plans & Signal Interlocking Plans, if anyas also technical standards and specifications.

Land acquisition

 Land acquisition and shifting of structures to the extent required would be done by IR.

Nature of Design, Build and Transfer concession and selection of the Concessionaire

 The concession would be for financing and construction. Supervision and certification of construction would be carried out by IR under guidelines specified in the agreement.
 Train operations and maintenance will be by IR i.e. IR will manage stations, signals, level crossing gates, if any, running oftrains and section control.
 IR shall, based on the requisite papers submitted by the Concessionaire, apply for and obtain CRS sanction.

 Non-interlocking (NI) activities preceding operationalization of the double/multiple line will be undertaken within a stipulated period after Construction Completion Certificate in respect of the civil works is furnished by the Concessionaire. NI will be done by the Concessionaire under the supervision of IR.
 Track-mounted technological tools could be deployed to eliminate possibility of disputes on account of flat-wheels, hot axles, hanging parts during the period of defect liability. In addition, an appropriate mechanism would be set up for resolution of technical disputes.

Revenue model

 The concessionaire would be paid through annuity for limited predetermined period. Annuity will be determined through competitive bidding

 Annuity payments will be budgeted and paid on a committed basis.

7.0 State Governments: In case state governments or their agencies evince interest in developing and taking up any railway project in their respective states, they can participate under the schemes described herein. In particular, if projects can be structured as a Non-Government Railways as defined in the Railways Act,1989, they will be permitted to take up such projects under the framework described in para 6.1 above. Further, they will be permitted to bid out such projects within the boundaries of the Concession Agreement . In other words, they will not create any additional encumbrances on the project assets or additional obligations on Railways. They will be, however, fully responsible to meet their commitments to Ministry of Railways regardless of the outcome of the bidding.

Few examples of PPP projects :

 The DMIC project was launched in pursuance of an MOU signed between the Government of India and the Government of Japan in December 2006. DMIC Development Corporation (DMICDC) incorporated in 2008, is the implementing agency for the project. DMICDC has been registered as a company with 49% equity of Government of India, 26% equity of the JBIC and the remaining held by government financial institutions. The Japanese Government had also announced financial support for DMIC project to an extent of USD 4.5 Billion in the first phase for the projects with Japanese participation involving cutting-edge technology.

BENGALURU-MUMBAI ECONOMIC CORRIDOR

- The consultant has since prepared the Draft Perspective Plan Report of BMEC region and also discussed with the concerned State Governments, DIPP and DMICDC, nodal Agency recently. Four nodes in the State of Maharashtra and six nodes in the State of Karnataka have been identified under perspective planning, of which, one node from each State Governments is to be shortlisted by State Government for master planning. State Government of Karnataka had identified 'Dharwad' as the first industrial node in Karnataka

under the BMEC. DMICDC, the nodal agency of project, has initiated the work of master planning of 'Dharwad' Node in Karnataka.

CHENNAI-BENGALURU INDUSTRIAL CORRIDOR PROJECT

- Master planning of three identified nodes namely Ponneri (Tamil Nadu), Tumkur (Karnataka) and Krishnapatnam (Andhra Pradesh) in CBIC has since been completed. Preliminary Environment Impact Assessment Study for these nodes is under progress. State Governments have been asked to finalise Legal framework for signing of State Support Agreement (SSA) and Share Holder Agreement (SHA).

VIZAG-CHENNAI INDUSTRIAL CORRIDOR

- Asian Development Bank (ADB), consultant of VCIC has since submitted the final report on Conceptual Development Plan (CDP) of VCIC. Out of four nodes namely Vishakhapatnam, Kakinada, Gannavaram and Kankipadu and Srikalahasti-Yerpedu of Andhra Pradesh identified by ADB in their CDP-VCIC region, ADB prioritised two nodes namely Vishakhapatnam and Srikalahasti-Yerpedu for which master planning has been initiated by third quarter of 2015. Regional Perspective Planning of VCIC is in progress. Department of Economic Affairs has accorded approval of project loan of USD 500 Million and programme loan of USD 125 Million from ADB to the proposal of Government of Andhra Pradesh for VCIC-DP.

AMRITSAR–KOLKATA INDUSTRIAL CORRIDOR

- DMICDC has been entrusted with the work of undertaking the feasibility study of AKIC as the nodal agency. DMICDC has since identified and appointed M/s LEA Associates South Asia Pvt. Ltd. as Consultant for preparation of Perspective Plan for AKIC Project. The consultant has submitted the interim report which has been discussed with the stakeholders.

Conclusions :

The Indian Railways carry a heavy burden of expectations. Citizens who demand better railway services are often not aware of the constraints that the Railways operate under. There are 1219 sections on the high-density network, which can be roughly equated with tracks connecting the metros. Out of these, 492 are running at a capacity of more than 100% and there are another 228 that are running at a capacity of between 80% and 100%. If a section is over-stretched, the entire line is over-stretched. There is no slack

available for maintenance and train speeds slow down. On a single track, the Indian Railways have to run fast express trains like Rajdhani and Shatabdi, ordinary slow passenger trains as well as goods trains. Is it surprising that though Rajdhani and Shatabdi are capable of doing 130 km/hour, the average speed does not exceed 70? Is it surprising that the ordinary passenger train or a goods train cannot average more than around 25 km/hour?

In the next five years, our priority will be to significantly improve capacity on the existing high-density networks. Improving capacity on existing networks is cheaper. There are no major land acquisition issues and completion time is shorter. The emphasis will be on gauge conversion, doubling, tripling and electrification. Average speed will increase. Trains will become more punctual. Goods trains can be timetabled.

Given the importance of rail travel for our citizens we will increase our daily passenger carrying capacity from 21million to 30 million. We will also increase track length by 20% from 1,14,000 km to 1,38,000 km, and we will grow our annual freight carrying capacity from 1 billion to 1.5 billion tonnes.

Finally, to make Bhartiya Rail financially self-sustainable. This will mean generating large surpluses from our operations not only to service the debt needed to fund our capacity expansion, but also to invest on an on-going basis to replace our depreciating assets. This will require material improvement in operating efficiency, tighter control over costs, greater discipline over project selection and execution, and a significant boost to Railways' revenue generating capacity.

These goals will also ensure that Railways is an integral part of all the flagship programmes that our Prime Minister has launched for improving the quality of life of the downtrodden, from Swachh Bharat to Make in India, and from Digital India to Skill India.

How will we achieve this? Our execution strategy will have five drivers:

a) Adopting a medium-term perspective: Any organization must address short-term priorities without glossing over the long-term and medium-term vision. As Vinoba Bhave once said, "You will stumble if you look close to your heels and would certainly fall if you ignore the vision of the long road."

b) Building Partnerships: Transforming the Railways will require us to partner with the key stakeholders.

First, consistent with the Prime Minister's vision of cooperative federalism, we will work closely with the States to make the Railways the backbone of national connectivity. Their economies and citizens will benefit dramatically from an improved railway system. The voice of the locals will reverberate through the State Governments in the planning and execution of railway projects. They will also be able to raise financing through special purpose vehicles that we will create with them. Most of them have already expressed a keen interest to make the improvement of the Railways a joint endeavour and a shared success.

Second, we will partner with PSUs to ensure that sufficient capacity is built to transport critical commodities like coal, iron ore, and cement, etc., from where they are extracted or imported to where they are consumed or processed.

Third, we will partner with multilateral and bi-lateral organizations and other governments to gain access to long term financing and technology from overseas.

Finally, we will partner with the private sector to improve last mile connectivity, expand our fleet of rolling stock and modernize our station infrastructure.

c) Leveraging additional resources: Over the next five years, IR envisages an investment of Rs. 8.5 lakh crore.

Budgetary support is the quickest and easiest option to finance the plan but the Ministry of Finance also faces challenges of competing demands although a small initial contribution to Railways can be catalytic. But the scale of our investment needs is such that it will require us to seek multiple sources of funding. We will tap other sources of finance. Multilateral development banks and pension funds have expressed keen interest in financing new investments. Their time horizon is aligned with ours. They seek sources of predictable and recurring revenue, which we can provide through the issuance of long-term debt instruments to fund revenue generating railway projects.

d) Revamping management practices, systems, processes, and re-tooling of human resources: To get the most out of the additional resources that we will be investing, we will need to ensure the highest standards of operational and business efficiency. It is good to report an improvement on financial performances in the year 2014-15 relative to what it

had anticipated earlier. It is proposed the operating ratio for 2015-16 at 88.5% as against a targeted operating ratio of 91.8% in 2014-15 and 93.6% in 2013-14.

The Railways will not be able to deliver sustained improvement in operating efficiency unless changes are made to speed up decision making, tighten accountability, and improve management information systems.

Our people are our biggest asset. Even in the short term that I have held this portfolio I have seen the enthusiasm and dedication of Railway personnel across the country. For our transformation journey to succeed it will be very important to harness the talent of our employees through training and development.

e) Setting standards for Governance and Transparency: The Railways belongs to the whole nation. Its functioning must conform to the highest standards of governance and transparency. Indian Railways' decisions must be fair to all our stakeholders; from our poorest customers, to our employees and our business partners.

IR wants to delegate all tender approving powers to the level of general managers. Transparency has many dimensions. It requires better quality of information gathering within that system and improved norms for disclosure of that information. It requires reduction of discretion and standardization of procedures.

The report that the railways is opening up projects worth Rs 12,000 crore to private and foreign investors and that more such projects would follow raises optimism that we finally may be close to making a breakthrough in stepping up investment in the railways. Most of these projects are those which has been officially sanctioned but held up due to lack of adequate fund.

The areas now opened up to private investors include construction of a dozen odd freight lines and setting up four locomotive maintenance depots, coach making, electrical, mechanical, wagon overhauling and coach rehabilitation units. Then there are also a few projects for setting up automatic signaling systems and construction and management of railway station in a dozen odd important cities.

These are major gains because private investment in railways remain miniscule. According to the railway ministry only five major line construction projects have been made operational under the PPP system of which three are making profits. Such slow progress on PPP projects makes no sense given the railways are cash strapped for completing 154

new rail lines, 44 gauge conversion projects and 166 line doubling projects which would require as much as Rs 1.82 crore lakhs for completion.

Though current policy allows for private investment in a host of areas including port connectivity, elevated rail corridors, private freight terminals, special purpose wagons, station development, high speed corridors, production units, freight corridors, logistic parks, electrical and diesel locomotive plants, coach manufacturing and providing electrical works the progress has been tardy. But the chances of a quick pick up are substantial given that in principle clearance has been given to 9 proposals for port connectivity, 22 proposals for private freight terminals and 53 private rakes. Of all these the only major gain so far is the induction of only 24 rakes.

Faster progress on the PPP front would also require that the railways put in place a proper framework for selection of partners and implementing projects. In fact a recent CAG report has pointed out the need for a model concession agreement for PPP projects, more accuracy in data and assumptions, setting times lines for financial closure of projects and strengthening the monitoring mechanisms.

Overcoming these drawbacks would put the Indian Railways on a better footing to handle PPP projects and accelerate reforms. This will not only help railways to improve efficiency and offer better services but it will also reduce its dependence on government funding. But sustained progress on this front hinges on many factor including a well-researched time plan to rollout targeted private investments.

Another major aspect of railway reforms the world over and especially in large networks like that in the EU is that it usually requires multiyear efforts sometimes spanning more than a decade. Multilateral agencies point out the railway reforms in the EU has now stretched for more two decade and that it is expected to continue for a long time. Long consultation and frequent reviews are the hall marks of most railway reform programs.

This is because railways are often the single largest employer in many countries that have introduced reforms. This makes them politically significant institutions and reform programs have to incorporate these elements while devising strategies. This also requires drawing up a comprehensive communication strategy to get all stakeholders on board. We can only hope the Indian Railways can rise to the occasion under the new dispensation.