Indian Railways

ALTERNATIVE SOURCES OF FINANCING

DECEMBER 21, 2015

Financing Infrastructure: the challenge

- Investment in infrastructure is lumpy
- Projects have a long gestation period, i.e. the returns come in many years so the private sector is not willing to invest
- Traditionally, all over the world, infrastructure investment has been through the budget

Financing Infrastructure: Options for IR

Infrastructure creation:

- Funded through the budget – including internal accruals & gross budgetary support (GBS), or
- Alternative sources
  - Public Private Partnerships
  - Equity participation including Foreign Direct Investment (FDI) & JVs
  - Debt
    - Domestic markets
    - External Commercial Borrowings (ECBs)
    - Multilateral/bilateral development banks

IR: Committed liabilities on Revenue Generation (2014-15)

Revenue expenditure:

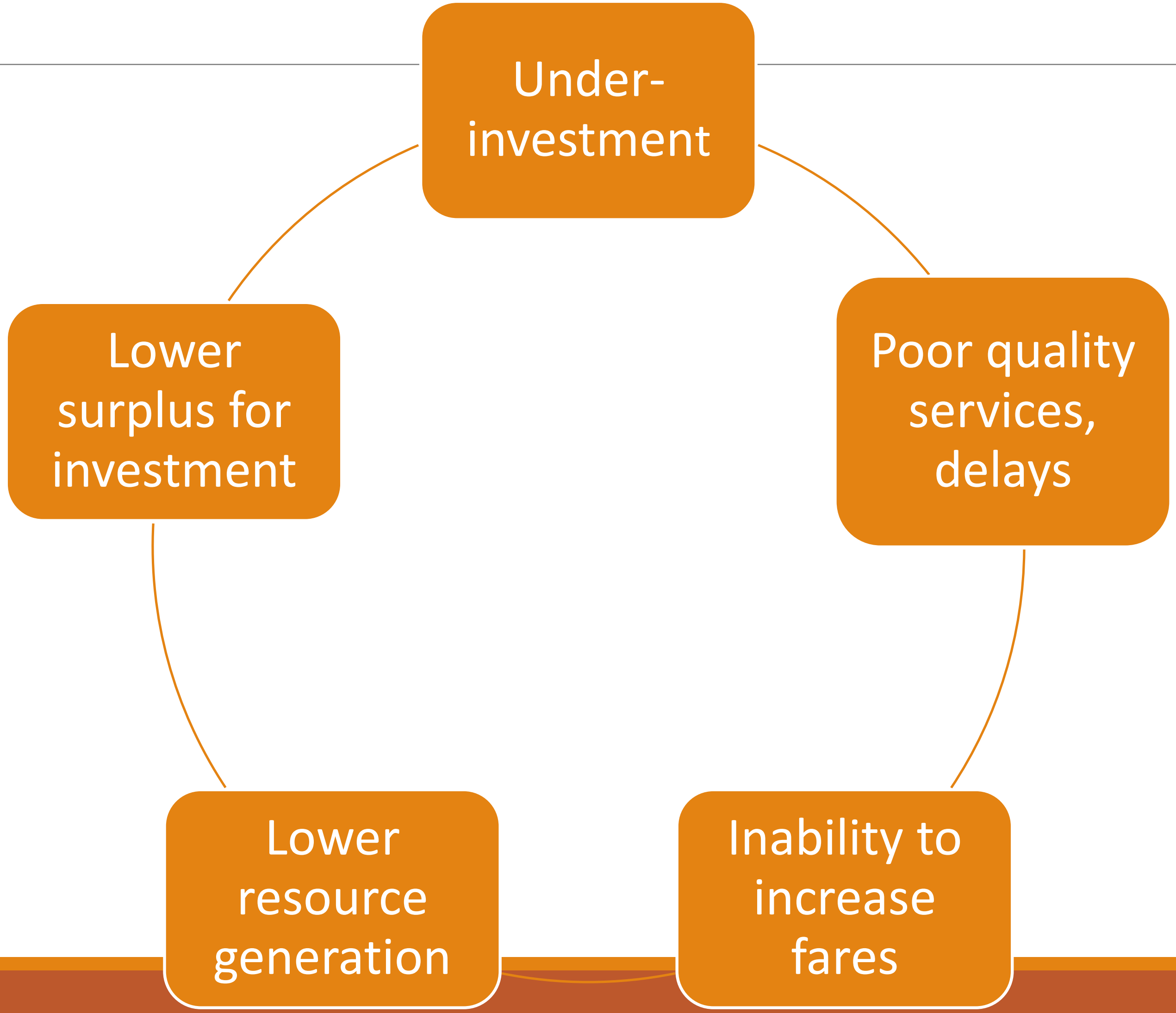
- *Staff with Pension - 52%*
- *Fuel bill - 19%*
- *IRFC payments – 5%*
- *Stores- 3%*
- *Other - 9%*

Social service obligations

- *Passenger and other coaching services*
- *Operation of uneconomic branch lines*
- *Concessions*
- *Essential commodities carried below cost*

Little surplus for investment in capital

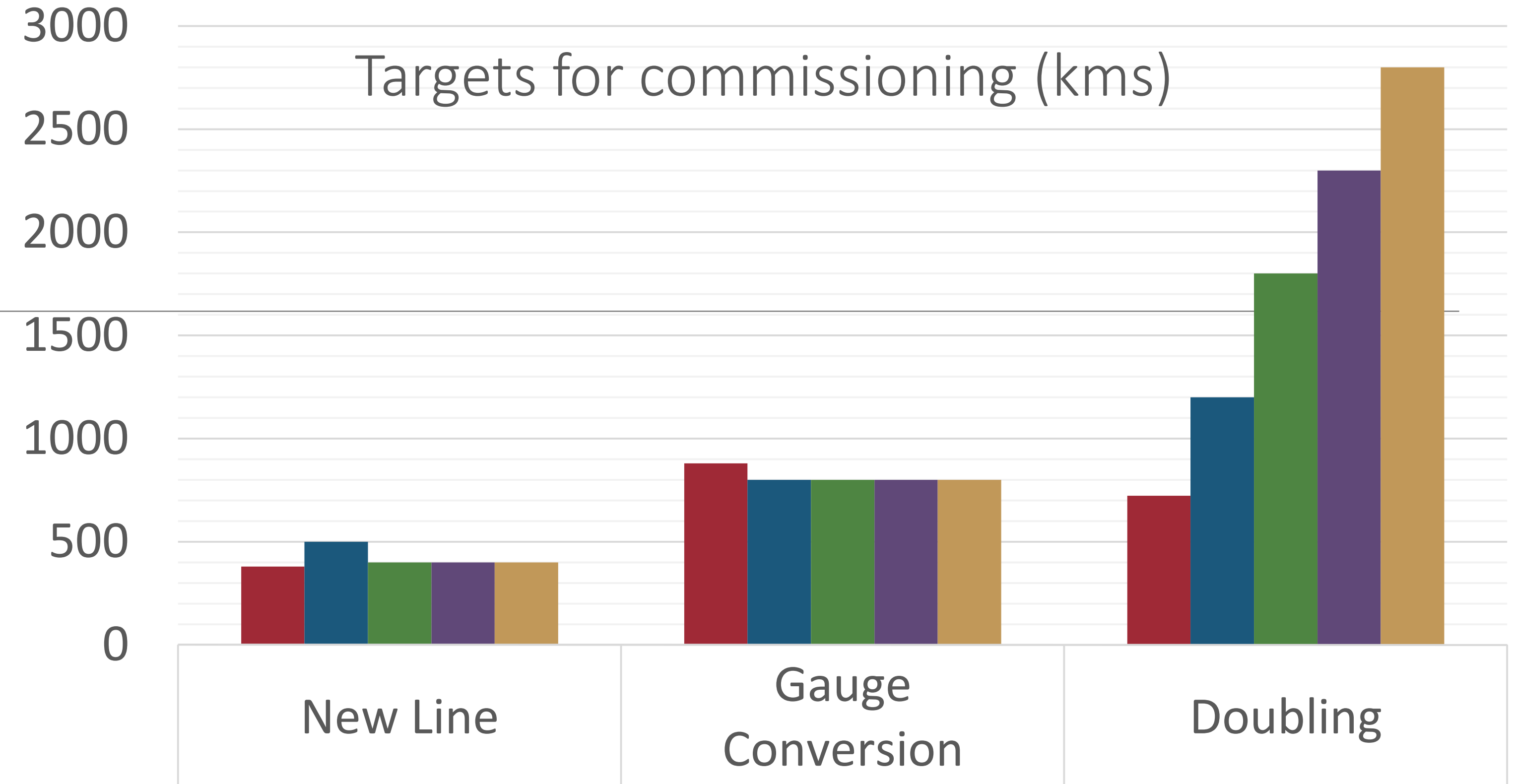
Under-investment in IR:
the vicious circle



INVESTMENT PLAN

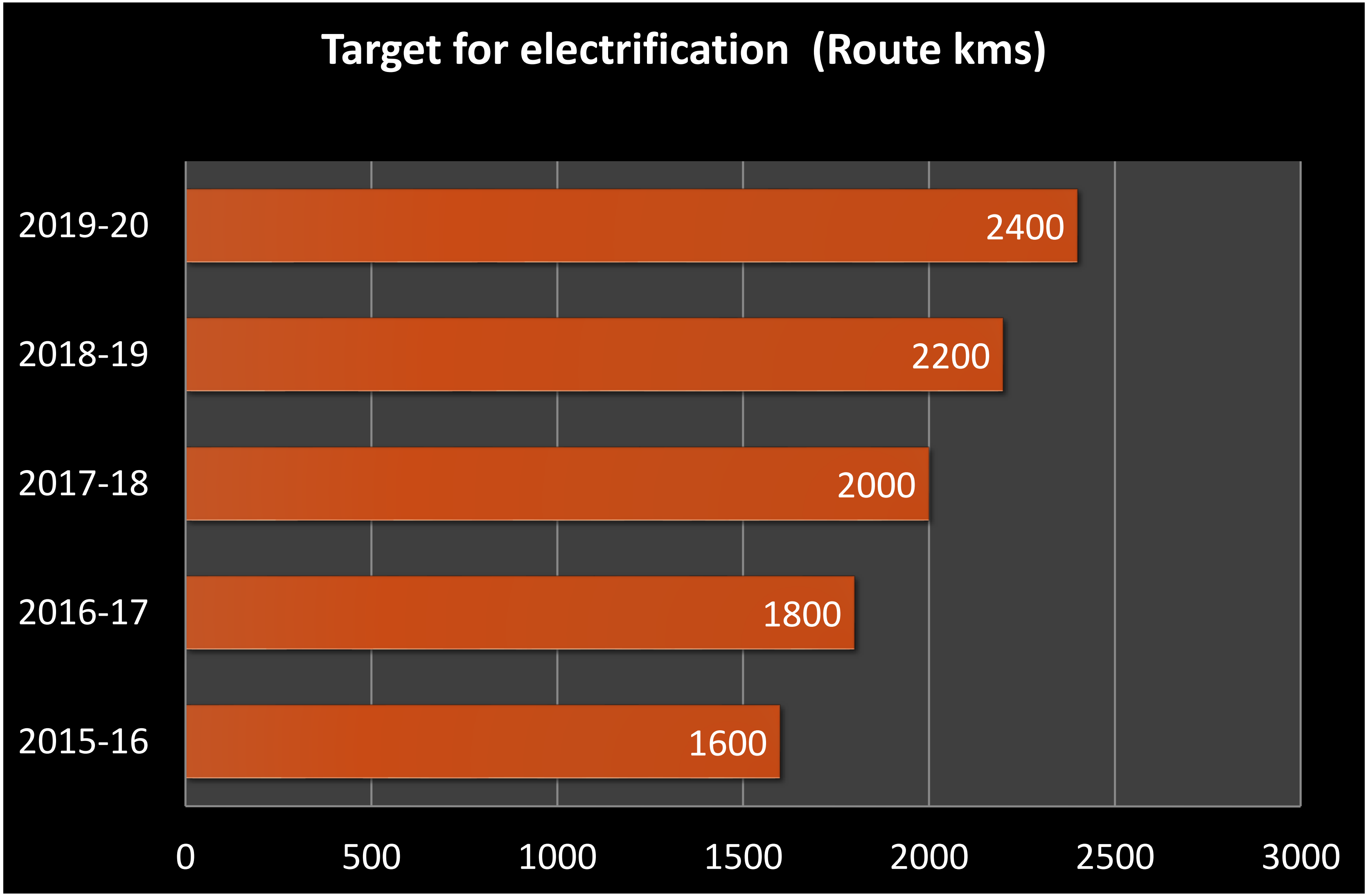
Item	5 years
	Rs. in cr
Network Decongestion (including DFC + electrification, Doubling + electrification & traffic facilities)	199320
Network Expansion (including electrification)	193000
National Projects (North Eastern & Kashmir connectivity projects)	39000
Safety (Track renewal, bridge works, ROB, RUB and S&T)	127000
Information Technology / Research	5000
Rolling Stock (Locomotives, coaches, wagons – production & maintenance)	102000
Passenger Amenities	12500
High Speed Rail & Elevated corridor	65000
Station redevelopment + logistic parks	100000
Others	13200
TOTAL	**856020**

2015-19



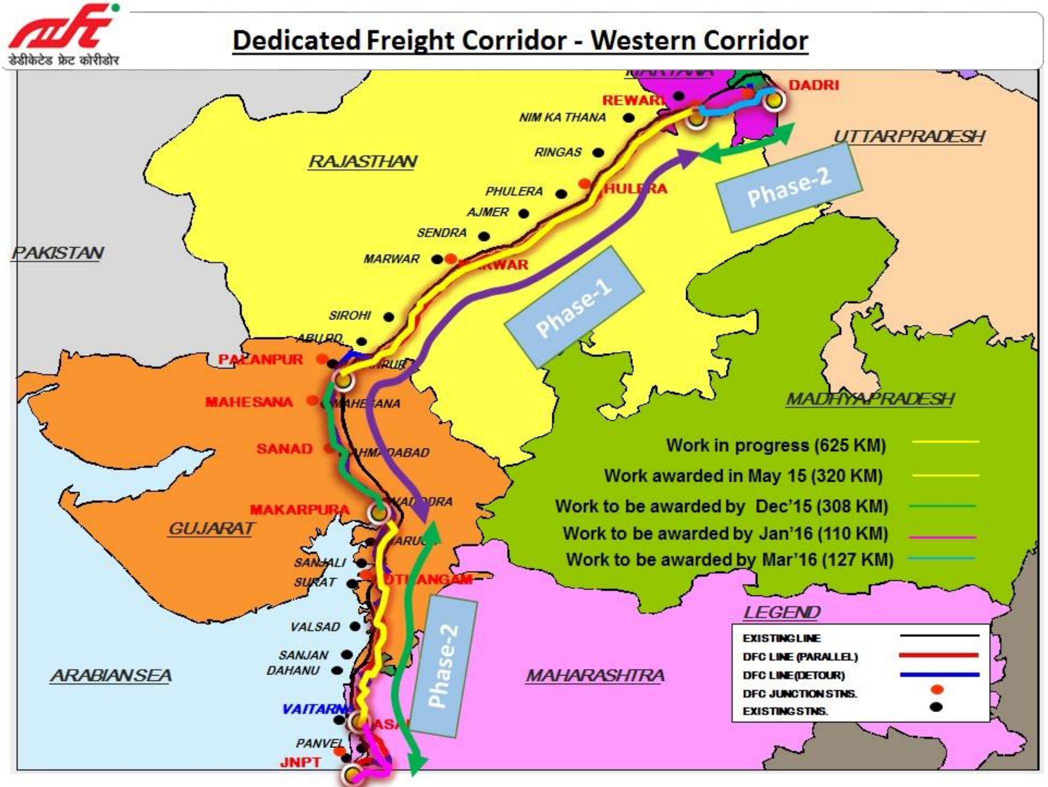
	New Line	Gauge Conversion	Doubling
2014-15	380	880	723
2015-16	500	800	1200
2016-17	400	800	1800
2017-18	400	800	2300
2018-19	400	800	2800

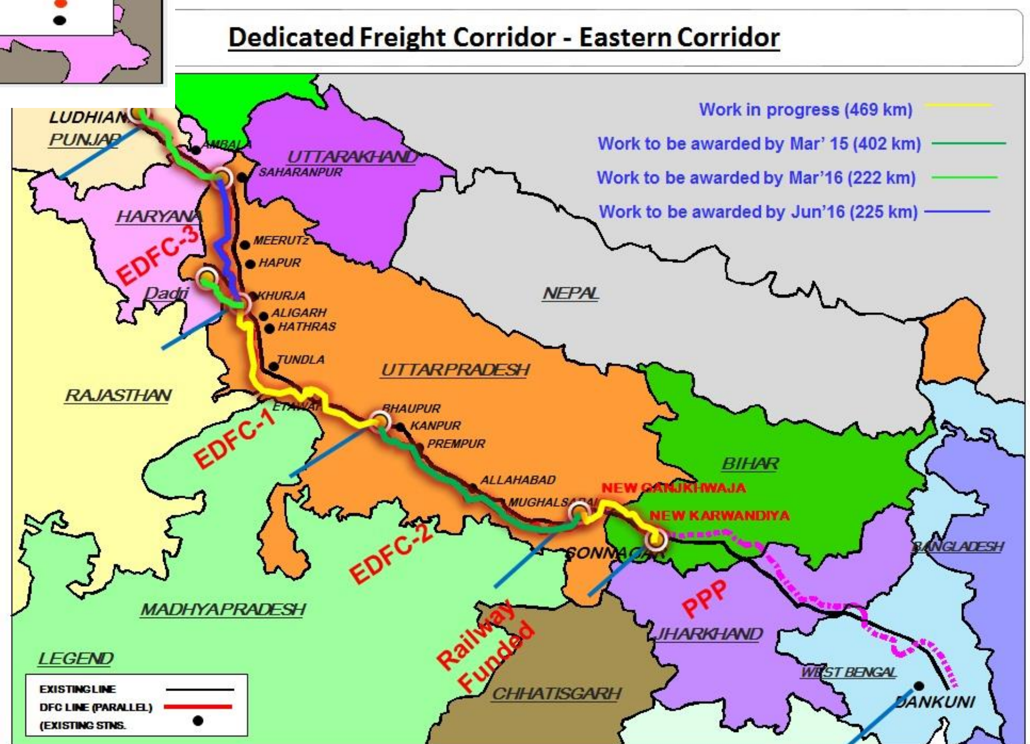
About 500-600 km doubling & 100 km gauge conversion to be commissioned every year through Railway PSUs


Target for electrification (Route kms)
2019-20
2400
2018-19
2200
2017-18
2000
2016-17
1800
2015-16
1600
0
500
1000
1500
2000
2500
3000

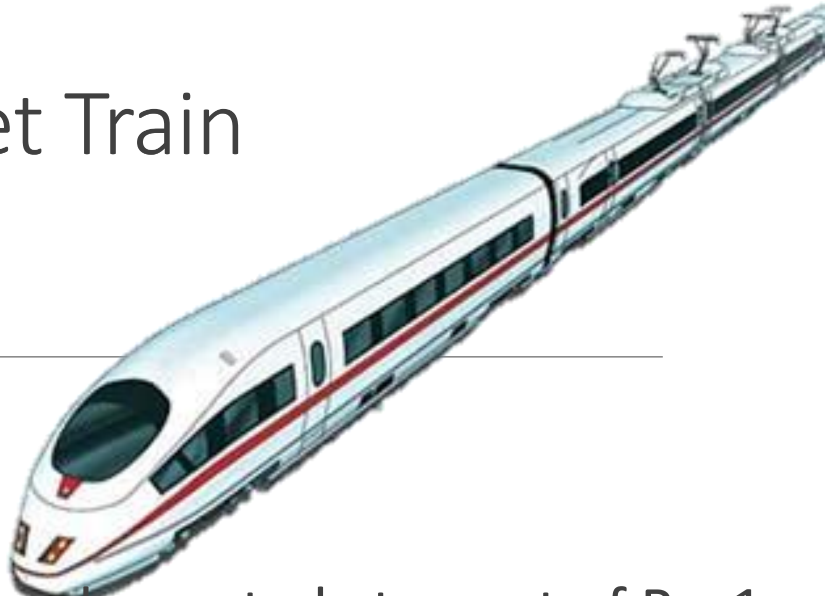
Dedicated Freight Corridor

- 2 corridors: Eastern & Western
- Target for commissioning – 2019





High Speed Rail – the Bullet Train



- Mumbai to Ahmedabad corridor to be implemented at a cost of Rs. 1 lakh crore
- Cabinet approval in place
- Funding by JICA @ 0.1%; Tenor 50 years; 10/15 yrs moratorium
- Travel time: 2 hrs between Mumbai & Ahmedabad @ 350kmph
- Construction period 2017-2023
- 12 stations: Mumbai, Thane, Virar, Boisar, Vapi, Bilimora, Surat, Bharuch, Vadodara, Anand/Nadiad, Ahmedabad & Sabarmati

Station redevelopment

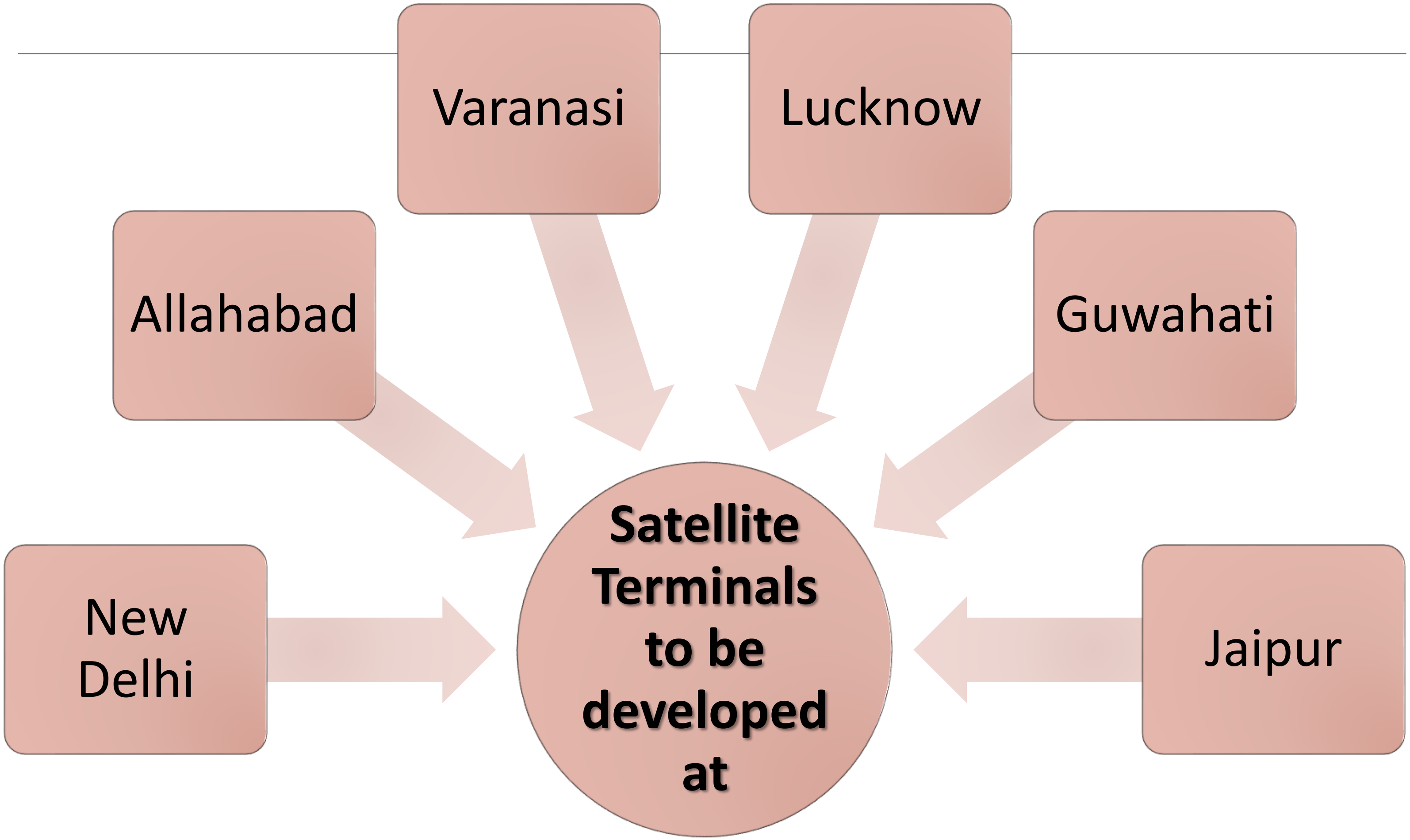
- 2010 – 50 stations identified for redevelopment to world class standards; no tangible progress till 2014
- Habibganj RFQ issued in October 2014, Anand Vihar – RFQ 16-10-2015 & Bijwasan RFQ 18-10-2015 for development through private investment during the current year
- Chandigarh, Shivaji Nagar, Surat & Gandhinagar slated for bid out next year
- New Policy for redeveloping 400 major stations finalized with Cabinet approval
- Guidelines issued to zonal railways, information being uploaded on website for prospective bidders
- Expected investment of over Rs. 1 lakh crore
- Joint Development of 24 stations with Ministry of Tourism to promote tourism; work started on 7 stations (Rae Bareilly, Amritsar, Agra Cantt, Gaya, Trivandrum, Jaipur & Ajmer)

Station redevelopment through PPP

Anand- Vihar: Existing Station Building

Proposed architectural views

Satellite Terminals in Cities:
easing load off existing main city terminals



Modern rolling stock

- 2 Loco Factories at Madhepura and Marhowrah successfully bid after 7 years
  - Rs. 3,500 crore Capital investment expected
  - An order book of Rs. 40,000 crore over next 11 years
- 200 Locomotives (9000 HP) being procured for Western DFC costing over Rs. 5000 crore; involves setting up maintenance facility at Rewari
- Train sets for improving passenger comfort & reducing travel time; EOI invited. 5 international bidders shortlisted for participation in RFP.
- Rail Coach Factory at Kanchrapara – RFQ open till Feb 1, 2015.

Expected outcomes – 2018-19

1700 kms new line, 8100 kms doubling

3 stations completely redeveloped to international standards

10 train sets operationalised

Dedicated freight corridor commissioned

Production of state of the art locos

Additional 10,000 kms of electrification

Elimination of 5000 unmanned level crossings & 1200 manned level crossings

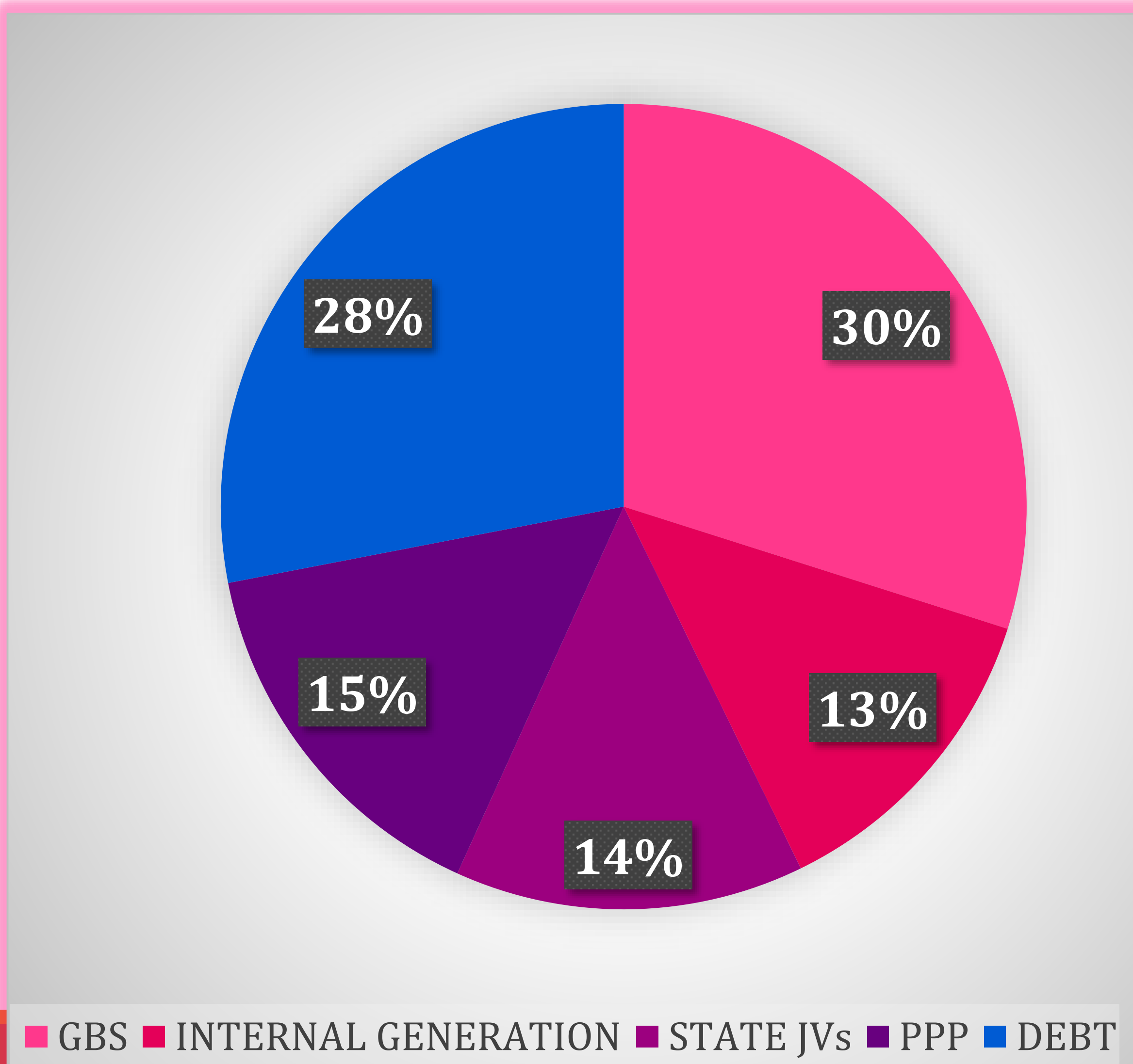
Internet ticketing penetration – increase from existing 54% to 75%

Paperless ticketing in all suburban sections

1000 MW of solar power generation

Mobilising resources

Five year Fund requirement (tentative)



(Rs. in lakh crore	
Gross Budgetary Support	2.56
Internal generation	1.00
State JVs	1.20
PPP	1.30
Debt	2.50
Rolling stock lease	*1.00*
Institutional financing	*1.50*
Total	8.56

Financing the Plan 2015-16

Sources of Funds	2015-16 (Rs. in crore)	% share
Gross Budgetary Support#	41,645	41.6%
Internal resources	17,793	17.8%
Extra Budgetary Resources (EBR)	40,572	40.6%
- Market borrowings through IRFC	17,655*	17.7%
- EBR (Institutional Finance)	17,136	17.1%
-Public Private Partnerships	5,781	05.8%
Total Plan outlay	1,00,011	100%

includes Rs. 1,645 from Central Road Safety Fund

* Rs. 17,276 crore towards rolling stock & Rs. 379 crore for RVNL Projects

Initiatives - Resource Mobilisation

JVs with State Governments

- Railway & State Governments to be shareholders
- Revenue streams from tariff and commercial exploitation of space rights

JVs with Public Sector Units (PSUs)

- For construction/expansion of lines, JVs to be set up with key customers of IR
- PSU companies to provide funds upfront for undertaking projects

Off-budget debt

- IR to tie up long-term fund for projects
- IR PSUs to leverage free reserves/ equity for raising debt
- IR to tap international low cost pension & insurance funds for 20/30 year paper

Initiatives – Resource Mobilisation (contd.)

Innovative financing including PPP

- Areas: Redevelopment of railway stations, Electrification & Signalling (EPC, PPP-annuity) , Construction of freight lines/elevated corridor (PPP - BOT or Annuity), Port & Mine connectivity projects (JVs or PPP - annuity)

Non-tariff revenues

- Revenues from advertisements, exploiting air rights over stations & other buildings, land along tracks, OFC, export of products & services, tap solar energy along tracks, buildings, etc

Sourcing Funds – a snapshot

- Enhanced Gross Budgetary Support
- Institutional financing: LIC – loan agreement effectuated
- JVs: Projects worth Rs. 1 lakh crore expected to be executed through JVs with State Governments; Maharashtra already committed Rs. 10,000 crore, Odisha signed MOU with IR
- Market debt: Tax free bonds – Rs. 6000 crore in current year
- Multilateral/bilateral agencies
- Implementation of projects through Railway PSUs
- Station Development
- CSR & MPLAD funds for passenger amenities and cleanliness & waste management

Financing projects

INSTITUTIONAL FINANCING

Why Institutional financing

- Convert vicious cycle of under-investment to a virtual cycle of revenue generation and higher investment
- Leverage conventional sources of fund to finance projects through institutional debt
- Low cost, long term financing
- Serviced through enhanced revenue generation
- Will be able to access funds through
  - Multilateral development funds, NBFCs, Insurance companies, Infrastructure funds, Sovereign wealth funds, Investment trusts

Implications

Assured availability of funds for projects taken up for financing through institutional financing

Funds do not lapse at the end of financial year

Which projects to fund through institutional finance

- Ongoing works
  - Prioritised works being taken up – choked freight carrying routes
  - Year-wise cash flows and milestones for completion provided by each Railway/ RVNL/ CORE duly signed by GM, CAO and FA/Con
  - Works should be completed before 2019-20
  - No impediment to immediate drawal of funds
- New Works sanctioned in 2015-16
  - Projects which have RoR of at least 14%
  - Year-wise cash flows and milestones for completion to be provided by each Railway/ RVNL/ CORE duly signed by GM, CAO and FA/Con

Loan repayment capability – the assumptions

- Prioritised projects essentially doubling projects with a few other projects of electrification, new lines, etc, hence, revenue generating projects
- Ministry of Coal projected coal production of 1.5 bn by 2020
- Ministry of Steel projected steel production of 300 MT and inputs of 500 MT for manufacturing this steel by 2025
- Large number of ports being expanded & developed
- For meeting the liability of loan repayment, incremental traffic of about 360 MT over & above the normal flow will have to be carried by 2025-26
- The proposed works would have been completed in five years time, hence, higher traffic than the usual flow should materialise to repay the loan

Prerequisites for financing through EBR/IF

- Robust appraisal of projects
- Selection of projects which are clear for drawal of funds; unutilised funds would be a drain on Railway finances
- Realistic assessment of fund requirement
- Timely completion of projects leading to timely generation of revenues for repayment

Intensive monitoring required to avoid slippages

LIC Financing Facility

March 11, 2015 – MOR signed MOU with LIC of India for extending a financing assistance of Rs. 1.5 lakh crore for the next five years; Rs. 2000 crore drawn

- rate of interest : 30bps above the 10-year benchmark yield
- funds would be drawn in tranches, as per requirement
- tenor of the facility would be 30 years
- MOR owned entities can draw funds available under this facility
- LIC will invest in bonds issued by IR companies such as IRFC
- Moratorium:
    - on interest and principal payment for first 5 years; interest to be capitalized
    - year 6 to year 10 interest liability to be met; year 11 to year 30 repayment of principal and interest in equated half yearly instalments, i.e. 40 instalments

Financing projects

MULTILATERAL/BILATERAL ASSISTANCE

Financing DFC

WB & JICA loans for DFC

World Bank

- committed USD 2.725 bn (INR 17,712 cr @ 1 USD = INR 65) loan for Eastern DFC
- 1st loan through MOR Budget to DFC, rest direct to DFCCIL
- loans on back to back terms
- interest @ 40bps above LIBOR, spread varies depending on WB cost of funds; Involves currency fluctuation risk

JICA

- JICA loan JPY 646 billion (incl for procurement of locos)(Rs. 34,880 cr @ 1JPY = INR 0.54)
- Flows through GBS, Interest liability @7% p.a. & moratorium of 10 years; No currency fluctuation risk

Rail India Development Fund (RIDF)

- Fund proposed to set up with World Bank assistance
- Independent of Railway Budget
- Initial Railway & World Bank contributions
- Sovereign wealth funds and pension funds to be tapped
- Independent management
- Projects capable of repaying debt to be financed including PPPs
- Currently feasibility study being undertaken by World Bank

Financing infrastructure

PRIVATE PARTICIPATION – PPP, FDI, ETC

FDI in Rail Sector

FDI is recently permitted in construction, operation and maintenance of the following:

- Suburban corridor projects through PPP.
- High speed train projects
- Dedicated freight lines.
- Rolling stock including train sets and locomotives/coaches manufacturing and maintenance facilities.
- Railway Electrification.
- Signaling systems.
- Freight terminals.
- Passenger terminals.
- Infrastructure in industrial park pertaining to railway line/sidings including electrified railway lines and connectivity to main railway line.
- MRTS.

Rail Connectivity/Capacity Augmentation

Participative Policy 2012 with five different models

- Non Governmental Private line model
- JV model
- BOT through competitive bidding
- Capacity Augmentation through Customer funding
- Capacity Augmentation through – Annuity model

Non Governmental Railway Private Line

- Entirely private funded (incl land)
- In perpetuity
- Train Operations by IR
- Maintenance and Station Operation by private entity
- Passenger train on mutual consent
- Infrastructure provider will get a user fee

Joint Venture Model

- To be implemented by formation of JV with Railways or its PSU having a minimum of 26% equity.
- PSU undertakes project development
- Land by JV or MOR; cost borne by JV
- Construction and funding to be done by JV
- Normal concession period 30 years. (Flexible concession period)
- Operation by IR
- User fee equivalent to 50% of apportioned revenue

Capacity Augmentation with Customer Funding

- Funding by major customers/users/beneficiaries requiring such projects
- project advance provided with construction, maintenance, operation by Railways
- Repayment of up to 7% of the amount invested through freight rebate every year till full amount is recovered with interest rate equal to dividend rate

Build Own Transfer (BOT) – user charge based

- Concessionaire responsible - **Design, Build, Finance, and Maintain**
- Viability Gap Funding from Government will be the bid parameter
- Operations by IR
- Concessionaire's **user fee equivalent to 50%** of the apportioned freight, annual escalation of revenue
- Concession period 25 years with a traffic review after 20 years to increase or decrease the concession period
- 80% Projected Revenue Guaranteed
- Sharing of Revenue beyond 120%

Station redevelopment through PPP

- ***Scheme approved by the Union Cabinet***
  - Developing *over 400 stations* to international standards with modern facilities & passenger amenities on lines of PPP airports
  - Land and space-rights of station buildings to be leveraged
  - To seek participation of private entities
  - Over Rs. 1 lakh crore of investment expected in next four years
- Technology collaboration with foreign railways for development of world class terminals

Rolling stock

IRFC Funding

- IRFC borrowing arm of Indian Railways
- Leases assets to MOR
- Borrowing targets provided in the Budget
- Charges a margin of 0.5% over the average borrowing rate in a year

IRFC Funding (contd.)

IRFC's Borrowing Plan (2015-16)

Target (Rs. Crore)		Borrowing Sources (Rs. Crore)	
Ministry of Railways	17,276.00	Tax Free Bonds	6,000.00
RVNL	379.00	INR Offshore Bonds	2,500.00
Total	17,655.00	Taxable Bonds & Term Loans	9,155.00
		Total	17,655.00
Projects (LIC Funding)	*17,134.00*	*Institutional Finance (LIC)*	*17,134.00*

Private participation in Container Sector

- Private Operators permitted in 2006
- Container Growth around 12.8% since opening
- 17 operators apart from CONCOR
- New Operators have procured 128 rakes and developed 14 terminals with investment of approx Rs 5246 crore
- CONCOR owns 249 rakes and 63 terminals and have invested approx US $ 1 billion since opening of sector.

Cost sharing

JOINT VENTURES

State JVs

- Proposed with 17 States
- IR to have upto 49% share
- viable projects to be taken up
- Unviable projects to be provided grant/free land by State Government to make it viable
- projects to be executed through SPVs
- Land to be owned by SPVs
- To be governed through a concession agreement

We are working on…….

- Setting up RIDF
- Setting up a holding company for all Railway PSUs
- Assigning projects to PSUs
- Signing MOUs with State Governments
- Station redevelopment through PPP
- High Speed Rail financing through JBIC
- Financing traffic facility works through EBR-IF

Thank you

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Features of PPP Projects

- **PPP infrastructure projects involve**:
  - Generally project to be developed on public land
  - private funds for public projects
  - rights and obligations governed by long term agreement
  - private control of monopolistic services
  - delegation of Government authority for recovery of user charges
  - sharing of risks
  - protection of user interests and securing value for public money over lifecycle of the project

Conventional vs. PPP Procurement

Traditional procurement:

- Government bears construction related risks
- Does not account for risks adequately leading to time and cost overruns
- Input-based specifications
- No funds for maintenance
- Declining service levels over a period of time
- Leakages in revenue

PPP procurement:

- Private party bears construction related risks
- Output based specifications
- Private service provider designs, builds, finances, operates and maintains the asset/service