Program for HoDs – F&A Dept
8th August 2016
NAIR , Vadodara

“Emerging role of FA&CAOs in the changing milieu of Indian Railways”

A.Venkateshwar , IRAS ’79
Consultant , Ministry of Railways

In this discussion …..

E X T E R N A L

- *So, what is changing in the IR environment ?*
- *Budget 16-17 – Vision , Missions , Theme , Strategy*
- *Rail Regulatory Authority ….draft concept*
- *LT changes (3-5 yrs) & ST changes (1-3 yrs) in IR*

- *Role of the FA&CAO in the emerging scenario*
- *Attitudinal change in F & A Dept*
- *Alignment and cascading of goals across orgn.*
- *Dept. spread - Standardized KRAs*

I N T E R N A L

So, what is changing in the IR environment ……

- *Vector / intensity of business operations of the organization.*
- *Impact of social media on performance delivery.*
- *Competency levels and skill sets of personnel.*
- *Advanced info./data processing / convergent technologies .*
- *Increasing need for data warehousing / mining / analytics*
- *Increasing demands arising from public awareness.*
- *Evolving need for regulatory environment .*
- *Benchmarking / adoption of best practices (our Joneses !).*

Vision for Indian Railways

ver 2016

" By 2020, (8) long-felt desires of the common man to be fulfilled -

- *reserved accommodation on trains available on demand,*
- *time tabled freight trains,*
- *high end technology to improve safety record,*
- *elimination of all unmanned level crossings ,*
- *improved punctuality (95%) ,*
- *higher average speed of trains - 50 (g) / 80 (p) kmph*
- *semi high speed trains running on the golden quadrilateral,*
- *zero direct discharge of human waste."*

Mission Mode activities in next 5 Years

- *Mission 25 T - 10- 20% on 25T in 16-17 to 70% in 19-20*
- *Mission Zero accident – in 3 yrs no LCs (BG) ; 100% TCAS*
- *Mission PACE - Procurement & Consumption Efficiency*
- *Mission Raftaar – 2x – goods ; +25 kmph - M/E in 5 yrs*
- *Mission Hundred - 100 sidings in 2 yrs (85% share)*
- *Mission Capacity utilization - post DFC blueprint*
- *Mission beyond book keeping - Accrual Accounting*

(Right accounting --> costing --> pricing --> outcomes)

Theme of the Railway Budget 16-17

- *Overcoming challenges - (IR's share in freight traffic has dropped to 36% from 62% (1980-2012)*
- *"Reorganize, Restructure Rejuvenate IR"*
- *' Chalo, Milkar Kuch Naya Karen' -*

Cooperation , Collaboration , Creativity and Communication

Long term Strategy

- *Nav Arjan – New revenues*

  - *non convt . freight policies , monetizing assets –software , stations , PUs , PSUs*

- *Nav Manak – New norms*

  - *KRAs , data analytics, outcome budgeting , perf. costing)*

- *Nav Sanrachna – New Structures*

  - *RDA , reorg RB , RPIO , HoldCo , SRESTHA , SUTRA , Innovation / Start Up Hubs ;*

  (Rail Development Authority ; Rly Plg and Investment . Orgn. ;

  Spl. Rly Estb.for Strategic Tech. & Holistic Advancement ,

  Spl. Unit for *Transp. Research and Analytics)*

Rail Development Authority of India (draft concept)..

- *MR's Budget Speech - "It is now proposed to set up a mechanism, which will be entrusted with making regulations, setting performance standards and determining tariffs. It will also adjudicate on disputes among licensees/private partners and the Ministry, subject to review in appeal".*
- *Phase I – Independent dispute resolution body for SPVs ,Concessionaires PPP players)*
- *Phase II – Determine tariffs (cost structure , productivity , subsidy support , market forces , RRT) ; promote private investments (thru licenses , level playing field , penalties ,transparency in regulation) ; set service / performance standards;*
- *Phase III – May cover Safety & Claims and subsume CRS , RCTs*
- *Regulator will NOT - make policy , execute projects / oversee operations ; propose budgets / manage expenditure , set safety and technical standards*

LT Changes in IR (next 3-5 yrs) ... Rail Regulator

ISSUE	IMPACT on IR	SKILLS reqd for FA&CAOs
Licensed business environment	*Commitment to perform as required*	*Governance ; regulatory law ; will to comply ;*
Competition between multiple players	*Pricing strategies Viability of operations*	*Perf. Costing , Risk Mgmt for sustaining growth ; innovation*
Regulatory budgeting / accounting	*Transparency ; stakeholder focus*	*Market research ; innovative financing ; compliance systems*
Setting performance standards	*Customer focus ; process control*	*Benchmarking ; Internal Audit ; Review /Monitoring mechanisms*
Efficiency gains	*Resource optimization*	*Data analytics ;productivity tests*
Accounting reforms	*"Truer & fairer" picture*	*Commercial accounting principles ; OB and PC**

* Outcome Budgeting & Performance Costing

ST changes in IR…(next 1-3 yrs)… ……honing financial skills of FA&CAOs

- *Accounting reforms –*
  - *Cash to Accrual accounting (we vs they)*
  - *Outcome Budgeting (understand the business)*
  - *Performance Costing (design and delivery)*
- *Institutional Funding (LIC loan)*
  - *to help decongest network , increase throughput , generate internal resources ; (but better project monitoring to be done @ IT)*
- *Domestic / FD / PPP Investment in Railways*
  - *due diligence as per sectoral & DIPP guidelines*
  - *Project Feasibility Report - "involved " vetting*
  - *RFQ , RFP , CA based on models of RB*
  - *Bid process management*

Emerging role of the FA&CAO ..."Entrp. Risk Mgmt."

- *"Chief Risk Officer"*

  - Risk identification , prioritization. , mitigation , review

- *"Internal Auditor" (as against internal check)*

  - less of transaction audit (thru more of IT based systems
  - more of processes , risk impact , process improvements

- *"Process Facilitator / System Designer"*

  - help in formulation and testing of processes / systems for risk mitigation / risk transfer.

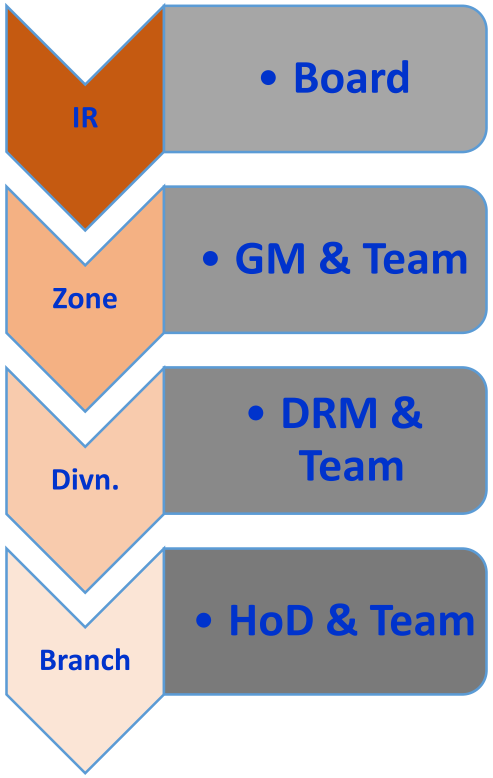
Attitudinal change in F & A .....

- *From "Concurring" to "Facilitating"*
- *From " Evaluating " to "Enabling".*
- *From "Compiling / Reporting" to "Reviewing / Analyzing" .*
- *From "Reactive" Supporting to "Proactive" Proposing*
- *From "What can I do ?" to " I can help in doing it"*

- *Growing concern amongst executives of the relevance of the F&A Dept.*
- *Likelihood of restructuring railway management*

Alignment & Cascading of goals and outcomes

Action Planning / Goal Setting essentials



Departmental spread – need for alignment

- *Current Vertical Heirarchy – 3 administrative levels*

  in each zone - HAG – SAG – SG/JAG

- *Current Horizontal Spread – 17 Zones ; 6 PUs , 5 Others ; approx . 68 divisions ; 45 workshops ; 18 Constn orgn.*

- *Functional spread – 5-7 categories at SAG / JAG levels*

  - Admn & Estb. ; PF & Pension ; Finance , Exp. ; Books & Budget ; Cash & Pay ; Traffic ; W&S ; Constn ;

- *Need to bring more clarity to "role and responsibility"*

- *Need to bring in appropriate alignment , both H & V.*

- *Service level agreements to be built up with the executive.*

Standardization of Role / Post based KRAs :

- *At least six key result areas (KRAs) in each role / post may be standardized with defined PI and UoM.*
- *These KRAs must be aligned with the Dept goals and facilitate correlation of physical and financial measures .*
- *These six KRAs may constitute about 50% of the self assessment part of the ACR of each incumbent of the post across the Railways.*
- *Eg. FACAO/T of all zones may have the same KRAs but targets /initiatives / action plan to meet them , may vary.*
- *Target setting (how much) and initiatives (how) to achieve the target can be agreed by appraise & appraiser.*

Thank You

GST
For Indian Railways

By:
Sushil Solanki
Principal Commissioner of Service Tax (Rtd.)
TLC Legal

Contents

- Current Model of Indirect tax laws and their distortions
- Key features of Model GST Law
- Procedural aspects of the Model GST Law
- GST Council and GST Network
- Implications for Railways
- Points of Advocacy

Challenges of current indirect tax structure

Inter-State movement of goods

- CST credit not available
- Uneconomic activities like opening of branches to save CST, Purchase from within state
- Plethora of forms required for movement of goods within State, Inter State, through State

Multiplicity of Indirect Taxes

- Dispute about taxability or taxing under more than one law (Manufacture, Computer Software, Leasing)
- Compliance under various laws.

Cascading Taxation

- VAT on Excise Duty
- VAT & SAD Credit not available to service providers
- Service Tax Credit not available to traders

No set-off, no Invoice-Parallel Economy

Key Features of GST- 1

- Most Indirect Taxes subsumed into GST
- Destination based taxation
- **Dual GST (CGST & SGST) {Additional power to levy GST on services to States & taxes on sales to Centre}:**
  - Both Centre and State to levy GST on intra-state supply of goods &services
- **Integrated GST (IGST) [CGST + SGST]:**
  - On inter-state supplies of goods & services
  - On Inter-state branch transfer of goods & services
  - On import of goods & services
- Additional 1% origin based tax on inter-state supplies of goods (?)

Key Features of GST -2

- Credit of IGST allowed to dealer in buying State
- Exempted goods / services – common list for CGST & SGST
- C/F/H forms likely to be abolished because of levy of IGST.
- Multiple statutes with similar provisions – one for Centre & separately for every State
- Assessment both by Center & State
- Balance of CENVAT credit & VAT credit as per last return filed is allowed to be carried forward in GST.

Registration, Returns & Other Processes

- State wise registration - Business Vertical-wise registration allowed- J&K
- ISD registration required to distribute Tax credit on Common services from one State to other
- Common GST Return for CGST, SGST, IGST, ADDL TAX
- Common e-payment facilities for all taxes
- Annual Return for each State for comparison with Financial Records
- Annual Audit Report for each State

Returns under GST

- By 10^{th} of each month, details of all B2B sales invoices to be uploaded
- By 15^{th}, input tax credit availment statement to be filed electronically
- ITC availment statement to be prepared based upon credit available as per return filed by supplier
- By 20^{th}, common Return for CGST, SGST & IGST
- Unless taxes are paid, Returns cannot be filed
- If GST not paid or Return not filed by seller, tax credit cannot be taken by buyer
- Rating and blacklisting of dealers

Receipt of Common Services and Registration as ISD

- In case of common services (IT Services) procured at centralised place but used in more than one state, ISD (Input Service distributor) registration required to be taken.
- Transfer of credit from ISD to other States.
- If services meant for specific States, the credit to be transferred on actual basis.
- ITC for common services used in more than one State, to be proportionately distributed based upon turnover of previous year.

INPUT TAX CREDIT- Scope & Issues

- ITC allowed on goods used in the course or furtherance of business- concept of nexus (used in relation to) removed
- Exclusions for motor vehicle & personal consumption of employees continued
- Goods/services used in the execution of works contract for immovable property excluded- present VAT laws permit credit
- Credit availment subject to payment of tax & filing of returns by the supplier

INPUT TAX CREDIT- Scope & Issues

- If credit availment by supplier in dispute- buyer's availment can be challenged
- Condition of receipt of Goods or Service to avail credit- prone to litigation- advance payment chargeable to tax but ITC may be denied
- Time limit to take credit- Till filing of return for September month in the next year

POSSIBLE GST RATES ??

Rate of Tax	Category
0%	Exports, deemed exports, exempted goods/services
Minimal (2% to 6% ?)	Precious Metals/ Stones/ Articles- Gold, Silver, Diamonds…
Merit (9% to 11% ?)	Key industrial/economic goods- coal, steel, base metals, few services
Standard (18% to 22% ?)	All other goods & services
Rate Deviation upto 2% for SGST may be permitted to States	
Common Threshold limit for CGST & SGST of Rs.10 lakhs (Proposed by Centre : Rs.25 lakhs)	
Compounding scheme for taxpayer upto the turnover of Rs. 50 lakhs	

Integrated Goods and Service Tax (IGST)- Main Features

- In sub-national taxation, determining the place of supply is important as tax revenue accrues to the destination/consuming State based on **Place of Supply Rules.**
- In case of utilization of CGST/SGST credit for payment of IGST or vice-versa, amount would be transferred from Centre to State/State to Centre through Clearing House Mechanism.
- It would basically meet the objective of providing seamless credit chain to taxpayer located across States.

Utilization of Credits under GST Regime

- SGST
  - SGST
  - IGST
- CGST
  - CGST
  - IGST
- IGST
  - IGST
  - CGST/ SGST

Constitutional Provision - GST COUNCIL (GSTC)

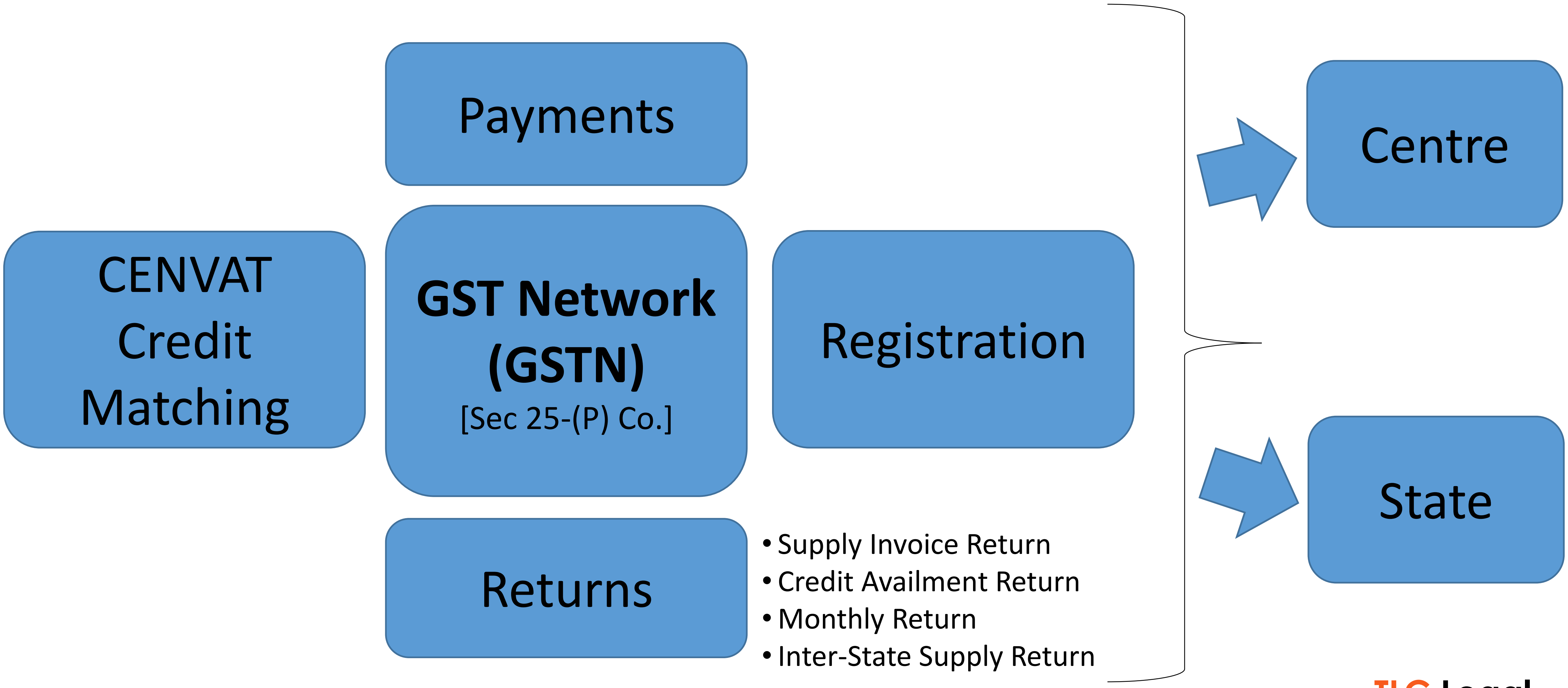
- Consisting of Union FM, Union MOS (Revenue) and State Finance Ministers.
- Union Finance Minister as Chairperson
- Vice Chairperson from States
- Weightage for votes provided.
- Decision by majority of 75% of weighted votes of members present and voting.

Functions of GST COUNCIL

- Council to make recommendations on
  - Taxes to be subsumed in GST
  - Exemptions & thresholds
  - GST rates
  - Band of GST rates
  - Model GST Law & procedures
  - Special provisions for certain special States like North East, J &K, HP, Uttrakhand
  - Date from which GST would be levied on petroleum & related products

GST NETWORK (GSTN):

A portal for providing core services across the country



GST : PERCEIVED BENEFITS – To Taxpayers

- ►Reduction in multiplicity of taxes
- ►Simpler tax regime:
  - ►Fewer rates and exemptions
  - ►Conceptual clarity
  - ► (Goods vs. Services)
- ►Mitigation of cascading effects as credit for inter-state taxes and all taxes paid on goods/services allowed as credit
- ►Development of common national market
- ►Efficient use of Resources & Economy of scale
- ►More efficient neutralization of taxes especially for exports
- ►Common Return for all GST's and common law for all states

GST : PERCEIVED BENEFITS

- To Government
  - Expected GDP growth by increase in economic activities and efficient use of resources
  - Simpler Tax system
  - Broadening of Tax base
  - Improved compliance & revenue collections
  - Ease of Administration with enhanced technical framework
- To Consumer
  - Transparency as total taxes paid available in invoice
  - Total Tax burden to reduce

GST Current Status

GST 2015

Passage of Revised GST Constitutional Amendment Bill in Lower House on 06.05.15

The Bill presented in Upper House on 12.05.15

Bill referred to Select Committee

Select Committee report submitted on 22.07.15

GST 2016

GST Model Law placed in Public Domain on 14.06.16

CAB in Rajya Sabha passed on 03.08.16

Passage of GST CAB by 50% of States expected in the next 1 month

Formation of GST Council

Placing of Draft Rules in public domain by Sept, 2016

Revised GST Laws & Rules in public domain by Oct, 2016

GST 2017

GST Network (GSTN) expected to be ready for trial runs by January, 2017

Passage of CGST and IGST Acts in winter/special session in Dec-Jan and assent by President

Registration process during March, 2017 (?)

GST Implementation by April 2017 (?)

Current Law

Taxability under Service Tax:

1. Transportation of goods or passengers (Section 66D(iii))
2. Any service provided to business entity (Section 66D(iv))

Liability for payment of tax by Railway:

1. Renting of immovable property
2. Transportation of goods or passengers

- All other services – tax to be paid by recipient on **reverse charge** basis (Notification No. 30/2012)
- Services from foreign service provider – to be paid by Rlys on reverce charge

Definition of Renting (Section 65B(41))

- “Renting” means:
  - allowing, permitting or granting
  - access, entry, occupation, use or any such facility,
  - wholly or partly,
  - In an immovable property,
  - with or without the transfer of possession or control of the said immovable property
  - and includes letting, leasing licensing or other similar arrangements
  - In respect of immovable property

Under GST: Place of Supply -1

(Purpose is to determine whether service has been provided within the State or outside the State to decide payment of SGST or IGST)

General Rule:

- Supplied to registered person – location of such person
- Supplied to unregistered person – location of such person as per records (if exist) – else, location of supplier
  - Space for advertisement
  - Terminal Services
  - Goods Handling Services
  - Luggage Handling Services
  - License fee from private entities

Place of Supply of Services - 2

- For transportation of **goods**:
  - To a GST registered person - Location of such person
  - Other than registered person- Place where goods are handed over for transportation
- Transportation of **passengers**:
  - To a GST registered person - Location of such person
  - To other than registered person – Place of embarkation
- Supply of services **on-board** a conveyance :
  - Location of first scheduled departure- Serving of food in the train

Place of Supply of Services - 3

- Services in relation to immovable property
  - Location of the property is determining factor for payment of tax as SGST or IGST

  E.g. Renting or grant of right to use

  Right of way for laying telecom cable, wayle,

  vehicle parking,

  leasing of land,

  renting of rooms.

GST issues relating to railways

- State-wise registration – requirement of maintenance of State-wise financial records for Annual Return & Audit report
- Determine whether an Income is liable for SGST or IGST
- Monthly return filing in each State
- ISD registration to distribute credit to other states
- Uploading of outward service invoices on monthly basis
- Positive Impact- availability of credit on taxes (VAT & Excise Duty) paid on purchase of materials

Action points

- State wise registration
- Feedback from customers, whether they want to avail Tax Credit – if yes, their GST number to be captured in the system
- Prepare for transitional matters
- System Changes
    - To capture GST Registration No. of customer
    - To develop logic for every invoice to be treated as SGST (within state) or IGST (inter-state) supply
    - Uploading of invoices every month
    - Availing credit based on supply returns
    - State wise financial records, in case of State wise registration

TLC Legal

Point for advocacy

- Centralized Registration

- Continuation of Reverse Charge liability for services provided to business entity

- Uploading of monthly customer-wise invoices

QUESTION-ANSWER TIME

THANK YOU..

FUEL MANAGEMENT

New Financial Initiatives

-Arun Bijalwan,EDF

Supply Chain Management

- Indian Railways consumes approx 2500000 MT HSD per annum
- Total number of RCDs provided by OMCs-258
- IOC-198,BPCL-47,HPCL-13
- Mode of supplies: by Rail-18.5%,by Road-80.5% &by pipeline-1%

Throughput at RCDs(IOCL)

Vol.KL/month	<500	501-1000	1001-2000	>2000
No of RCDs(198)	67(33.4%)	56(28.3%)	49(24.7%)	26(13.1%)
RCD Volumes (in ThMT)	178(8.2%)	414(19.0%)	712(32.7%)	874(40.1%)

Procurement and Consumption of HSD in 2015-16						
					Figures in Crores of Rs.	
	Consumption		Procurement		Variation	
	Rs in Cr.	KL	Rs in Cr.	KL	Rs in Cr.	KL
1	2	3	4	5	6	7
April	883.13		1149	225404	265.87	
May	871.15		1188	229205	316.85	
June	245.72		1409	258857	1163.28	
July	753.62		1560	294067	806.38	
August	720.11		1459	299487	738.89	
Total	**3473.73**	**828636**	**6765**	**1307020**	**3291.27**	**478384**
Per Day	**22.7**	**5415.92**	**44.22**	**8542.61**	**21.51**	**3126.69**

Average daily consumption (Rs. in Crore and KL)	22.7	5415.92
Procurement done for no. of days (Rs. and KL)	297.96	241.33
No. of days in the consumption period under review	153	153
Procurement in excess of Consumption days(Rs. and KL)	145	88
%age of excess procurement over consumption days (Rs. & KL)	95%	58%

Initiatives taken to reduce Inventory of HSD

- The inventory level reduced to 5-7 days in most RCDs/RDIs.
- CME, COS and FA&CAO reviewed and decided target inventory levels by November 2015
- Supply to RDIs reduced in staggered manner and exercise was completed by 31.1.2016
- Railway Board has issued instruction to General Managers for further review inventory level of those RCDs >7days

Savings Achieved

Railways	Savings achieved during 2015-16(in Cr.)
CR	11.55
ER	10.59
ECR	21.51
ECoR	21.90
NR	8.09
NCR	5.70
NER	8.08
NFR	8.96
NWR	20.56

Savings Achieved

Railways	Savings achieved during 2015-16(in Cr.)
SR	11.59
SCR	39.18
SER	3.54
SECR	0.94
SWR	27.42
WR	9.77
WCR	7.04
TOTAL	216.42

FC’s observations

- Fuel holding pattern of RCDs require serious analysis
- There may be mismatch between storage capacity of RCDs and BTPN rake capacity over the Railway, resulting in delay in decantation and idling of the rake by 8-12 days
- Closure of smaller RCDs and shifting the supply point nearer to larger RCDs or by exploring the feasibility of transportation by road to these RCDs

New Initiatives

- Total Fuel Management
- Alternative methods of procurement of HSD
- Prevent leakages in RCDs
- Rationalization of manpower in RCDs
- Development of Fuel Management System through CRIS.

Total Fuel Management

- A pilot project at JP/NWR
- M/s BPCL has offered to undertake this project
- M/s BPCL has proposed to set up 290KL RDI in addition to 400KL RDI operated by M/s IOCL
- Under this system, the entire management and manning would be done by OMC.
- IOCL is also being approached to take up TFM
- WCR is also taking up TFM at Itarsi

Alternative methods of procurement of HSD

- **Crude procurement model**

or

- **High Seas procurement model**

Crude Procurement Model

- Proper procedure needs to be developed for accounting and sales of derivatives
- Permission is required from MOP&NG for sale of derivatives
- Operating cost/refining cost/handling cost of crude for refining and supplying diesel is very important.
- Consultant is being engaged for this project and Joint working Group is formed to expedite the project

Crude Procurement Model

- Procuring crude and booking specific refinery to process that crude as a service
- Discussions are taking place with IOCL, three rounds already over
- As per estimates of IOCL there would be saving of Rs7000/KL if mix crude is processed
- Complex model because of production of other products along with diesel like ATF,Kerosene,LPG etc

High seas procurement model

- Direct import of finished diesel by purchasing at HIGH SEAS
- Permission for import is required(Policy Barrier),huge refining capacity available
- Custom formalities
- Storage and handling cost
- Less complex than previous model

Fuel Management system

- Elimination of oil wastage and to avoid any possible oil pilferage
- Computerized monitoring and reporting
- Overfill detection
- Accurate measurement and reporting

Electrical Energy

Challenges & Initiatives

Electricity Consumption in IR – Key Statistics

- **Electricity Consumption pa- 18 billion units (about 1.8% of the country's generation).**

  - 15.5 BUs for traction

  - 2.5 BUs for non-traction

  - 2000 MW average requirement

- **Total annual electricity bill – Rs 12,400 Cr**

  (Rs.10,600 Cr. for traction & Rs. 1,800 Cr. for non-traction)

- **Average cost of power- Rs 6.75 per unit**

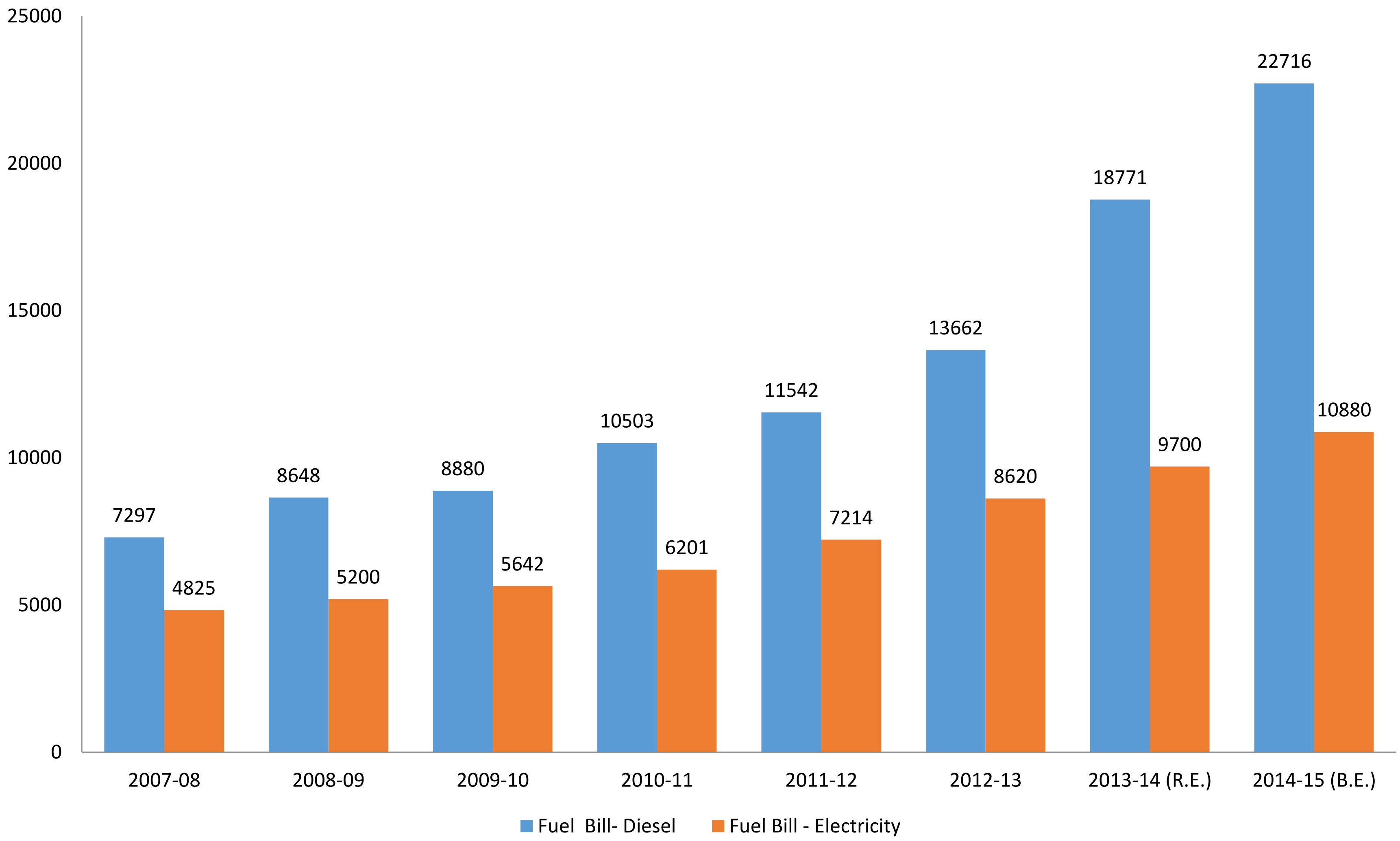
  (Ranging from Rs 4.00 to Rs 9.00 per unit).

- **Average growth rate – 4-5% per annum**

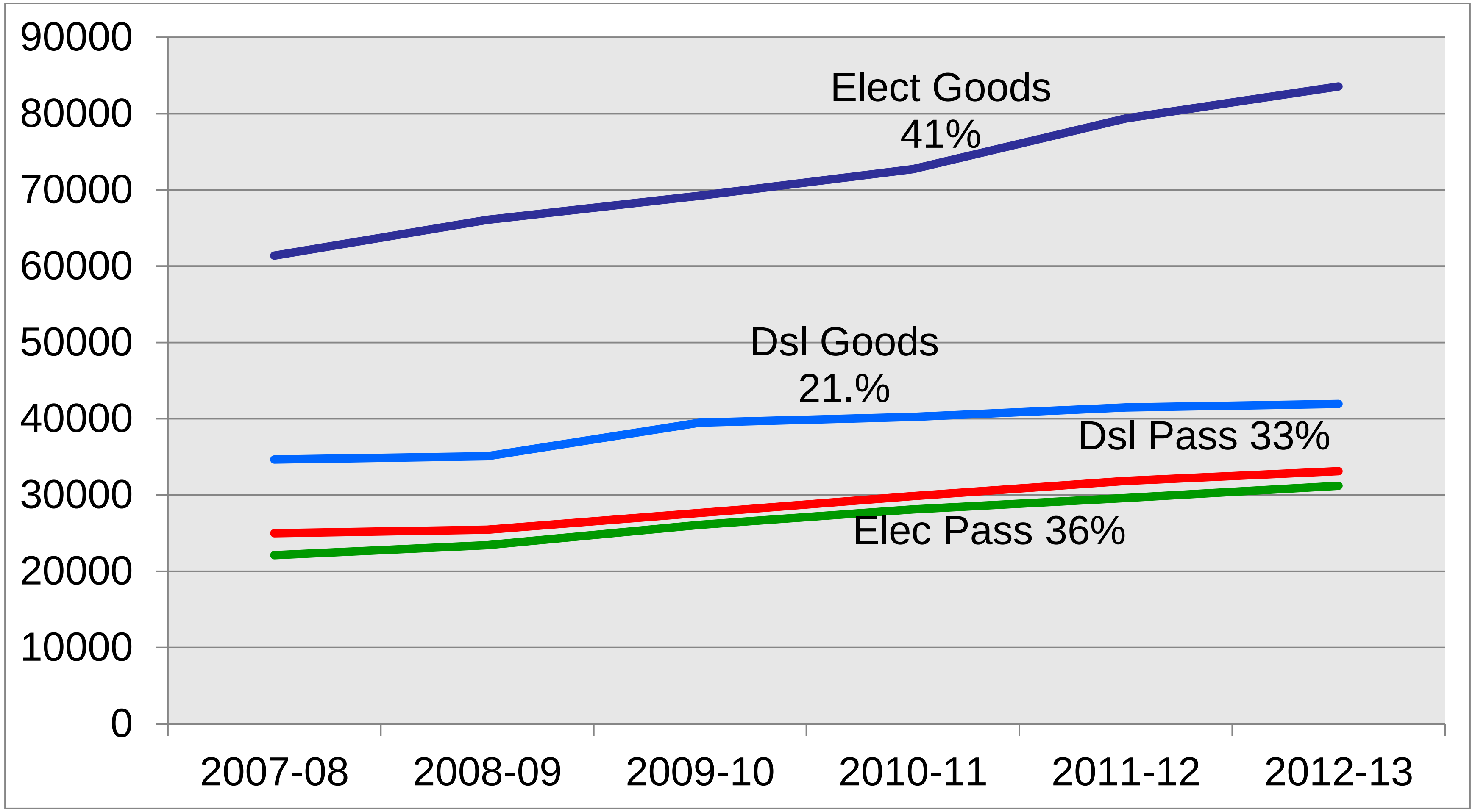
Growth of Fuel Bill for Indian Railways

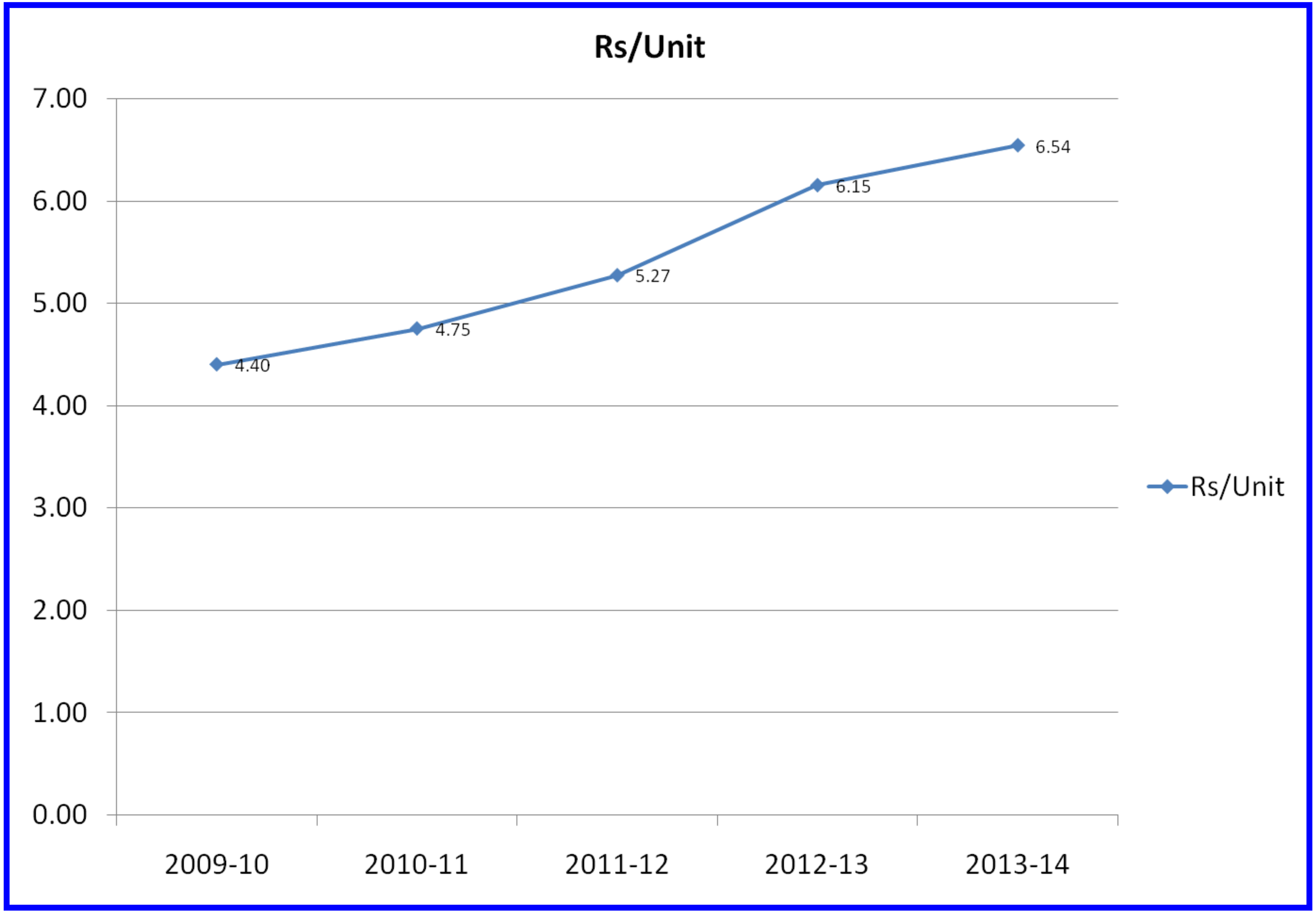
YEAR	Expenditure on Power (Electricity)	Expenditure on Fuel (Diesel)	**Total**
2009-10	5655	8922	**14577**
2010-11	6206	10556	**16762**
2011-12	7236	11601	**18837**
2012-13	8634	13749	**22383**
2013-14	9650	18875	**28525**
2014-15 (RE)	10968	19226	**30194**

Increase in Fuel Bill



GTKMs Growth (5 Years)




Rs/Unit
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
4.40
4.75
5.27
6.15
6.54
2009-10
2010-11
2011-12
2012-13
2013-14
Rs/Unit

S.No.	Energy Charges (Traction) for 2014-15 (Up to September - 2014 Provisional))			
	DISCOMs	energy consumed (mil Kwh)	Total energy bill paid in Crores.	Average cost Rs/Kwh.
1	2	3	4	5
1	APTRANSCO	709.67	507.68	7.15
2	BSEB	260.77	162.89	6.25
3	CSEB	429.45	239.98	5.59
4	DVB	35.93	28.63	7.97
5	DVC	326.02	124.71	3.83
6	GEB	377.91	241.47	6.39
7	GRIDCO	397.21	243.88	6.14
8	HVPN	167.59	118.84	7.09
9	JSEB	208.82	129.66	6.21
10	KSEB	108.19	58.51	5.41
11	KPTCL	29.36	16.24	5.53
12	MPSEB	969.15	582.49	6.01
13	MSEB	751.99	703.08	9.35
14	TATA	463.71	361.73	7.80
15	NTPC	339.35	223.09	6.57
16	PSEB	81.89	51.59	6.30
17	RSEB	199.45	107.97	5.41
18	TNEB	738.96	508.26	6.88
19	UPPCL	446.71	329.37	7.37
20	WBSEB	407.00	321.05	7.89
21	UPCL	7.04	3.08	4.38
22	CESC	26.96	19	7.05

Directives of Hon’ble Minister - Para 106 of the Budget speech 2015

Although a bulk consumer, Railways pays extremely high charges for traction power. It is proposed to procure power through the bidding process at economical tariff from generating companies, power exchanges, and bilateral arrangements. This initiative is likely to result in substantial savings of at least Rs.3000 crore in next few years.

49.In my Budget Speech last year, I had promised annualized savings of Rs. 3,000 crore to be achieved by the third year. It is about 30% of the total traction supply cost. I am happy to announce that the target will be achieved in the next financial year itself, a year earlier than envisaged. For the first time, IR has leveraged provisions of the Electricity Act to procure power directly at competitive rates, using its status as Deemed Distribution Licensee. Power Procurement Contracts already signed and implemented will mean an annualized saving of Rs. 1,300 crore. Further actions to source power, already initiated, will deliver annualized savings of Rs. 1,700 crore during the coming year, taking the total to Rs. 3,000 crore. In addition, the saving of Rs. 300 crore is being targeted through demand side management and energy efficiency measures.

Possible methods to Reduce the Cost of Power Procurement

1. Indian Railways to migrate from DISCOMs to GENCO

2. Improve efficiency of power utilization

3.Using of regenerative braking and metering of the same

4. Go for Renewable Energy

Methodology for Cost Reduction

- Migrating from DISCOMs to direct procurement.
- Migration methodology
  - .%age of existing traction loads -directly connected to STU (thru railway owned lines) - phased manner - 2015-16 and 2016-17.
  - Future additional loads to be migrated in same ratio.
  - Migration in States only where cost of power is high.
  - The requirement of States (including future requirement) where migration has not been considered shall continue to be met from the existing arrangement.

Power Procurement Process

- Through Competitive Bidding
- Through Bilateral Arrangement
- Through Exchanges trading route
- Allocation by MoP out of their unallocated quota
- Through captive plant

Source of Power:

- Inter state (from outside state)
- Intra state (within state)

Term of procurement:

- Short Term (up to 1 Year)
- Medium Term (1 Year to 5 Years)
- Long Term (more than 7 years to 25 years)

GETTING ELECTRICITY AT ECONOMIC TARIFF

Direct Procurement of power from Generators/ Traders-

- As deemed Distribution licensee IR can now buy power directly from generators/ Traders under Electricity Act 2003.
- For this Open Access has to be obtained. It can be for Short/Medium/Long terms(Section 38, 39 & 42 of Electricity Act 2003)
- Steps for this are:
- Selection of GENCOs/Trader through open bidding/ Bilateral arrangements
- Signing of PPAs /Agreement with GENCOs /Traders

Direct Procurement of power from Generators/ Traders-

- Applying for NOC to SLDCs of generating and consuming states
- SLDC before giving NOC will ensure

  (i) ABT meters at STU and TSS ends

  (ii) Transmission capacity in the state network

  (iii) Valid PPA
- After obtaining NOC from SLDC apply to CTU/PGCIL
- Signing of Agreement with CTU.

Procedure for Issuance of NOC from SLDC for power trading

Step 1:- Agreement between Railway & Client PPA

Step 2:- Submission of Application to SLDC for Approval.

Step 3:- Issuance of Conditional Approval by SLDC.

Step 4:- Procurement of ABT Meter.

Step 5:- Inspection & Testing of ABT Meter by Authorized Agency.

Step 6:- Submission of Application for NOC.

Step 7:- Issuance of NOC By SLDC.

Step 8:- Bidding Start at PX from Next Day.

Cost involved in procurement of power

- Cost of electricity at generator end

  (Rs 4.00/kWh)
- CTU charges including POC charges (injection & drawal- Rs. 0.49), losses(Rs.0.16)
- Wheeling charges of STU differ from state to state

  (Rs 0.35/kWh)

ON GOING INITIATIVES

Action taken So Far to reduce cost of power:

1. **Procurement of 50 MW power for NCR from DVC on STOA from 01.03.15 to 30.11.15**

- **This power has been replaced with the power procured through open bidding**

2. **620 MW of power allocated by MOP from RGPPL plant. (Allocation upto March 2017) in the states of Maharashtra, Gujarat, Jharkhand and MP**

ON GOING INITIATIVES

3. Procurement of 80 MW power in Maharashtra from M/s Tata Power to be taken as distribution licensee.

4. Procuring 585 MW Power for IR on Medium Term basis through Open Comities Bidding:-

- **Western Region-205MW** (Chhattisgarh-70 & MP-135)
- **Northern Region-220MW** (UP-60, Rajasthan-40,Punjab-40,Delhi-15 and Haryana-65)
- **Eastern Region-160 MW** (Bihar-50 & Orissa-110 MW)

5- Work for procurement of power on short term basis in AP-200 MW & Tamil Nadu-120 MW and Telangana-50 MW awarded .

OTHER MEASURES TO REDUCE ELECTRIC TRACTION BILL

- Take up Construction of Transmission lines-
- Work on Transmission corridors for Railways between CNB ALD MGS in progress for having connectivity with PGCIL
- Work for Transmission line from Sahibabad to Diwana is under progress
- This will facilitate in wheeling of power without involvement of state transmission network at a lower cost.
- Have Captive Power plants
- **Take up matter with State Regulatory bodies**

Saving for FY 15-16

Allocation/Source		State	Qntm. (MW)	Annual Consm. (MUs)	Discom Rate (Rs./kWh)	Rate tied by REMCL (Rs./kWh)	Actual saving Rs. Crore	Annualized Saving Crore
Bilateral	DVC w.e.f March 15	UP	50	438	6.57	4.25	120	120
Open Bidding	Adani w.e.f Dec. 15	UP	50	438	6.57	3.69		
MOP	RGPPL w.e.f Dec.15	MP, Maha., Gujarat, Jharkhand	530	4642	6.67	4.7	350	1000
Bilateral	TATA w.e.f Feb.16	Maharashtra	80	528	8.30	4.68	20	190
Total (Say)							**500**	**1300**

Anticipated Saving for FY 16-17

Allocation/Source		State	Qntm (MW)	Annual Consm. (MUs)	Discom Rate (Rs./kWh)	Rate tied by REMCL (Rs./kWh)	Annualized Saving Rs. Crore
MOP	RGPPL	MP, Maharashtra, Gujarat, Jharkhand	530	4696	6.48	4.7	1000
	DVC	West Bengal	50	PPA signed Open Access awaited			
Bilateral	TATA	Maharashtra	80	528	8.30	4.68	190
Open Bidding	Adani	UP	50	438	6.57	3.69	120
	JITPL*	UP, Punjab, Haryana, Delhi,Rajasthan,MP,Chhattisgarh,Bihar,Orissa	585	3521	6.46	3.65	800
	M/s PTC* and M/s GMR* Energy Trading ltd.	AP, Kerala, Tamil Nadu, Telangana, karnatka	370	Bid has been invited on Short and Medium Term Basis (saving Considering Rs. 1.5 pu)			450
	Total (say)						**2635**

*** Selected Bidder through Open Bidding. Annualized saving after commencement of Power after getting Open Access.**

Actionable points Electrical loco

- Line haul cost of Electric traction is 44% less than diesel, hence optimize running of Electric locos in electrified territories.

	Freight				*Coaching*			
Year	2008-09	2009-10	2010-11	2011-12	*2008-09*	***2009-10***	***2010-11***	***2011-12***
DSL	169.87	158.6	165.37	176.47	*251.49*	***239.31***	***269.72***	***275.22***
Elect.	89.99	90.55	97.24	98.75	*165*	***128.16***	***143.55***	***157.52***
%age Cheaper	47.0	42.9	41.2	44.0	*34.39*	***46.45***	***46.78***	***42.77***

- More than 10 % Freight trains and more than 500 coaching trains run on Diesel under wire. Trains for change of traction from Dsl to Electric can be identified based on kms under wire, availability of crew/loco changing facilities at Zonal Railways level by constituting a committee comprising of officers of Traffic, Electrical and Mechanical departments.
- 3-Phase locos re-generate on an average 15 % of energy consumed.
- More three phase energy efficient electric locomotives having regenerative braking feature are being manufactured and inducted. Plan to complete switch over from 2015-16.

Production up to 2009-10	2010-11	2011-12	2012-13	2013-14 up to Feb 2014	Production in last 4 years
320	70	76	110	128	384

Railway wise OHE assets

SN	Railways	TKM	TSS
1	CR	5361	73
2	ER	4204	19
3	ECR	4567	27
4	ECoR	3723	35
5	NR	5543	29
6	NCR	4388	40
7	SR	5052	34
8	SCR	5926	39
9	SER	5786	33
10	SECR	3607	22
11	SWR	490	3
12	WR	4107	31
13	WCR	3752	25
14	Metro	72	4
Total		56578	414

Projected Traction Power Cost in 2016-17

- Projected traction bill for the year2015-16=
  Rs 10300 Cr
- Increase due to additional load@5% over last year= Rs 525 Cr
- Likely bill for 2016-17= Rs 10825 Cr
- Projected savings in 2016-17= Rs1000 Cr due to various initiatives
- Projected bill for 2016-17= Rs 9825 Cr

Railway’s Transmission Network

- In the areas where railways have its own transmission network-Price of power has come down to Rs 3.70 per unit against the average value of Rs 6.75 per unit
- Railway will be free from seeking any NOC from states
- Additional savings on the STU charges of about 50-70 paisa per unit
- Railways consumption for all centers can be clubbed

Board’s directives

- Vetting of PPAs on priority
- Making necessary arrangement for Availability Based Tariff
- Get NOC from state governments on priority
- Review Contract Demand(CD) in the light of merging of TSS demands and projected change in traffic pattern

Future Scenario- 2030

1. Present Power consumption is about 4000 MW.
2. By 2030 -

- With almost 100% electrification of present rail network,
- DFCCIL network of at least 7000 RKM,
- Some new high speed (350 Kmph) corridors,
- Few tracks upgraded to 160 to 200 Kmph and
- With total loading of about 5-6 billion metric tonnes (as per projection of National Transport Development Policy Committee for 2032), the total power requirement on Indian Railways will be about 20000 MW.

Future Scenario- 2030

- For sustainable economic growth this power should be made available to Railways at a competitive cost
- To ensure reliability Railways to have connectivity with CTU networks.
- CTU to build complete transmission network of about 20000 Kms for Railways
- Railways to Plan for a judicious mix of renewable and thermal power.

Long Term Planning-FC's directives

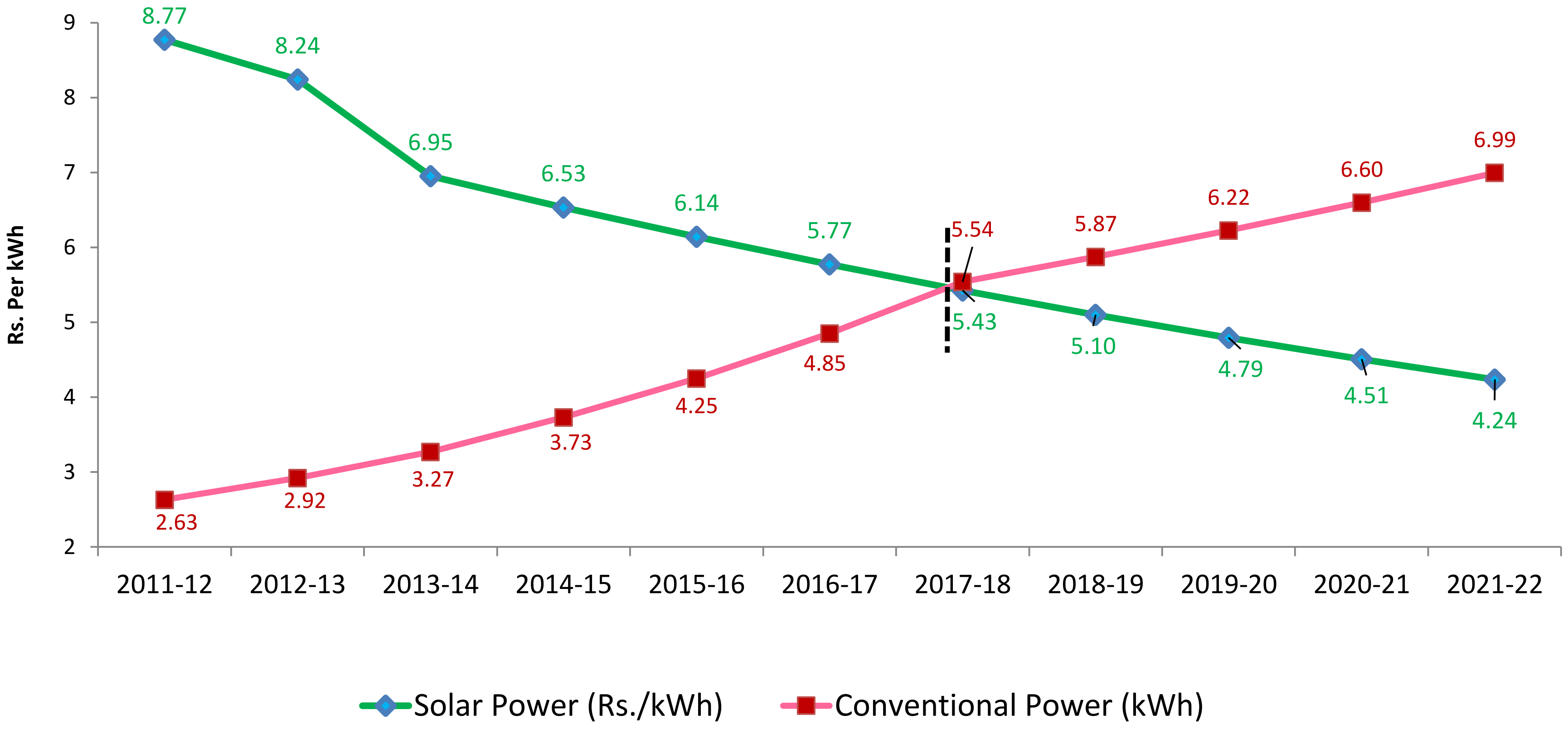
- Railway as deemed licensee should develop necessary infrastructure to avail cheaper power from the market.
- To create infrastructure will require huge resources,JV route between IR and PGCCIL be explored to construct and maintain transmission lines
- DFCCIL too should be brought into this transmission network to take benefit of cheaper power,by developing synergy between power networks of Railways and DFCCIL both on eastern and western corridors

Long Term Planning

- In WDFCL ph-1 DFC entered into arrangement with state DISCOM and STU for power procurement and evacuation-DFC has been asked to review this because open access is denied under this arrangement
- DFC is working on that. Apart from that DFC and Railway will club their TSSs to reduce cost
- In WDFCL ph-2 DFC planned a transmission line constructed by PGCCIL and the same will also be used by Railway

Renewable Energy

Cost-comparison of Solar Power



- Price of solar power has come down from Rs 17.91/kWh in 2010 to under Rs 6.5 /kWh now.

Solar power will achieve grid parity within the next 3 years

Solar Photovoltaic based electricity generation in Indian Railways- **Aim:**

- **To take benefit of reduced costs**
- **To fulfill renewal targets**
- **Use free railway rooftop and land spaces**
- **Explore new potential areas- Using Rly land parallel to Tracks**
    - **For 100 MW of solar power lifetime GHG emissions reduction of 5,201,000 tones of CO_2**

Key elements and challenges

- **Developing technically feasible model-**

  Types of roof tops

  Land Patches- Sizes

- **Address Grid connectivity issues**
- **Take benefit of net metering and banking**

  State policies differ

- **Address connectivity issues**
- **Address maintenance issues**

Action Taken

REMCL on behalf of IR has also planned to harness Renewable energy sources:

- **26 MW Wind Mill plant in Jaisalmer Rajasthan commissioned in Oct'2015 (owned by REMCL) with financing in debt: equity ratio of 80:20.**

Salient Features:-

- **Cost:** 151.45 Crore
- **Financing:** 51% of equity by RITES & 49% of equity by IR
- **Capacity:** 26 MW,13 Machines of each 2 MW capacity.
- **Expected Generation:** 5 Crore units (approx.) per annum
- **Pooling station of Inox Wind Limited, the developer - at** Dangri Village.
- **Power Utilization –** At 3 Traction sub -tations (TSS) of Kota Section on Delhi Mumbai Trunk Route.

Thank You

धन्यवाद

ACCOUNTING REFORMS
DEPRECIATION POLICY
e-ASSET REGISTER

Raj Kumar Manocha
FA&CAO/B&B/NR

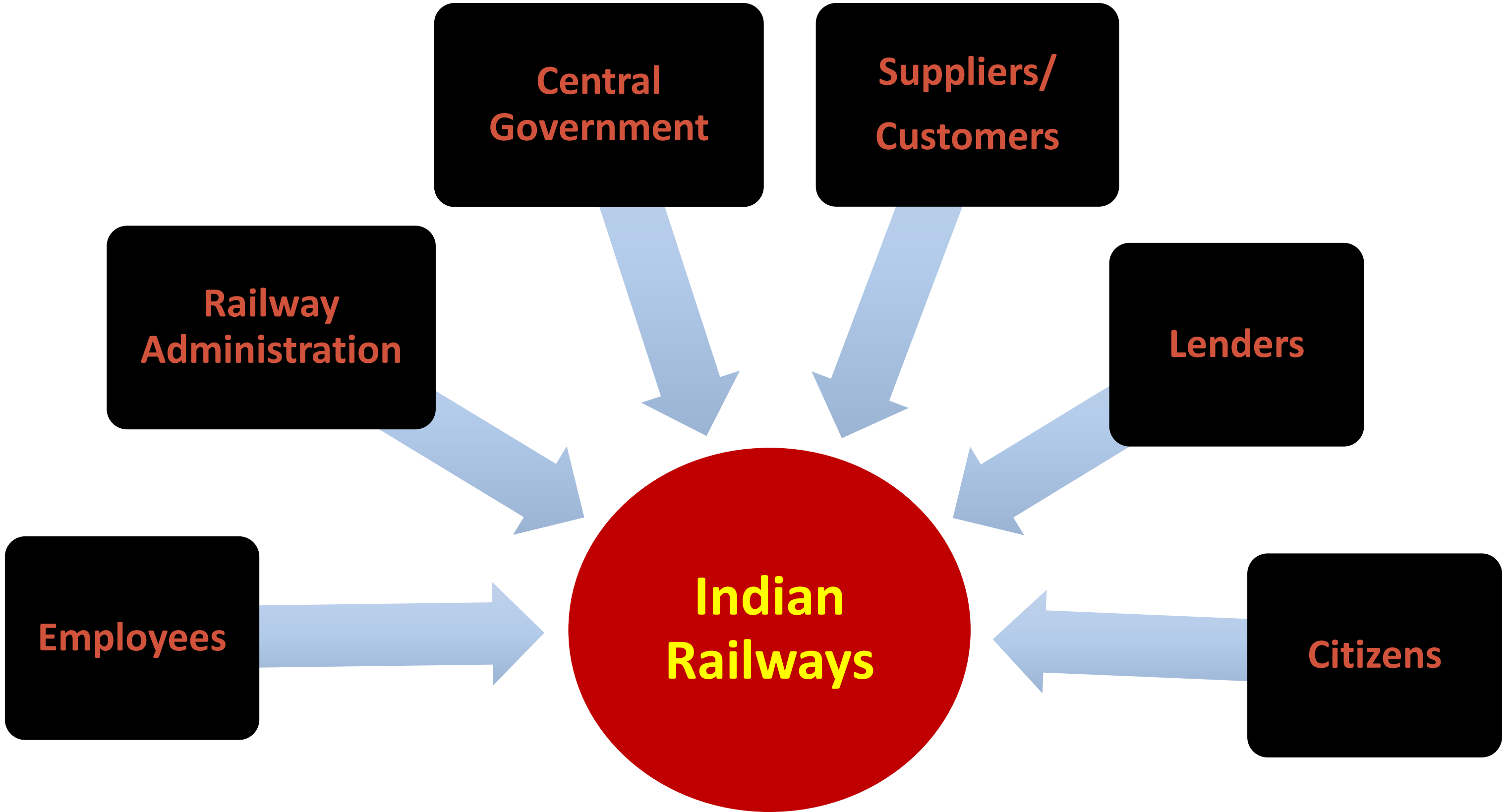
"I just wanted to be a businessman, and to me the best way to understand business was to be an accountant."

-Aubrey McClendon

Accounting is a the language of business.

The beauty of language lies in correct ,true and fair communication of Financial information to intended Users, readers and Stakeholders.

Stakeholders in Indian Railways



Accounting System

- **Types of Accounting Systems**
  - **Cash Based**
  - **Modified Cash Based**
  - **Accrual Based – Double accounting system**
- **Each system of accounting has its merits and demerits.**
- **Accrual system has its inherent strengths of holistic and true and fair reporting**
  - **Accrual system**
  - **Increasingly adopted across the globe by**
    - **Business organizations**
    - **Economic bodies**
    - **Govt bodies & Entities**

IR Financial Accounting System

- **Indian Railways, a department of Government of India follows the cash based Government accounting system.**
- **The set of accounts maintained and compiled as per Government accounting regulation are collectively referred to as ‘Finance Accounts’**
- **These include**
  - **Receipt and Expenditure Account**
  - **Annual Appropriation Accounts**

Limitations in IR Accounting System

- Does not provide information about
  - Full holistic picture of
    - Railways Surplus/Income from operations
    - Railways Finances
    - Railways Assets and Liabilities
  - Profit or Loss Revenue Segment wise(LOB) and Lines of Service(LOS)) within a segment
  - Activity Based Costing for diverse field activities
  - Profitability of different operations, routes/sections
  - Availability of cost data in key performance areas like Operations,Maintenance,Infrastructure segments,Construction
  - Asset creation and Post Asset commissioning Evaluation .
  - Tracking of Expenditure to desired outcomes

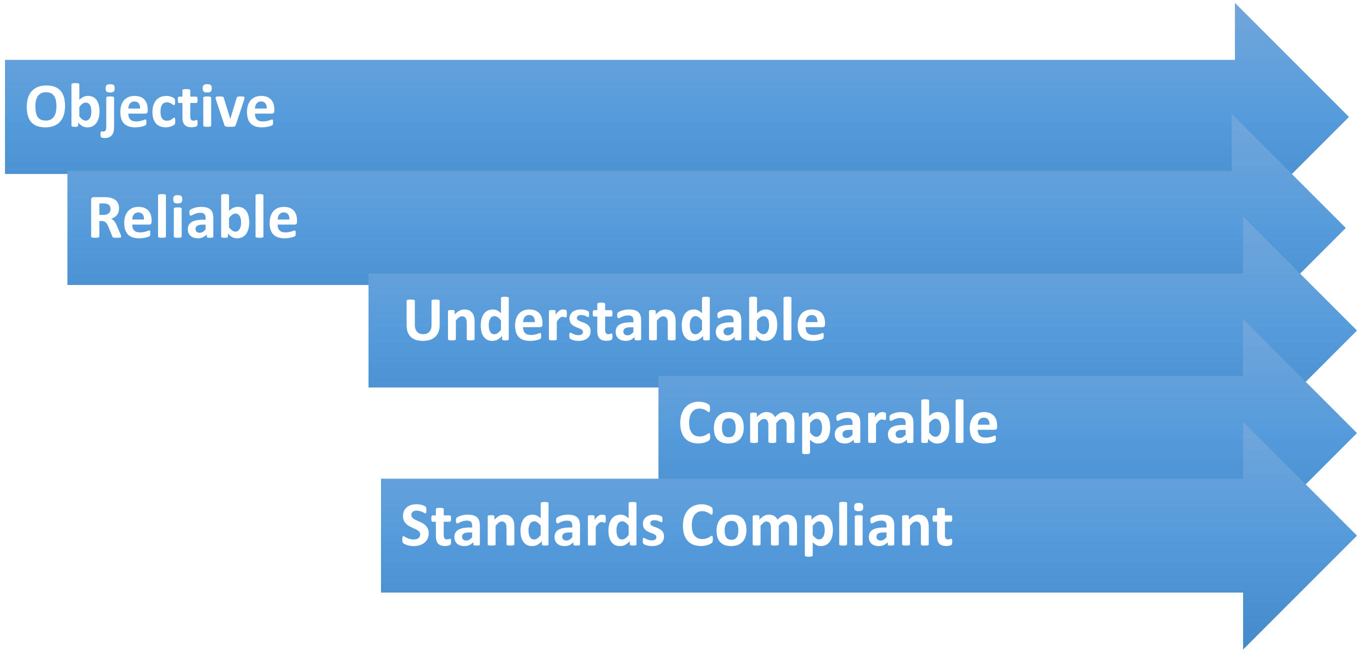
The Present Accounting System

Hiding Liabilities

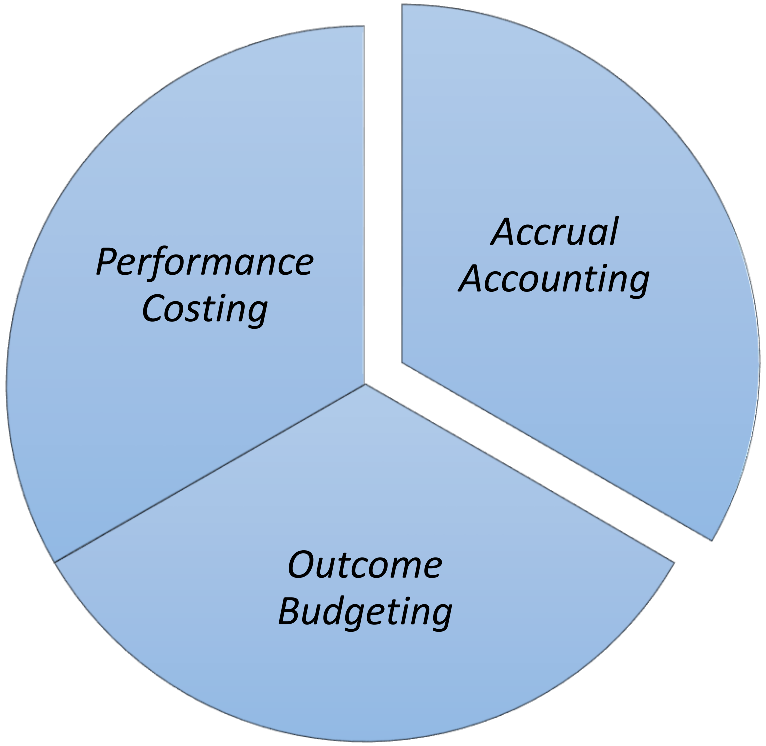
Hidden Assets

Financial Accounting System

- **Accounting system must be like a mirror.**
  - **Concealing nothing**
  - **Revealing all True, Fair, Complete & Transparent.**



Components of Accounting Reform



GOOD ACCOUNTING GOVERNANCE

To meet the Good Financial Reporting requirement the accounts of a Zonal Railways should be maintained on accrual mode of accounting under double accounting system.

The Financial accounts compiled should as per GAAP , Accounting Pronouncements of GASAB.

The following Annual Financial Statements for a Zonal Rly need to be compiled under the accrual mode of accounting.

- -Statement of Income (Profit & Loss Account)
- -Statement of Financial Position (Balance Sheet)
- -Cash Flow Statement
- -Disclosure of Accounting Policies and Notes to Accounts

Hence ,the need for Accounting Reforms

Accounting Reforms: Road travelled so far…

- *ICAI ARF engaged in December 2014*
  - *to conduct a pilot study on introduction of Accrual Accounting at AII Division and Workshop.*
- *Scope of the Pilot study scaled up to NWR to include all aspects of HQs accounting in March 2016.*
- *ICAI ARF engaged in March 2016*
  - *to conduct a pilot study on introduction of accrual accounting and upgraded costing system in RCF Kapurthala.*
- *Financial statements of NWR and RCF Kapurthala to be prepared on accrual basis for the year 2014-15.*
- *NWR project is in the final phase of preparing the Opening Balance Sheet of 2014-15-Target date August, 2016.*
- *Comprehensive Scope Evaluation Report prepared*
- *Areas of Accrual impact identified and formats prepared, data collection under progress*

Accounting Reforms: Road Travelled so far [2]

- *MOR and ICAI set up a 10 member expert group to finalize draft Accounting policies*
    - *Use of estimates*
    - *Fixed Assets Accounting*
    - *Capital Work in progress*
    - *Depreciation*
    - *Provisions, contingent liabilities and contingent assets*
    - *Prior Period items*
    - *Extraordinary items*
    - *Valuation of inventories*
    - *Revenue recognition*

Accounting Reforms: Road travelled so far 3 …

1. Comprehensive study of existing system curently being followed at NWR (Completed)
2. Designing of formats of reporting (Completed)
3. Capturing Accrual Impact on Financial Statements (Completed)
4. Finalization of significant accounting policies (Draft Ready)
5. Finalization of valuation norms for Assets and Liabilities (Draft Ready)
6. Compilation of Fixed Assets Register and furthering the accrual data (Formats shared)
7. Preparation of Opening Balance Sheet as on cut off date (Format Approved)
8. Compilation of Financial Statements for the financial year (Format Approved)
9. Preparation of Accrual Accounting Implementation Manual (In Progress)
10. Capacity Building, Hand holding & Trainings (In Progress)

Problems encountered during the pilot study at NWR: FAR

- Non availability of data
- Non availability of class of assets
- Year of acquisition of assets not available
- Cost of acquisition of assets not available
- Codal life of roads/streets, furniture/fixtures and buildings not available
- Availability of details in annual form
- Define threshold limit to expense off assets

Problems encountered during the pilot study at NWR: Rolling Stock

- Non availability of financial data
  - Cost of acquisition
  - Year of acquisition
  - Depreciation rate
- Non availability of physical data
  - Coach master
  - Loco master
  - Wagon master
- Data in FOIS

PERFORMANCE

COSTING

&

OUTCOME

BUDGET ANNOUNCEMENT RAIL BUDGET 2015-16

- **The Hon'ble Minister of Railways in the Budget speech Rail Budget 2015-16 stated as under:**

> ***"We have limited resources and thus must ensure that all public expenditure results in an optimal outcome. We, therefore, intend to set up a working group to modify the present system of accounting, to ensure tracking of expenditure to desired outcomes. The data on costing would be available online including costs incurred on constructing, augmenting, maintaining and operating railway lines. This would also help in undertaking post asset commissioning evaluation studies."***

In pursuance of the above objectives, a preliminary study of the existing Financial Accounting, Costing, Budgeting, IT and other related systems at various field units of Northern Railway located in and around Delhi and a draft concept paper has been submitted by ICAI ARF. The concept paper is being refined based on suggestion of Advisory body and working group. **Designing of proposed system is in progress.**

Budget Announcement 2016-17

Para 121 (f) of Budget Speech 2016-17

"Mission beyond book keeping: Being a Government undertaking, IR does not follow practices in accounting which aid detailed assessment of unit costs. Though we are moving from single entry to double entry systems and from cash based to completely accrual based accounting, I do not consider them as great reforms. As a thriving commercial entity, we also want IR to go a step further and establish an accounting system where outcomes can be tracked to inputs. This is a structural change which forms the bedrock of our transformation, as right accounting would determine right costing and hence right pricing and right outcomes. We intend taking up its implementation over Railways in a mission mode and complete the entire roll out in next few years."

Accounting Reforms: Scope- Vision of Hon’ble MR

Right Accounting → Right Costing → Right Pricing → Right Outcomes

Linking of Budget → Expenditure → Outputs → Outcomes

THE PROPOSED MANAGEMENT ACCOUNTING SYSTEM

The discipline of **Cost accounting around the world** has contributed significantly in enabling managerial and financial decision making in most prudent manner in all application areas of a business organization.

The proposed system is an integrated IT enabled state of the art system of cost accounting which will cover not only the train operations but shall also have Activity Based Unit Costing **(ABUC or Performance costing)** as a functional module. This ABUS module shall cover all direct and indirect fields and allied activities under the detailed cost centre framework. The ABUS Module shall enable **Train costing, cost control, performance based Outcome budgeting and Responsibility Accounting.**

PERFORMANCE COSTING

•A paradigm shift is required to move budgeting process from decision on inputs to decision on outputs and outcomes.

•There is a pressing need to review the present accounting system with a view to upgrade, capacitate, automate and if required, to overhaul it in order to achieve the following objectives:

•Up gradation of existing Costing system and related procedures to ensure "On Line" availability of relevant cost data in key performance areas like Construction, Operations, Maintenance, Capacity Augmentation, and Post Asset Commissioning evaluation, etc.

•Linking and Tracking of expenditure incurred by Railway units, under various revenue and capital heads of accounts with the desired outcomes to be specified during budget formulation in quantified terms (ETKM, GTKM, NTKM, PKM and Revenue in rupee) for Responsibility accounting and management control.

•Ensure availability of cost data considered necessary for costing/ pricing of Rail transport services, section and route-wise across IR network and ascertain profitability of respective Lines of Business (i.e. Passenger, Freight and Parcel etc).

•Availability of managerially useful data considered essential for taking operational and financial decisions.

THE COST CENTER FRAMEWORK

Expenses of SSE/P. Way
Expenses of SSE/Works
Expenses of SSE/Bridge
Expenses of SSE/TRD
Expenses of SSE/Train lighting
Expenses of SSE/AC maintenance
Expenses of SSE/Signal
Expenses of SSE/Telecom
Expenses of Station Manager
Expenses of SM and Operating control
Expenses of Chief Ticket Supervisor
Expenses of Chief Ticket Booking office
Expenses of Parcel office
Expenses of Luggage room
Expenses of Chief Goods Supervisor

Direct Cost Center

Expenses of DRM /CWM/GM office/ Other Admn offices

Indirect Cost Center

COST CENTRE	MEASURABLE OUTPUT	OUTCOME
SSE/Works	Per Sq Meter Plinth area maintained	
SSE/Permanent Way (P.Way)	Equated track kilometer	
SSE/Bridge	Per span maintained or per meter linear length	
SSE (ROB)/ (RUB)	Per ROB or RUB	
SSE/Signal	Per equated signal maintained	
SSE/Telecom	Per telephone line maintained or Per kilometer cable maintained	
SSE/Carriage	Per coach maintained	
SSE/Wagon	Per wagon maintained	
SSE/AC	Per AC coach maintained	
SSE/Electrical	Per coach maintained	
SSE/Train Exm	Per coach maintained	
Station Manager	Number of trains passed	
Computerised Reservation System (CRS)	Number of reserved tickets booked	

Centralised Traffic Control (CTC)	Number of originating train passed
SSE/Parcel	Number of parcels booked
Train Examiner (TXR)	Number of trains attended
Diesel Shed	GTKM/Engine Kilometer equated
Freight	NTKM/GTKM
Mixed Train	Ratio between passenger/freight trains
Shunting Loco	Shunting kilometer
Workshop	GTKM earned

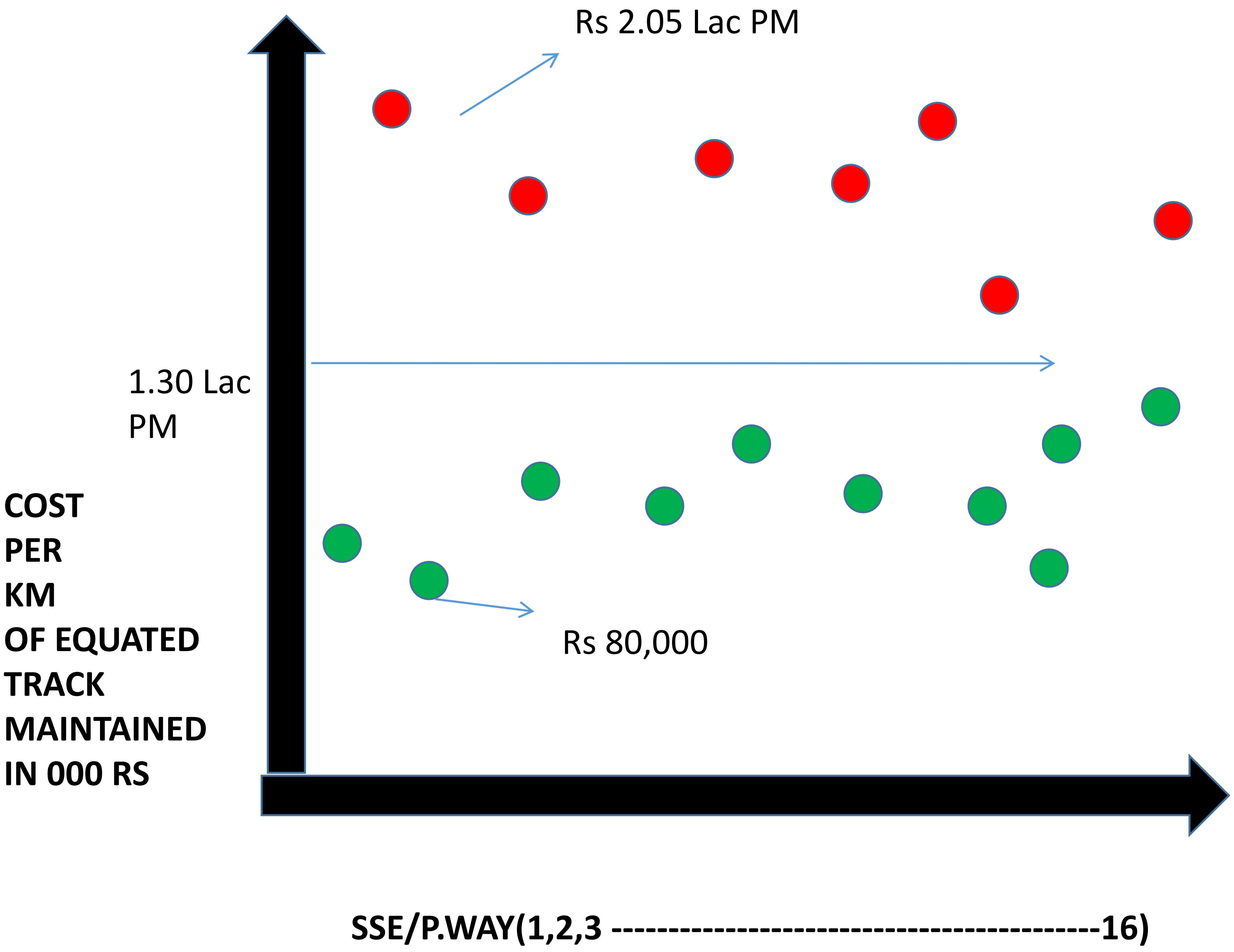
THE PROPOSED CHART OF ACCOUNT

Capturing of Data Transaction Recording Stage

COST SHEET OF SSE/P.WAY MONTH ----, OUTPUT----- ETKM, ACTIVITIES--,COST DRIVERS----

DIRECT COST	INR	VARIABLE/FIXED
TRACK MATERIAL		
OTHER DIRECT STORES		
CONTRACT OUT EXP		
MANPOWER COST		
MACHINE COST		
OTHER EXP		
PRIME COST		
INDIRECT COST		
MANPOWER		
OFFICE EXP		
TRANSPORT EXP		
OTHER INFRSTRUCTURE COST		
GROSS COST		
CREDITS		
NET TOTAL COST		
COST PER ETKM*		

* DETAILED ANALYSIS FOR EACH ELEMENT OF COST CAN BE DONE SEPARATELY


Rs 2.05 Lac PM
1.30 Lac PM
COST PER KM OF EQUATED TRACK MAINTAINED IN 000 RS
Rs 80,000
SSE/P.WAY(1,2,3 ---16)

DETAILED COST DISSECTION AND ANALYSIS(DSDA) &ZERO BASE REVIEW(ZBR)

COST PER ETKM IN A RLY DIVISION VARIED FROM Rs 80,000 to Rs 2.05 Lac PM

AVERAGE MEAN COST Rs 1.30 Lac PER ETKM

HIGH COST SSE/P.WAY IDENTIFIED SUBJECTED DSDA&ZERO BASE REVEIW ,
FINDINGS DETAILED BELOW

OVER USUAGE OF MATERIAL,WASTAGES,REJECTION,BAD WORKMANSHIP,THEFT,POOR QUALITY OF MATERIAL SUPPLIED,HIGHER THROUGHPUT,GRADIENT, OVERSTAFFING, OUTSOURCING WITH INHOUSE MANPOWER AVAILABILITY,HIGHER OT,HIGHER TRAVELLING EXP,ABSENTISM, REDUNDANT NON-VALUING ACTIVITIES,NON PERFORMING AND UNDER PERFORMING ASSETS, ACCUMULATED SCRAPS,LEAKAGES ,WEAK INTERNAL CONTROL

CONTROLLABLE - NON CONTROBLE FACTORS i.e ALLOWANCES IN STANDARDS

COST CURTAILMENT TARGET

OUTCOMES FOR NEXT BUDGET YEAR

Depreciation Accounting Policy

Depreciation is the systematic reduction in the recorded cost of a fixed asset due to wear ,tear and obsolescence.
The Best accounting practices in Rail Industry

At present Provision for Depreciation in IR is need based and adhoc. Is Provision adequate?

Is Exp on IOH,POH and Special Repair Revenue Exp as per GAAP?

Present Rate2.37% (7725/325892) - Year 2014-15

Dep Rates as per Companies Act 2013

Railway Locomotive,Rolling stock	15%
Electrical Installations	10%
Plant & Machinery (Cont process)	15%
Telecom Cables	18%
Office Equipments	5%

ED Technical Committee on e-Asset Register reviewing existing practices including codal life.

Depreciation Accounting Policy under compilation shall be approved by Railway Board.

FINANCIAL DIGONOSTICS

ASSET TO REVENUE/TURNOVER RATIO

Chinese Railway group Ltd	1:0.86
Transport Corporation of India Ltd	1:4.20
Konkan Rly Corporation Ltd	1:042
Indian Railways	1:0.47

FACT SHEETS ABOUT INDIAN RAILWAYS'S ASSET FLEET

- IR Assets spread out in diverse field location, under and over the ground
- No Proper Fixed Asset Register(FAR) in prescribed format under GAAP
- Depreciation is being provided on adhoc basis
- No reconciliation between FAR and Block Account source of Finance wise
- IR Assets in usage 24*365 frequent repair ,upgradation and retrofitment
- No provision for impairment and damage
- No Financial Review on regular basis

FIXED ASSET REGISTER (FAR)

- Correct Physical Enumeration with clear location and custodianship
- Correct valuation as per GAAP
- Correct Depreciation Accounting as per GAAP
- Provision of accurate Replacement reserve for inflation and improvement element
- Reconciliation with Block Account for rationalisation
- Correct accountal of released decommissioned assets
- Correct accountal of Profit or Loss on Sale/Auction of scrapped assets
- Must for Accrual accounting and Performance costing cum Outcome Budgeting

e –Asset Committee

To assist in compilation of Master of description for various categories of assets.

To assist and advise on scheme of codification.

To review and recommend codal life of various assets.

To assist in compilation of Master Rate list of assets.

To identify scope of interface with other existing computerised applications.

To assist in finalising functional specifications of e-Asset Application.

E-Asset Register (eAsR)
Centralised IT Application

FUNCTIONAL SPECS AND FUNCTIONALITIES

The Accounting Need,Depreciation Provision ,inputs for Replacement Policy

The Asset Efficacy of use(Turnover ratio) analytics

The Asset to other Assets in Production/Maintainence activity link

The Asset rational utilisation to Purchase requirement link

The Asset economic history data analytics for purchase or repair decision

The Asset to Opex link and cost control

The Asset to Productivity Test link

Any other Functionalty.

IR ACCOUNTING REFORMS -
STATUS AND ACTION PLAN

- **Accrual Accounting -**

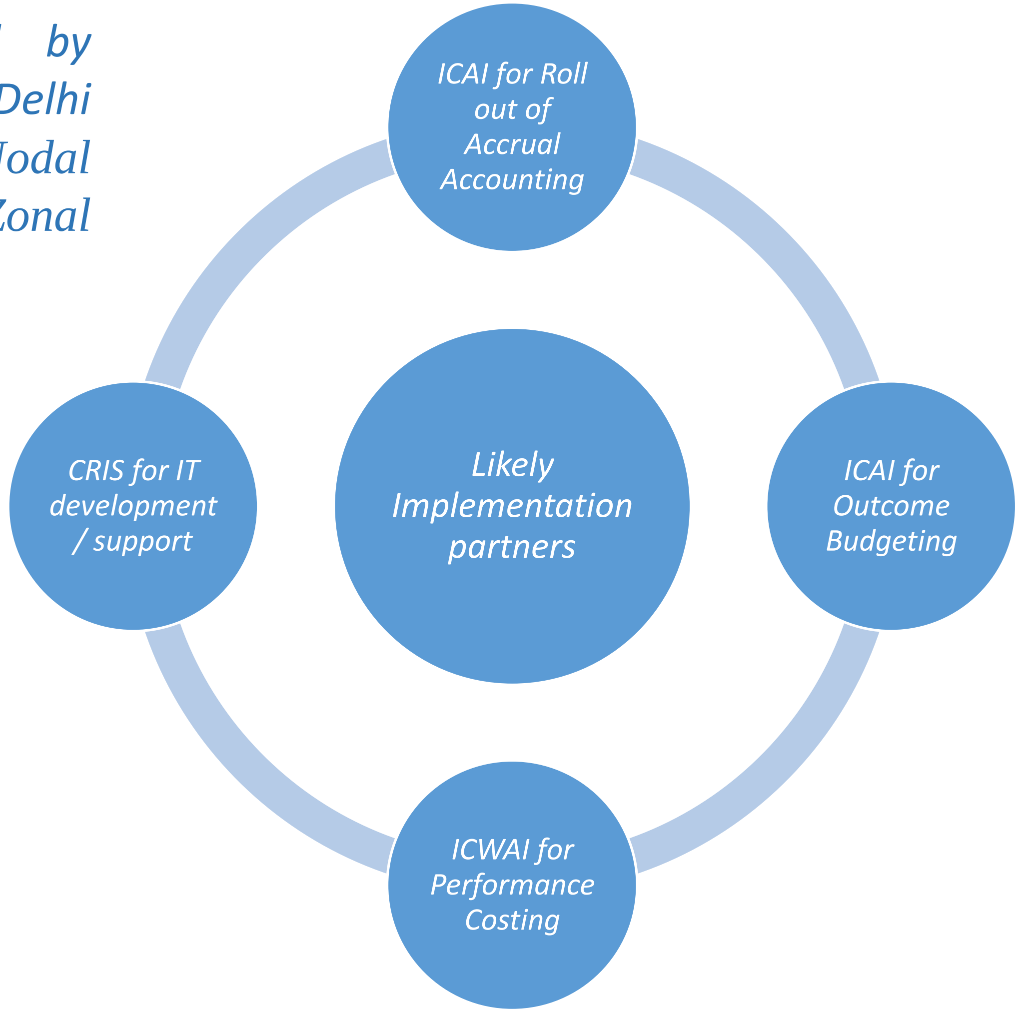
- Bl.Sheet , P&L A/c , disclosures & notes of NWR – complete by Aug 2016
- Simultaneous Roll Out on 15 Zonal Rlys & 6 PUs - complete by Sept 2017

- **Outcome Budgeting & Performance Costing**

- Project Orgn headed by CPM @ New Delhi – By May 2016
- Implementation partners (on nomination basis) will be –
  - ICAI for Outcome Budgeting ;
  - ICWAI for Performance Costing
  - CRIS for IT development / support -
- Live studies on NR - GM & team to steer outcomes / performance indices.
- Award of Implementation Contracts - Aug 2016
- Finalisation of functional program specs - Feb 2017
- Live studies/reports on NR - Dec 2017
- Roll out on all Rlys - Mar 2018

Accounting Reforms - Phase II and III Implementation Plan

Project Headed by CPM based in Delhi RPMs and Nodal officers in Zonal Railways



S.N	METHODOLOGY	MILESTONE	2016								2017												2018			
			M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A
1	ACCRUAL ACCOUNTING IN ZONAL RLYS	PILOT STUDY ON NWR																								
		PREP WORK FOR ROLL OUT																								
		IT APPLICATION																								
		TEST & VALIDATE																								
		TRG & ROLL OUT ON ALL RLYS																								
2	ACCRUAL ACCOUNTING IN PROD UNITS	PILOT STUDY AT RCF / KXN																								
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3	UPGRADED COSTING IN PROD UNITS	PILOT STUDY AT RCF / KXN																								
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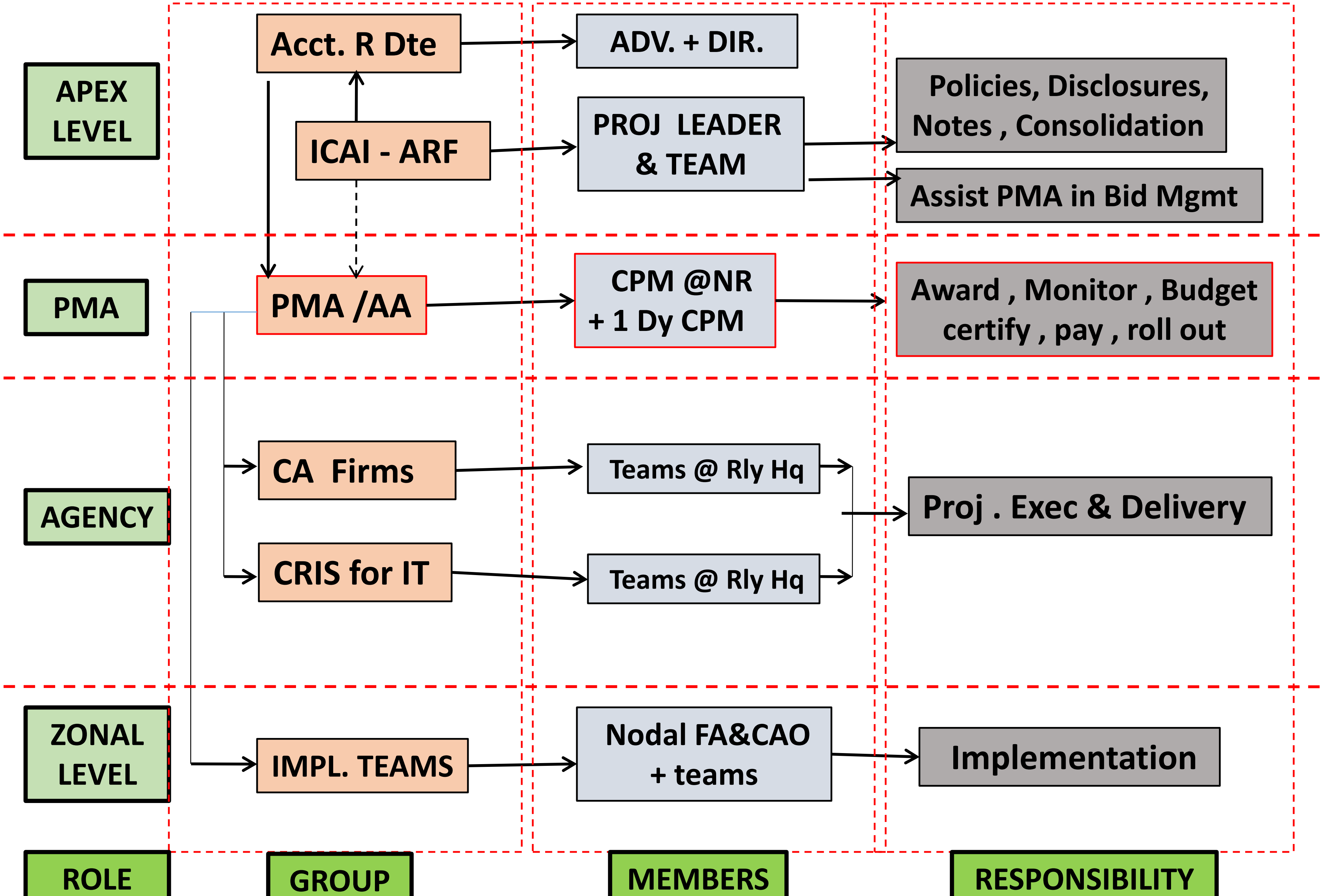
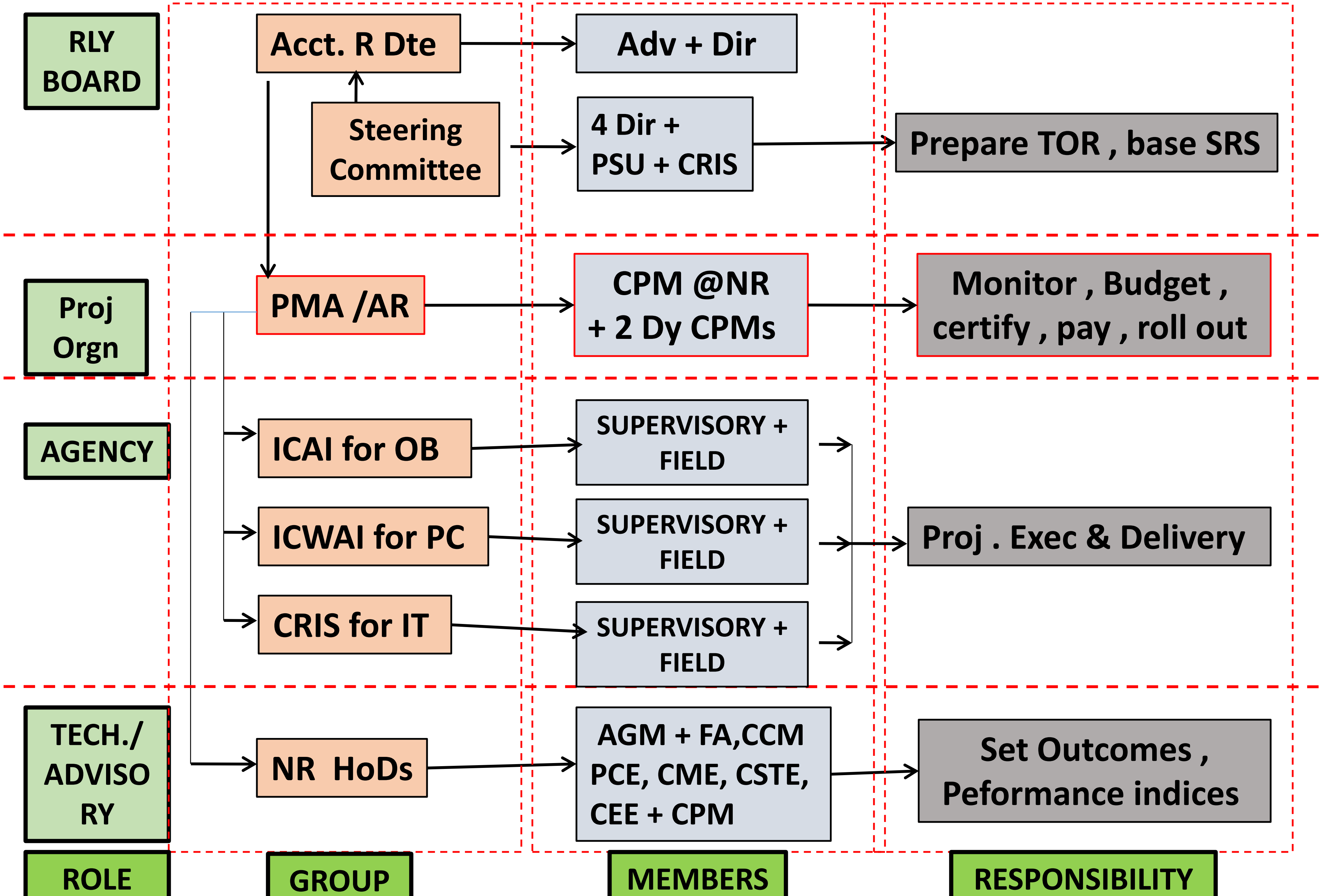
FOR YOUR INVALUABLE TIME

STRUCTURE – Accrual Accting . Roll out on Rlys / PUs



STRUCTURE – Outcome Budgeting & Perf. Costing Project



Introduction of EPC Mode of Contracting in Railways

Achal Khare

Ex. Director / Infra (Civil)

- **EPC stands for Engineering, Procurement, Construction and is a prominent form of contracting agreement in the construction industry.**
- **The engineering and construction contractor will carry out the detailed engineering design of the project, procure all the equipment and materials necessary, and then construct to deliver a functioning facility or asset to their clients.**
- **Companies that deliver EPC Projects are commonly referred to as EPC Contractors.**

NEED FOR EPC CONTRACT

- **Conventional item-rate contracts are generally prone to time & cost overrun due to**:

    - **Involvement of multiple agencies- generally a new line/doubling project involves 15 to 20 different value contracts**

    - **Failure of even one contract delays the project**

    - **Lack of flexibility in replacing failed agency on real time basis**

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  - **Variation in items and quantities**
- **Considerable time of Project Engineers is consumed in processing of:**
  - **Variation in quantity of items which are quite frequent**
  - **Introduction of NS items**
  - **Variation in contract price**
- **More susceptible from vigilance point of view**

OBJECTIVE OF EPC CONTRACT

- **Implementation of project to specified standards with a fair degree of certainty relating to time & cost while transferring the construction risk to contractor.**
- **Awarding contract for a LS price ensures predictability and financial discipline both for Government & Contractor.**
- **Well defined system of obligation associated with damages both for Railway & Contractor.**
- **Assigning risk to the party who is in a better position to mitigate it e.g. land, statutory clearances assigned to Railway whereas design, site uncertainty, sub contracting are assigned to contractor.**

Perceived Advantage of EPC

- Detailed initial planning before tendering- Railway is required to specify its requirement only, without detailed design.
- Effective project management - less no. of contracts to mange.
- Engagement of professionally managed agencies.
- Minimum variation orders.
- Milestone based payments.

Project scope needs to be specified very carefully and should be exhaustive

SALIENT FEATURES OF MODEL EPC AGREEMENT FOR RAILWAYS

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Two-stage process of bidding :

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EPC CONTRACT BIDDING PROCESS

- **Generally, the Lowest Bidder shall be the Selected Bidder.**

- **If two or more Bidders quote the same bid price (the "Tie Bidders"), Bidder is selected by draw of lots, in the presence of the Tie Bidders.**

- **In the event of withdrawal of offer by the Lowest Bidder, the Authority shall annul the Bidding Process and invite fresh bids.**

SALIENT FEATURES OF RFQ

- **Minimum eligibility criteria:**
  - **Technical capacity –**

(i) Must have received payments for construction of Eligible projects such that the sum total thereof is more than 2.5 times the estimated project cost ("Threshold Technical Capacity") in preceding five years.

Provided that-

For NL, GC, Doubling/Third line etc works: at least half of the Threshold Technical Capacity shall be from the Eligible Projects in Category 1 and/or Category 3.

For Electrification works: the total Track Kilometre (TKM) of Overhead Equipment (OHE) work from Eligible Projects under Category 1 and/or Category 3 should be at least half of the Estimated Track Kilometre (TKM) of the Project.

SALIENT FEATURES OF RFQ

- **Minimum eligibility criteria:**
  - **Technical capacity (contd.) –**

(ii) (a) For NL, GC, Doubling/Third line etc works :

undertaken at least one Eligible Project of value of not less than 35% of the Estimated Project Cost and have received payments for not less than 75% value of such project.

(b) For Railway Electrification works:

undertaken at least one Eligible Project under Category 1 or Category 3, either of value of not less than 35% of the Estimated Project Cost OR of total TKM of overhead equipment (OHE) of not less than 35% of the Estimated TKM of the Project, and OHE portion of the Eligible Project has been commissioned. (Provisional Acceptance Certificate of the OHE portion of Eligible Project has been issued).

SALIENT FEATURES OF RFQ

- **Minimum eligibility criteria:**
- **Financial capacity – The Applicant shall have a minimum Net worth equal to Rupees *** crore at the close of preceding financial year.**
  - **This amount should be about 10% (ten percent) of the Estimated Project Cost of the project for which bids are being invited.**
  - **Net worth has been adopted as the criterion for assessing financial capacity since it is a comprehensive indication of the financial strength of the Applicant.**

EVALUATION CRITERIA

- **Only those Applicants who meet eligibility criteria will be evaluated**
- **Eligible projects:**
  - **Category-1: PPP project in railway sector with capital cost of project more than 30% of the estimated project cost.**
  - **Category-2: Same as above but in core sector.**
  - **Category-3: Construction project on railway sector executed fully or partially during preceding five years and received payment not less than 15% of the estimated project cost.**
  - **Category-4: Same as above but in core sector.**

EVALUATION CRITERIA

For NL, GC, Douling/Third line etc works -

- **Railways sector would be deemed to include railways, metro rails, LRT, monorail, high speed rail, highways, expressways, bridges (road/railways) and tunnels (road/railways); and**
- **Core sector would be deemed to include hydroelectric dams, barrage, ports, airports, thermal/steel/cement plants, oil and gas pipelines, irrigation canals, water supply (pipelines/treatment plants), sewerage (pipelines/treatment plants), power transmission lines and real estate development**

EVALUATION CRITERIA

For Railway Electrification works –

- **Railways sector would be deemed to include overhead equipment system of railway electrification for a railway system, metro system, suburban transit system, and high speed railways; and**
- **Core sector would be deemed to include Railways, power and telecom sectors or any other construction works.**

EVALUATION CRITERIA (RFQ)

- For assigning scores to the Applicant, experience is measured in terms of **Experience score**
- **Experience score** for an eligible project in a given category will be eligible receipts in that project divided by 1(one) crore and then multiplied by the applicable factor:

Category	Factor
Category 1	0.75
Category 2	0.50
Category 3	1
Category 4	0.75

SHORTLISTING OF APPLICANTS

- **Aggregate experience score** will be sum total for all eligible projects of an Applicant
- Applicants to be ranked based on their **aggregate experience scores**
- Authority would **shortlist upto 6 (six) pre-qualified Applicants** for participation in the bid stage

AUTHORITY' S OBLIGATIONS

- **Provide Right of Way for construction not less than 90% of project length within 15 days of signing agreement.**
- **All environmental and forest clearance within 15 days.**
- **GAD approval of ROBs/RUBs from Road authority within 60 days.**
- **Shifting of utilities within 180 days of notice given by contractor.**
- **Provide Traffic & Power block as specified in agreement.**

CONTRACTOR’S OBLIGATIONS

- **Provide Performance Security equal to 5% of contract price (CP) within 15 days of signing of agreement.**
- **To undertake construction and complete the project on or before schedule completion date.**

Damages associated with obligations of MoR

- Amount of damage for not providing ROW will be

  (Rs./day/m)

  $$= 0.10 \times C \times 1/L \times 1/N$$

  C=Contract Price (RS.), L=Length of Project (m),

  N=Completion Period (days)
- For 100 km. project with completion period of 1000 days & CP Rs.600 crore, damage works out to Rs.6000/day/km.
- In case of ROB/RUB GAD approval, each such ROB will be treated as 1 km. of ROW for the purpose of damages.
- For Power/Traffic block, damage rate would be Rs.1000/day for each hour of block not provided.
- Aggregate damages payable as above shall not exceed 2.5% of the contract price.

Damages associated with obligation of contractor

- **Delay in Performance Security – Damages @ 0.05% of CP/day.**
- **Delay in project completion – Damages @ 0.05% of CP/day subject to a maximum of 10% of CP.**

CONTRACT PRICE

- **L.S. Price for defined scope of work .**
- **Interim payment on completion of a stage, in length, number or area as specified in Schedule e.g. Bridge payment is planned in 03 stages i.e. Foundation, Sub-Structure & Super-Structure. On pro rata basis w.r.t. total linear length.**
- **Interim payment schedule include electrification and S&T works also.**
- **Price adjustment as per specified PV formulae with 15% fixed component.**
- **Retention Money: @6% of interim payment, total not exceeding 5% of CP, to be refunded within 15 days of issue of completion certificate.**

CHANGE OF SCOPE

- Change of scope - Omission or addition of any work from the scope of the project and also change in specification.
- The cost of change of scope determined based on works of similar nature or else to be derived on the basis of applicable SOR of relevant zonal railway .
- Total value of change of scope not to exceed 10% of contract price.
- In case of no mutual agreement on change of scope, Authority may award the additional work to other contractor. However, if the main contractor bid is within 10% of the first lowest, he will have the option of matching the first bid and execute the work after paying the 2% of the bid amount to Authority.

Design & other documents by contractor

- **Contractor to provide, general methods for design & construction, plan, traffic management and safety plan.**
- **Programme for completion for all stages of construction.**
- **Quality Assurance Plan :**
  - **i. Quality control mechanism, Method Statements including sampling, testing, test frequency, standards, acceptance criteria, check-list for site activities, proforma for testing & calibration.**
  - **ii. Internal quality audit system.**
- **Contractor to appoint proof consultant with the consent of Railway.**

MONITORING & SUPERVISION

- **Railway to nominate an Engineer to keep day-to-day interaction between Railway and the contractor - Authority' s Engineer**
- **Review of all designs and other documents w.r.t. their conformity to standards & specifications, scope of work by Authority' s Engineer.**
- **Monthly progress reports.**
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Railway Approvals

- **Contractor to submit ESP within 02 months of Appointed Date and Railway to approve in next 04 months.**
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- **Delay in submission by contractor or approval by Railway for ESP, SIP & RCC will attract damage equal to 0.2% of performance security for each day of delay.**
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DEFECT LIABILITY

- **The defect liability period is two years commencing from date of issue of Provisional certificate.**
- **For important bridges, other specified structures, S&T equipments comprising new technology, there shall be extended DLP of two years.**
- **The contractor to rectify the defect within 15 days or such reasonable period as determined by Railway's Engineer.**
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THANK YOU

New Initiatives
To
Enhance Revenues

Sanjay Upreti

EDF(C)

Freight Traffic - Scenario

Year	Loading (MT)	Lead (KM)
2013-14	1051	633
2014-15	1095	622
2015-16	1104	594
2016-17 (BE)	1157	600
Upto July 2016 (Actual)	358.82	560
Proportionate Target	384.72	
Shortfall	-25.9	

Originating Earnings to end of July 2016

Category	2015-16	2016-17	Target	% Variation w.r.t PY	% Variation w.r.t. Target
Passenger	15614.72	16164.38	17631.53	3.52	-8.32
OCH	1416.96	1525.22	1770.89	7.64	-13.37
Goods	37460.67	33421.93	38301.21	-10.78	-12.74
Sundries	1134.49	1131.50	2055.55	-0.26	-44.35
Total	55626.34	52243.03	59759.18	-6.08	-12.58

Writing is on the wall

Apportioned Earnings
Rs. 8780 Cr. Less than Target
Rs. 2848 Cr. Less than Last Year

Originating Earnings
Rs. 7516 Cr. Less than Target
Rs. 3383 Cr. Less than Last Year

Perspectives in Freight Traffic

- **Finance Minister in his Budget Speech 2016-17:**
  - Government is targeting construction of additional 10,000 km of NH.
  - Upgradation of 50,000 km of State Highways is planned in 2016-17.
- **As per NCAER analysis**
  - IR's share has fallen from 86% to 30% in the last 66 years
  - likely to fall to 26% by 2020.
- **As per PWC**
  - a pro-active approach can result in increasing share of rail in total freight upto 34% by 2019-20.
  - Total freight volumes will be about 5 billion tonnes p.a. in 2019-20.
  - Railways can target higher rail share if additional focus is placed on short lead movement below 400 km.
- **In the last five years freight rates have increased by 67%.**

Competetion is here to stay

Short Lead concessions

- **Concessions to short lead traffic was given from 1.4.2003 to 25.6.2014.**
- **Once again demand was there for similar concessions.**
- **Railways have, however, projected incremental loading of 32 MT resulting in additional revenues of Rs.1,132 cr.**
- **The Railways which have projected additional loading are CR, ECR, ECoR, ER, SCR, SER, SECR, SWR, SR and WR.**

2013-14		2014-15		2015-16	
Loading (MT)	Earnings (Rs. in cr.)	Loading (MT)	Earnings (Rs. in cr.)	Loading (MT)	Earnings (Rs. in cr.)
108.73	1535.76	110.55	2449.85	117.40	3166.91

Short lead concession in freight rates

Distance slab (kms)	Concessions from 1.4.2003 to 25.6.2014	Concessions w.e.f. 15.7.2016 to 15.9.2016
1-50	50%	30%
51-75	25%	10%
76-90	10%	5%
91-100	NIL	NIL

Concessions will result in loss of earnings by Rs.980 Cr. in full year i.e. Rs. 80Cr. Per month.

Busy Season Charge-Withdrawal

- **Large number of rakes idle.**
- **Traffic moving by road.**
- **Withdrawal of BSC in BCN and BCNHL**
  - **from 1.5.2016 to 30.6.2016.**

- **Revenue Loss**
  - **About Rs.526 cr. in 2 months**
- **Reduction in stabling BCN- 89%**
  - **from 211.5 in April'16 to 24 in June'16**
- **Reduction in stabling BCNHL-74%**
  - **from 38.7 in April'16 to 10 in June'16**

Loading in MT						Monthly % variation over last year		
April'15	April'16	May'15	May'16	June'15	June'16	April'16	May'16	June'16
16.00	13.83	16.93	15.44	16.68	16.75	-13.6	-8.8	0.4%

Dual freight Pricing of EXORE-withdrawal

Month	2015-16 (rakes per day)			2016-17 (rakes per day)		
	EXORE	Domestic	Total	**EXORE**	Domestic	Total
April	**0**	77	77	**3**	86	89
May	**0**	82	82	**5**	86	91
June	**0**	79	79	**6**	82	88
July	**0**	76	76	**6**	78	84

- **Cumulative loading of EXORE upto July**
  - **611 rakes**
  - **2.32 MT @ 3800 per rake**

- **Dual pricing started in 2008-09.**
  - **Export boom**
  - **EXORE rates linked to FOB rates .**
  - **Lots of documentation.**

Port Congestion Charge - Withdrawal

- Port congestion charge
  - @ 10% on base freight
- Annual earning from port congestion charge
  - Rs.1200 cr.
- Steady fall
  - Rs.150 cr. in April 2015 to Rs.120 cr. in Dec.2015
- withdrawn w.e.f. 14.4.2016.

Two point-Multi Point- Rationalisation

- PFT, Inland Container Depots, Private siding, etc. have been included.
- BCN permitted for multi point booking w.e.f. 15.3.2016
- Growth in traffic
  - **BCN ;** from 24.9 rakes p.d. to 27.1 rakes p.d.
  - **BCNHL;** from 10.69 rakes p.d. to 11.6 rakes p.d.

	2015-16	2016-17	Variation
Loading (MT)	5.71	7.90	38.4%
Earning (Rs. In Cr.)	642.74	877.86	36.6%

Mini Rake Rationalisation

- Distance for minimum rake increased from 400 km to 600 km w.e.f 15.3.2016

	Loading in MT								
	April		May		June		April-June		
	2015	2016	2015	2016	2015	2016	2015	2016	**% age Variation**
MT	0.15	0.71	0.16	0.90	0.19	0.94	0.50	2.55	**410%**
Rs. in Crores	7.82	44.68	8.74	51.22	9.58	49.72	26.14	145.62	**457%**

Roll-on roll-off

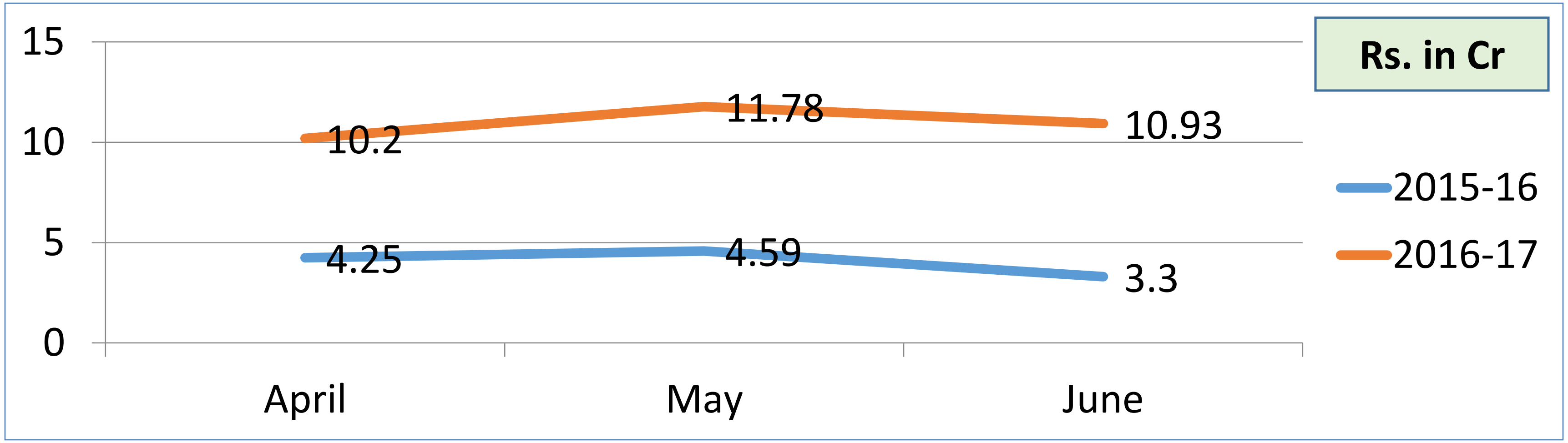
- New concept for Indian Railways though an old one on Konkan.
- First started on ECR.
- Next is being tried on NFR.
- Instructions have been issued to all Zonal Railways.
- Full powers to fix rates with Zonal Railways.

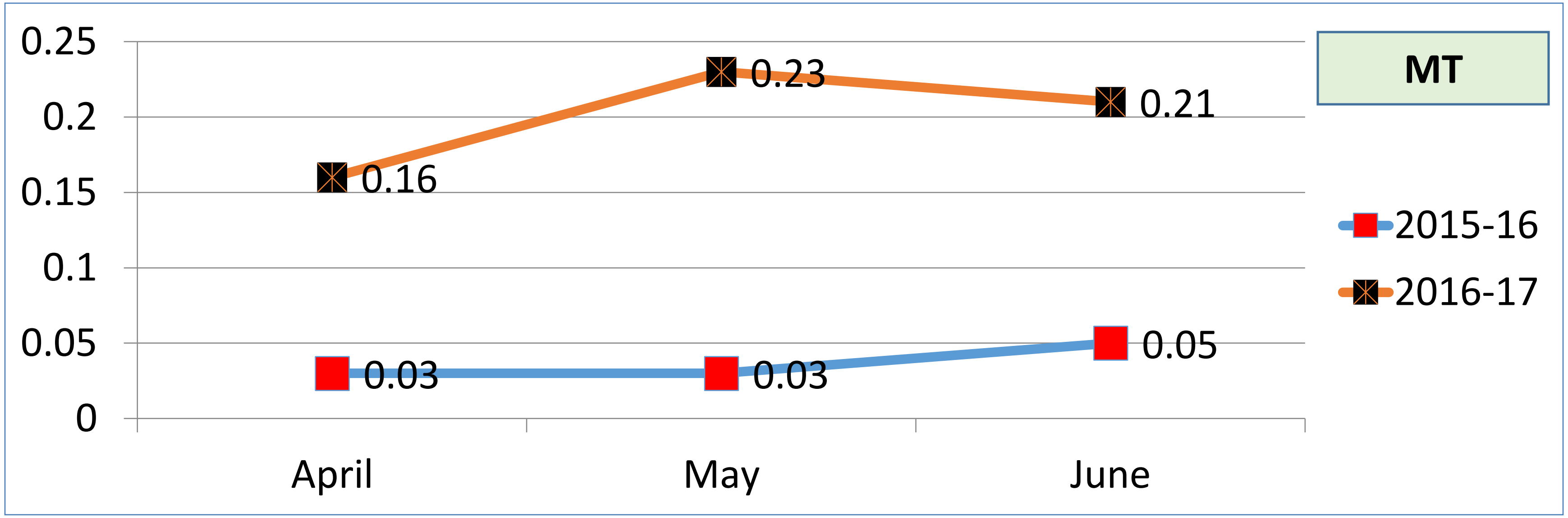
25.5.2016 to 13.7.2016	No. of Rakes	Number of trucks		Amount Rs. in Cr.
		Loaded	Empty	
	83	1109	1141	1.32

Automatic Freight Rebate in TEFD

- Traffic will be charged at
  - LR1 for trainload
  - class 100 for wagonload.
- Traffic of less than 200 KM not allowed.
- Customer does not have to apply for this scheme.
- TMS gives rebate based upon indent.
- Permitted even for half rake.
- Some restriction in number of commodities.

Automatic Freight Rebate for TEFD





Station to Station Rates- Proposal

- Section 32(a) of the Railways Act, 1989
  - Railway administration can quote ‘Station to Station rate’
- Railway Board guidelines to zonal railways for grant of STS rates
  - Last guidelines issued in 2002 (RC Nos. 36 and 62 of 2002)
  - Guidelines relating to STS superseded through RC 25/2006.
  - All freight incentive schemes withdrawn in 2015 except
    - ‘Incentive Scheme for Freight Forwarder’
    - ‘Automatic Freight Rebate in Traditional Empty Flow Direction ‘
- Discounted freight should not be less than Class 100.
- Only on incremental traffic over and above the benchmark.
- NTKM defined as average NTKMs of corresponding periods of previous 24 months and subject to other provisions.

	Traffic Commercial Code	STS Circular of 2002 (36 and 62)	Proposed policy 2016
Restriction in Class	Class 80 & below for T/L and W/L	All commodities below Class 110	All commodities below Class-100
Restricted commodities	Coal, coal shale, soft coke, lignite, patent fuel, middlings, Livestock, petroleum	Coal (all types), lignite, livestock, Dangerous commodities or those having suffix ‘d’ in goods Tariff except ‘POL’ products	Coal and coke (excluding pet coke), iron ore, POL, military traffic, POL and RMC.
Distance restriction	150 km for T/L and W/l 500 km for smalls		Nil
Time limit (agreement)	Not more than 18 months	Not less than 3 months and more than 12 months. For new traffic, maximum period is three years.	Not more than 3 years with fresh agreement after every one year and not less than three months.
Scale of concession		**Class-110 to Class-135 :** upto 10% on retained traffic and upto 12% for incremental traffic **Class-140 to Class-175:** upto 12% on retained traffic and upto 18% for incremental traffic **Class-180 to Class-300**: upto 15% on retained traffic and upto 24% for incremental traffic	For retention of traffic maximum 15% and for incremental traffic upto 30%

Some suggested traffic for STS

- Alumina, Bauxite, Clinker, Fly Ash, Slag, Stone and Soda Ash etc.
- Iron and steel from Dolvi (Mumbai) to Kalmeshwar (NGP)-Central Railway
- Cement from Tiruchchirapalli Division to Chennai Division (MAS) for jumbo stock.
- Gypsum loading from Trivandrum Division to cement plants in Palaghat Division and destinations in Guntakal and Secunderabad divisions of SCR and Solapur Division of CR.
- Steel from Salem Division to Chennai Division and Mumbai Division of CR for BRN/BOST.
- Dolomite loading from NFR to destinations on SER, ER and ECoR.
- Bentonite in BOST from New Bhuj to Tata Nagar, Cuttack, Shalimar, Raipur and Arrkonam.
- Clinker from Manikgarh on SCR to MCCS siding on Eastern Railway in Murshidabad District.
- Scrap traffic from Western Ports to NR
- Automobile traffic from Wajalabad auto hub to Chennai Port
- Fly Ash from NTPC Power Houses to different destinations etc.
- Bagged consignment in open wagons

Retiring Rooms Management through IRCTC

- All stations except
  - Habibganj, Anand Vihar, Bijwasan, Surat and Gandhinagar.
- Salient Features
  - O&M of Retiring Rooms to be handed over to IRCTC.
  - All investment by IRCTC under its own brand name.
  - Stations will be handed over in 4 phases.
  - For 1st phase 16 stations have been identified.
  - Revenue sharing between IR & IRCTC in ratio of 25:75. **???**
  - IRCTC will have the powers to fix the room tariff.

PASSENGERS BOOKED (Million)				
Year	Target	Actual	Variation over Last Year	Variation over Target
			%age	%age
2010-11	7773.07	7809.09		
2011-12	8271.67	8224.38	5.30	-0.57
2012-13	8740.79	8420.71	2.40	-3.66
2013-14	9089	8397.06	-0.30	-7.61
2014-15	8645	8224.12	-2.06	-4.87
2015-16	8601	8151.49	-0.88	-5.23
2016-17 (till June)	2050.15	2040	-0.1	-0.5
2016-17 (till July)	2746.18	2738.97	-0.01	-0.27

1. **No. of passenger have declined from 2013-14 till last year (2015-16).**
2. **In Q1 the negative growth was only 0.1%.**
3. **Till end of July,2016, the trend was expected to reverse, however, there is still a minor shortfall.**

PASSENGER EARNINGS (Rs Crores)				
Year			Variation over Last Year	Variation over Target
	Target	Actual	%age	%age
2010-11	26126.47	25792.63		
2011-12	30456.00	28246.43	9.50	-7.25
2012-13	36073.00	31322.84	10.90	-13.17
2013-14	42210.00	36532.25	16.60	-13.45
2014-15	44645.00	42862.68	15.48	-3.99
2015-16	50175.00	45374.48	5.86	-9.57
2016-17 (till June)	**13098.88**	**1197.05**	**3.02**	**-8.57**
2016-17 (till July)	**17631.53**	**16164.38**	**3.52**	**-8.32**

1. **The passenger earning is increasing as compared to that in previous years.**
2. **The fares were last revised w.e.f June 26, 2014.**
3. **In 2015-16 and current FY, increase in earning is primarily due to improvement in PRS earning.**

Action Taken to Increase Passenger Business

Zonal Railways have been asked to:

- Conduct detailed analysis to ascertain reason for drop in passenger numbers, especially in the non-suburban (non-PRS) segment .
- Focus on quick dispensation of tickets including improvement in use of CoTVMs & ATVMs
- Identify sections and stations showing drop in passengers booked and intensify checks along with monitoring impact on window sales.
- Intensive Ticket checking drive has been initiated with special focus on Passenger trains.
- Zonal Railways have been asked to monitor waitlist position on trains and to augment existing trains/run special trains to meet the demand.
- Improve punctuality of Passenger trains since it has significant impact on the short lead traffic.

Steps taken in last two years to Enhance Revenue

1. Increase in Platform Ticket Charges (Rs.5 to Rs.10)........Rs.80 Cr
2. Suvidha and Special Trains...Rs.130 Cr
3. Non-suburban minimum fare increase..........................Rs.34 Cr
4. Cancellation and Clerkage charges increase.................Rs.670 Cr
5. tatkal fare; increase in minimum and maximum...........Rs.200 Cr
6. Trains hired for film shooting; Increase in charges for......Rs.20 Cr
7. Full fare for full berth for children of 5-12 years..........Rs.450 Cr
8. Changes in the Refund Rules in Nov' 2015...................Rs.130 cr per month.

Parcel Traffic-Overview

- Parcel earnings
  - 2014-15 - Rs.1925.24 cr.
  - 2015-16 - Rs.1903.49 cr.

Year	No. of SLRs	Offers	SLR	Tender awarded	Lease in previous year
2013-14	246	48	26	11	-
2014-15	221	44	20	12	11
2014-15	212	8	4	0	-
2015-16	243	12	8	7	12

Parcel Leasing Policy

	Old Provisions	New Provisions
Earnest Money	Rs.1 lakh for SLR and Rs.4 lakh for VPU.	Railways may enhance EMD in case of repeated failure of tenders due to non-serious bidders.
Security deposit	Equivalent to 10 days freight for SLR, 5 days for VPU subject to minimum of Rs.1 lakh for SLR and Rs.4 lakh for VPU.	Equivalent to 10% of the contractual value for the first year.
Duration of contract	3 years for long term lease	5 years for long term lease with escalation of freight rates @ 10% in 4^{th} and 5^{th} year.
Budgetary increase	Freight will increase with changes in freight rates.	No escalation in lumpsum freight due to change in freight rates.
Reserve Price	Formula given in the policy	Powers delegated to Zonal Railways. In case of VPU it shall not be less than `P' scale.

Vision: Non Fare box Revenue

"Although we enjoy the highest captive eyeballs in a railway system internationally, we ***earn less than 5% of our revenues through non-tariff sources.*** Many of the ***world railway systems generate 10% to 20%*** of their revenues from non-tariff sources. Over a period of the ***next five years***, we will strive to ***reach this world average*** by monetizing assets and undertaking other revenue yielding activities. We have already begun this exercise with fervour."

Hon'ble MR in his Budget speech

Thrust Areas:

1. Station Redevelopment
2. Monetising land along tracks
3. Monetising soft assets
4. Advertising
5. Overhaul of Parcel Business
6. Revenue from Manufacturing Activity

NFR Directorate

- Cross functional Directorate in Railway Board
  - Directly reporting to CRB
- Manned by
  - ED/NFR/Traffic & Commercial
  - ED/NFR/Engineering
  - Director/NFR/Finance
- All posts taken from existing strength of Railway Board and no posts taken from Zonal Railways
- Four of the six thrust areas of MR Speech being handled directly by the directorate.

Revenues from Non-Fare Sources

Rs crore

YEAR		Gross Traffic Receipt	Sundry & Other earning	Sundry as % of GTR
2014-15	Target	159248	5500	3.45
	Achieved	156710	5092	3.25
2015-16	Target	167834	7318	4.36
	Achieved	163791	5928	3.62
2016-17	Target	189270	9590	5.07
	Upto June 2016 (approx.)	38843	939	2.42
	Actual upto June 2015	41376	877	2.12
	%age change over COPPY	-6.12	7.07	

Revenues from Non-Fare Sources

- Target for 2016-17: 61% growth
- Top 5 items of NFR for achieving the target

S.No.	ITEM	TARGET (Rs crore)
1.	Advertisement & Publicity	1700
2.	Land lease for other purposes	1195.53
3.	Right of way/way leave for others	1125.20
4.	Dividend from PSUs	1000
5.	Reimbursement of loss on Strategic Lines	820

Initiatives in NFR

- Advertising
- Rail Display Network (RDN)
- Monetisation of Soft Assets
- Station Redevelopment for revenue
- Monetising land assets
- New Policy for revenue generation
- FM Radio
- Rail Bandhu
- Digital Services

OUTSTANDING DUES DUE TO NOT SIGNING OF LAND LICENSING AGREEMENTS OF SIDINGS				
S.No.	***Railway***	***No. of sidings***	***Agreement not signed***	***Total Arrears (Rs. in Crores)***
1	CR	88	43	0.00
2	ER	64	58	0.51
3	ECR	48	33	84.32
4	ECoR	8	8	14.20
5	NR	128	91	586.72
6	NCR	44	1	15.98
7	NER	11	0	2.15
8	NFR	29	10	9.13
9	NWR	22	10	5.96
10	SR	45	6	0.07
11	SCR	92	7	0.18
12	SER	94	78	330.85
13	SECR	13	0	0.85
14	SWR	22	12	8.39
15	WR	3	3	4.11
16	WCR	62	4	2.21
	Total	**773**	**364**	**1065.63**

Advertising – A professional approach

- Rs. 299 crore approx. in 2015-16.
- Assessment of RITES: Rs. 10,000 Cr.
- Pan India Exercise:
  - RITES appointed as a consultant
  - RITES has selected Ernst & Young as Professional Media Market Evaluation Agency (PMMEA)
  - Assess specific advertising asset value of new static and mobile assets:
    - 112 Stations
    - 112 Rail track side locations
    - 50 pair of passenger trains & Goods wagons as a block
- Scope
  - Formulate a Pan India Railway Commercial Publicity Revenue Enhancement Scheme (PIRCPRES)
  - Develop Software for enabling 'Dynamic Value Assessment' model incorporating all categories of assets as a management support tool.
- Payment
  - Partly fixed charges
  - Balance incentive based

Advertising - contd

- What’ new in this exercise?
  - First time a professional consultant has been roped in.
  - Standard Bid Document has been finalised
  - E-Auction mode of bidding
  - RITES/PMMEA shall be responsible for overall Bid Process Management including road shows for IR
- Role of Railway
  - Contract Packaging scheme prepared by PMMEA will be approved by Board in consultation with Zonal Railways
  - Agreement to be signed by Zonal Railways
- RITES has submitted several packages for approval and bidding through e-auction.
- Inputs for formulation of Policy for commercial advertising in IR.

Rail Display Network (RDN)

- A high tech centralised network.
- An unparalleled largest network in the world
  - More than1 lakh screen in public interface.
  - At more than 2167 Stations.
- Real time flow of information to passengers
- Unlocking huge advertising potential.
- Cloud controlled screens allowing:
  - Same content at the same time all over the country
  - Same content in different languages but at the same time all over the country
  - Different content on each separate screen.
  - 50% of the screen time for arrival/departure, platform berthing, seat availability, etc.
  - 50% of screen time for advertisement.

Rail Display Network (RDN)

- Changing face of advertisement on IR
  - Screens will replace all other mediums of advertising and Railway information.
  - They will have the most visible locations.
  - Audio and Video capabilities to display Video with Voice.
  - Screens of various sizes from small to large video walls display.
  - All other static hoardings and posters from Station Premises will be removed, thereby improving Aesthetics of the station.
  - Multiple advertisements on each display board would bring in larger advertising revenue.
- Railways will save substantial expenditure which it would have incurred for installing similar system of disseminating Railway information.
- Promotes Digital India Campaign of Hon. Prime Minister

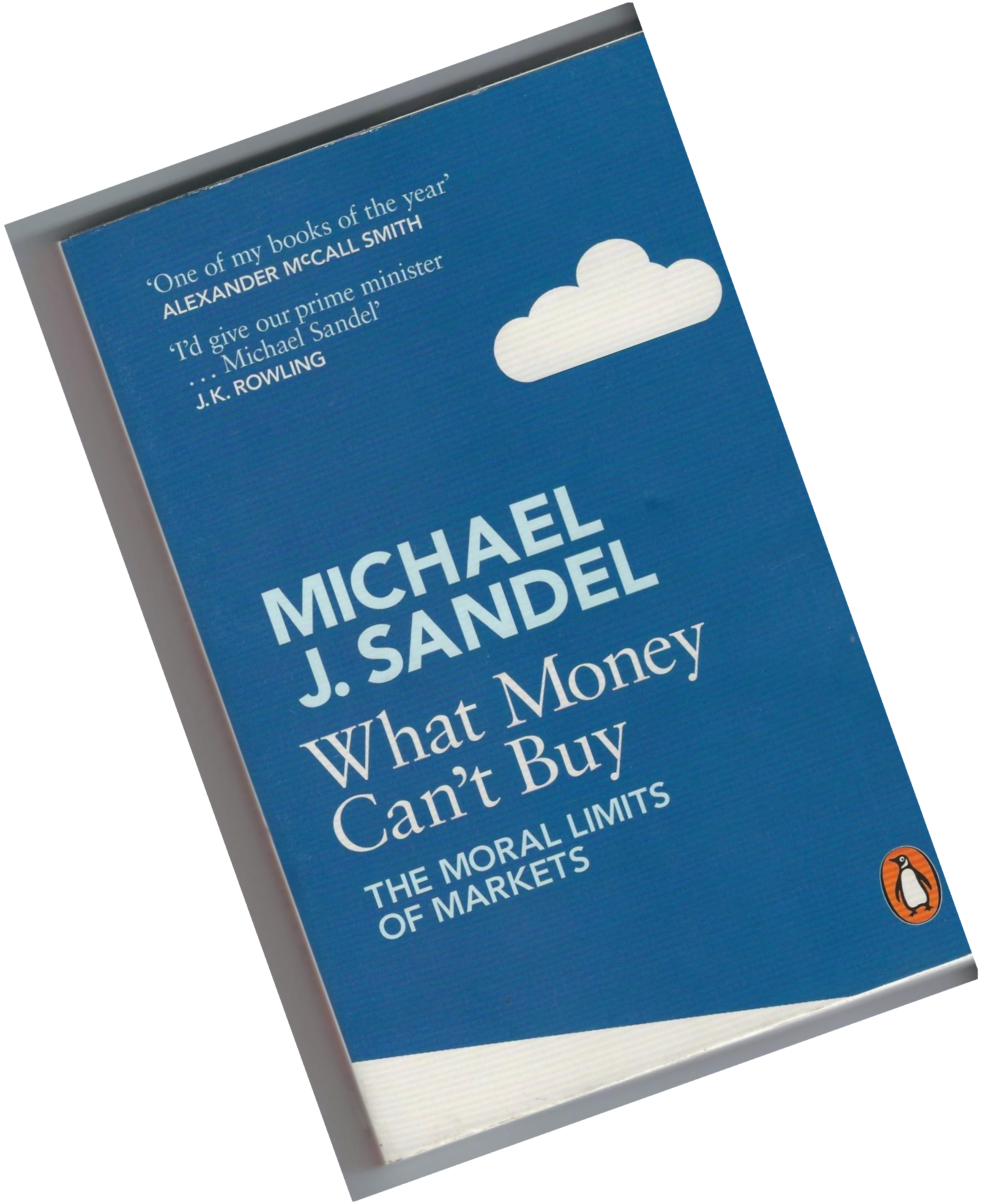
Rail Display Network (RDN)

- Railtel has the OFC network and other technical requirements in position.
- Costs will be limited to setting up a Central Distribution Centre and linking the Network.
- Proof of Concept (POC)
  - 4 partners is being proposed at 4 Greenfield stations
  - Gorakhpur, Old Delhi, Jaipur and Gwalior.
  - 16 other stations are also proposed for testing of the network.
- The POC stations will be ready for launch by October, 2016.
- Four A1 class stations will be showcased as the manner in which RDN will be rolled across all 2175 stations.

- *The right to shoot an endangered black rhino: $150,000.* South Africa has begun letting ranchers sell hunters the right to kill a limited number of rhinos, to give the ranchers an incentive to raise and protect the endangered species.[5]
- *The cell phone number of your doctor: $1,500 and up per year.* A growing number of "concierge" doctors offer cell phone access and same-day appointments for patients willing to pay annual fees ranging from $1,500 to $25,000.[6]
- *The right to emit a metric ton of carbon into the atmosphere: €13 (about $18).* The European Union runs a carbon emissions market that enables companies to buy and sell the right to pollute.[7]
- *Admission of your child to a prestigious university: ?* Although the price is not posted, officials from some top universities told *The Wall Street Journal* that they accept some less than stellar students whose parents are wealthy and likely to make substantial financial contributions.[8]

Not everyone can afford to buy these things. But today there are lots of new ways to make money. If you need to earn some extra cash, here are some novel possibilities:

- *Rent out space on your forehead (or elsewhere on your body) to display commercial advertising: $777.* Air New Zealand hired thirty people to shave their heads and wear temporary tattoos with the slogan "Need a change? Head down to New Zealand."[9]
- *Serve as a human guinea pig in a drug safety trial for a pharmaceutical company: $7,500.* The pay can be higher or lower, depending on the invasiveness of the procedure used to test the drug's effect, and the discomfort involved.[10]



'One of my books of the year'
ALEXANDER McCALL SMITH
'I'd give our prime minister
. . . Michael Sandel'
J.K. ROWLING
MICHAEL
J. SANDEL
What Money
Can't Buy
THE MORAL LIMITS
OF MARKETS

Data Monetisation

- Committee set up in Board to give recommendations on data monetisation.
- Interactions held with major stakeholders like E&Y, KPMG, Group M, Google etc. to understand market requirements.
- Data classification pertaining to:
  - Functional aspects of Railways
  - Commercial transaction of Railways
  - Customer preferences.
- Identifying potential users of data and likely value of data.
- Stopping the scraping of Railway data by third parties for commercial exploitation.

Data Monetisation

Data available on IR and prospective uses:

- Requirement for accommodation
- Requirement for local travel-cab/bus etc.
- Tourism information
- Catering services
- Requirement of Air travel
- Waitlist status updation
- Retail services

Station Development

- Detailed and market friendly standard bid document for
  - station development
  - station facility management
  - being framed in consultation with NFR Directorate.
- Time frame for release is August 2016.
- Swiss Challenge method.
  - 400 stations to be developed under
- Non Fare Revenue to be a significant component of Station Redevelopment.

FM Radio

***"We propose to invite FM Radio stations for providing train borne entertainment by installing PA systems in trains."* Hon'ble MR in Budget speech.**

- Discussions held with major players to provide equipment and speakers in all 60,000 coaches in a phased manner.
- All speakers can be accessed by Railway Authorities as long as there is internet access.
- Entire cost of installation to be borne by operators.
- Recovery of investment by sale of advertisement space.

THANK YOU!

Pension Management

The Indian Railway Story

Facts and Figures

- Number of pensioners: 14,34,000 (as on 01-04-2016)
- drawing pension from 26 Nationalised Banks
  - Approx 10,00,000 more will be added @ approx 55000 P.A. by 2030
- No single CPAO
  - Pension disbursed through- Banks (95%), State Treasuries (1%), Post Offices (4%).
  - 16 zones nominated to accept/ settle pension debits received from Banks as per regional jurisdiction
  - States are attached with Zonal Railways for Pension Debit purposes
    - Eg. Maharashtra is attached with Central Railway
  - Pension debits in respect of pension disbursed through State Treasuries and Post Offices settled by Railways that issued PPOs.

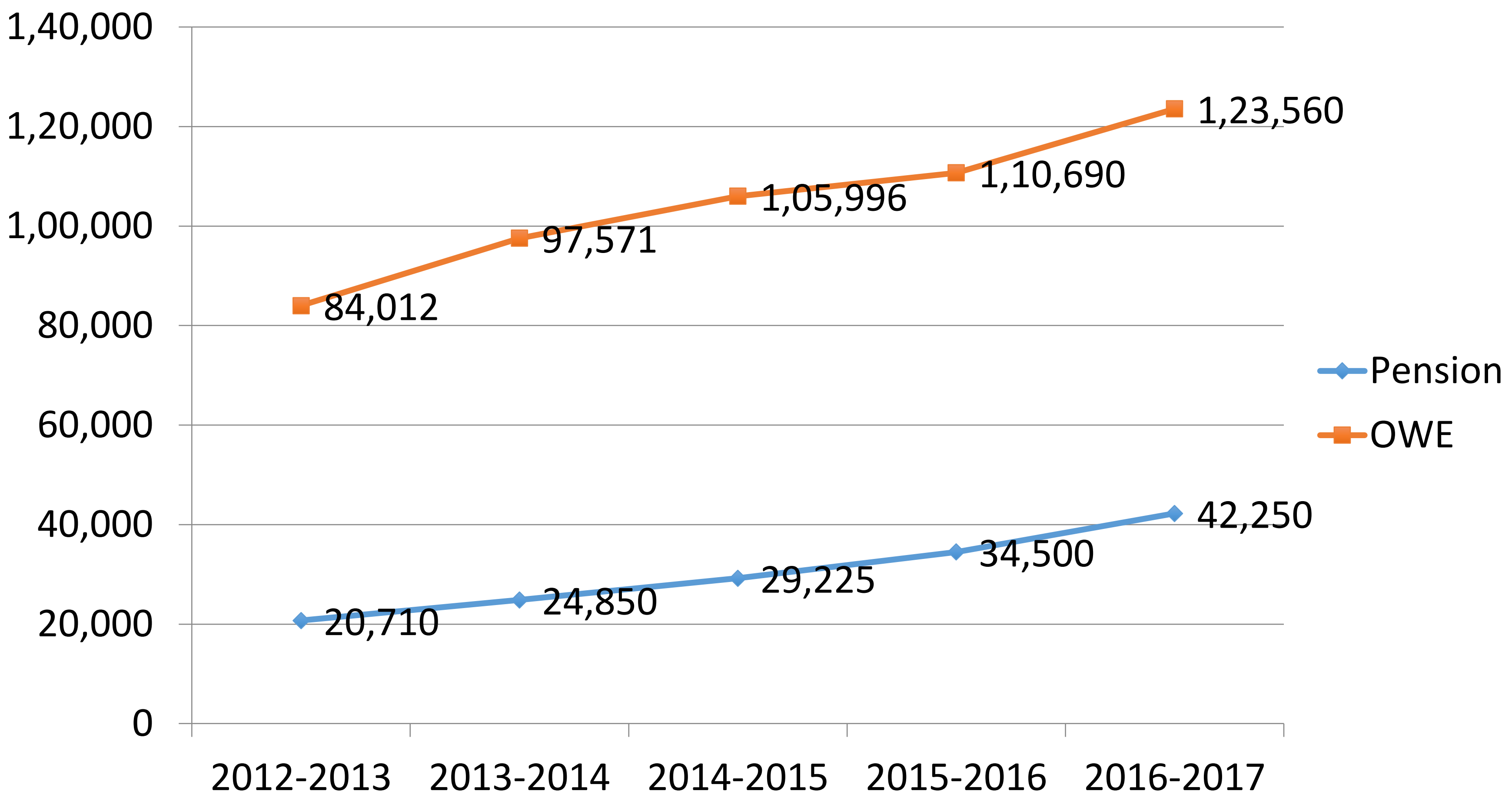
PENSION LIABILITY

- Only ministry of GOI to finance its pension liability
- Budget speech 2015-16 by MR - Accounting reforms Process & greater transparency in financial reporting.
- It includes -Accrual accounting so as to make contribution to DRF on scientific basis & ***Pension Liability on Actuarial assessment basis.***
- ***N***on provision of Pension Liability on accrual basis and Depreciation provision in scientific manner has led to incorrect depiction of Operating Ratio.
- Actuarial Study done in 2005 pointed out huge liability of Rs 5,41,948 crores required for making the pension fund self-sustaining .

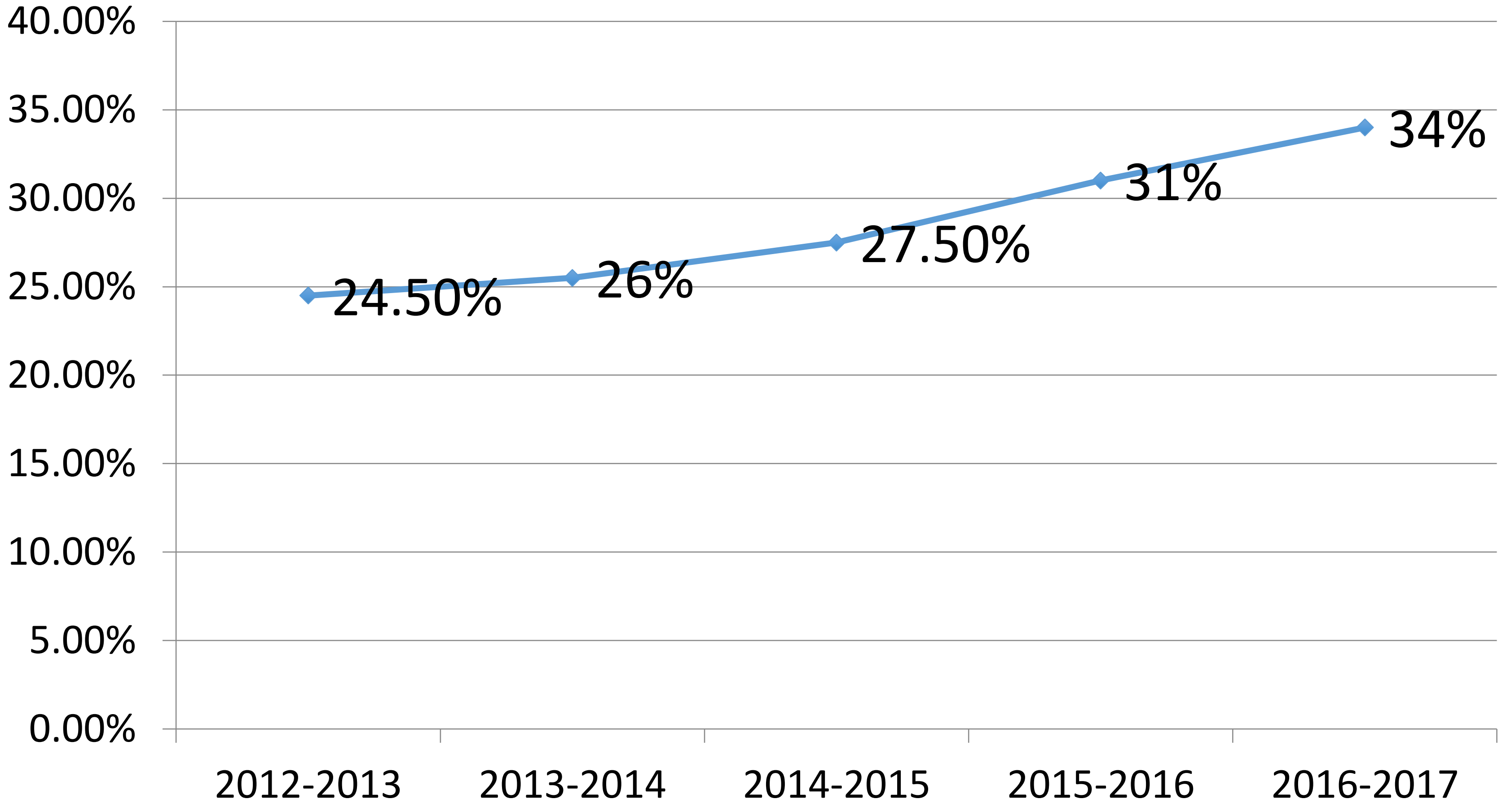
PENSION LIABILITY

- Pension is paid after cessation of service, though the same is earned by the employees during their service period. Thus, it should form the part of cost of Railways' operations etc, in the accounting periods in which it is earned. ***This can be done by appropriate debit to P&L and by keeping the provision at the Liability side of the Balance Sheet in the Pension Fund.***

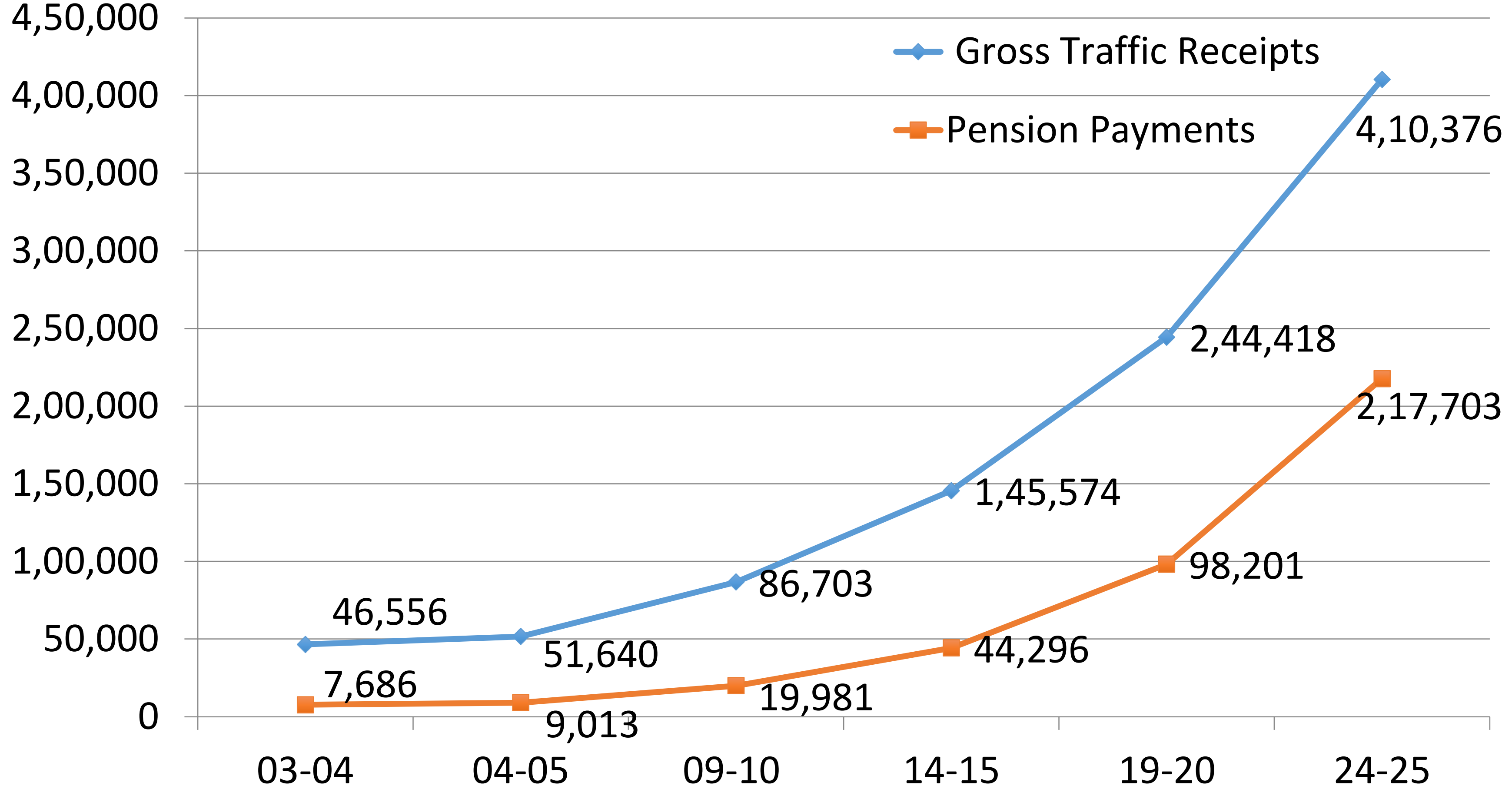
OWE and Pension Expenditure



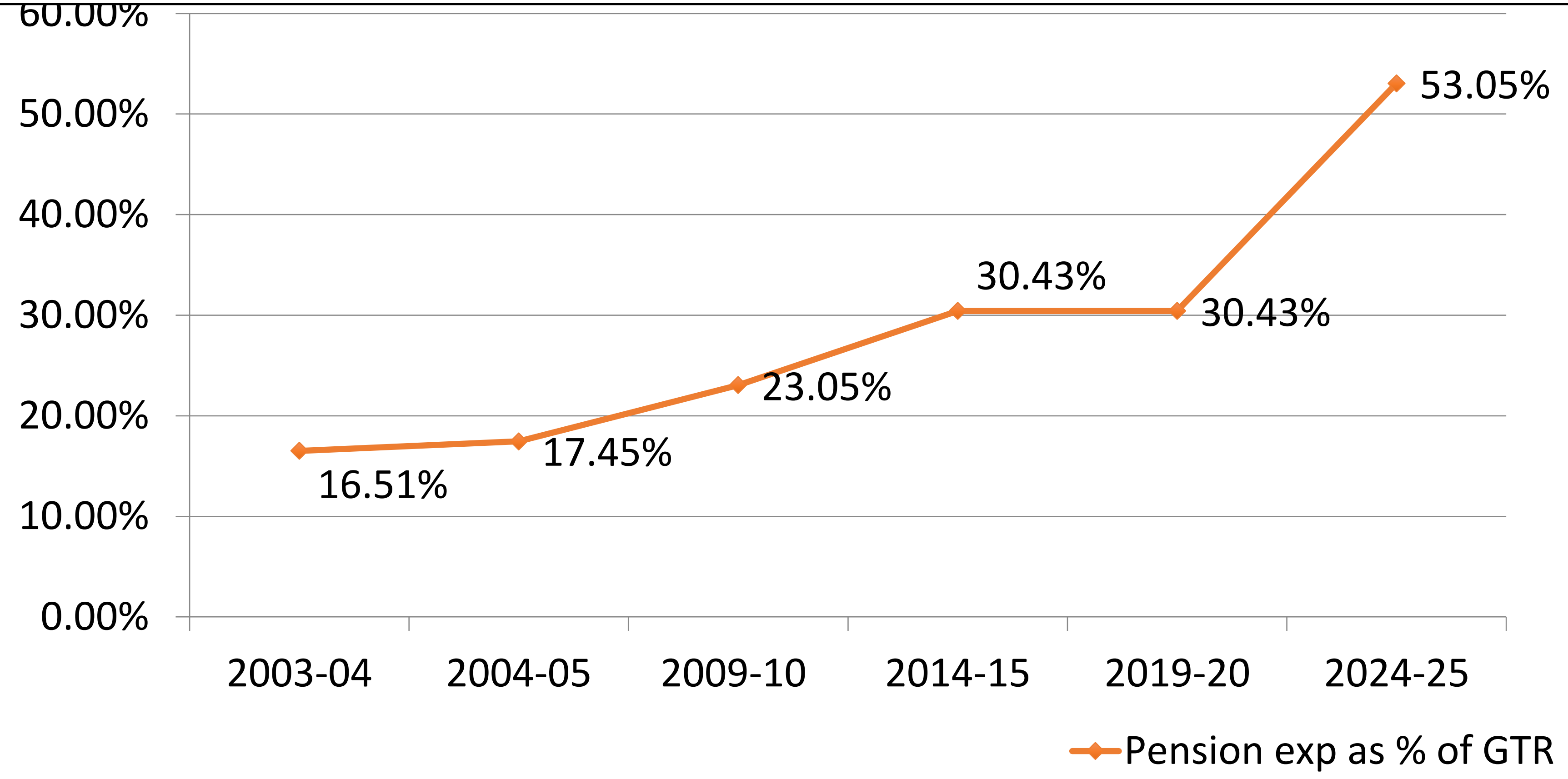
Expenditure on Pension as % of OWE



Pension Exp Vs Gross Traffic Receipts



Pension Exp Vs Gross Traffic Receipts



PENSION LIABILITY

- GTR is growing at a rate of 10.92 % p.a whereas pension expenses are increasing annually at a rate of 17.26%. Rlys will spend about 1/4th of its earnings on Pension by the end of this decade, & by 2024-25, IR may have to spend more than half of earnings as pensions.
- Longevity is increasing.
  - Increase in Additional pension liability
- major portion of employees are between age group of 50-59 years. (Sample data: WR)
- Number of retirees (superannuation) will continue to be @ 3.8% of working strength i.e 48000 Per annum
- In addition the number ONR cases occurs each year is about 7,000 cases (death ,Voluntary etc)
- Out of 13.25 Lakh working strength 10 Lakh employees still governed under old Pension scheme which are to be added to the present pensioners list @ 4% each year. By considering deceased pensioners accounts, net increase in number of pensioners is about 30,000 (2.5%) per annum.

Challenges

- Ineffective reconciliation process
  - Problem of watching recovery of overpayments
- Challenge of accurate budgeting
- Challenge of frequent revisions and revisions due to pay commissions.
- Grievance redressal mechanism.
  - Delays in start of pension disbursement.
- Postal and treasury pensioners (53,204+4,409)

RECONCILIATION-MATCHING OF DEBIT SCROLLS

SL	BANK PROVINDING E-SCROLLS	e_Scroll in ARPAN Format	e_Scroll in other Format	Bank master data	Total Pensioners data(e-format)	Matched PPOs	Match PPO (%)	Mismatched PPOs
1	ALLAHABAD BANK	55390			55390	36035	65	19355
2	ANDHRA BANK		22972		22972	12450	54	10522
3	BANK OF BARODA	68200			68200	48865	72	19335
4	BANK OF INDIA	0	73321		73321	33120	45	48812
5	BANK OF MAHARASHTRA	40500			40500	24850	61	15650
6	CANARA BANK	0	44669		44669	20085	45	24584
7	CENTRAL BANK OF INDIA	92300			92300	49000	53	43300
8	ORIENTAL BANK OF COMMERCE	0	3340		3340	2290	69	1050
9	PUNJAB NATIONAL BANK	115750			115750	56800	49	58950
10	STATE BANK OF INDIA	537700			537700	398000	74	136000
11	STATE BANK OF HYDERABAD	23350			23350	14810	63	8540
12	STATE BANK OF MYSORE	0		6000	6000	2700	45	3300
13	STATE BANK OF BIKANER& JAIPUR	35104			35104	20194	58	14910
14	STATE BANK OF PATIALA	10600			10600	5616	53	4984
15	STATE BANK OF TRAVANCORE	8560			8560	5015	59	3545
16	UNITED BANK OF INDIA	0		52275	52275	24700	47	27575
17	UNION BANK OF INDIA	0		38520	38520	16120	42	22400
18	UCO BANK	0		49120	49120	22420	46	26700
19	VIJAYA BANK	4200			4200	2720	65	1480
	TOTAL	**9,91,654**	**1,44,302**	**1,45,915**	**12,81,871**	**7,91,790**	**61**	**4,94,992**
	% of Total PSB pensioners(13.76 Lakh)				**93%**			
	Total e-Scrolls data				**11.36 Lakh**			
	Total Master data				**1.46 Lakh**			

ESCROL L: Contain PPO number and Payment related details(Basic,DA,Commuatation,Recovery etc)

Master : contains PPO number and personal details(Address,Aadhar,PAN.Contact ,DOB etc)

Status: Matching of Scroll Data with ARPAN master

Bank	Total number of Pensioners	Matched records as on	%	Matched records as on	%	Un-Matched records as on	Target date
		31-05-2016		31-07-2016		31-07-2016	
SBI	535750	334000	62%	398000	74%	136432	30-06-2016
PNB	115235	55693	48%	65785	57%	49450	31-07-2016
BOB	62458	38482	62%	43378	69%	19080	31-08-2016
BOM	40716	25214	62%	25593	63%	15123	31-08-2016
Total	**754159**	**453389**	**60%**	**532756**	**71%**	**220085**	

PPO-ZONE-WISE MIS-MATCHED SBI DATA

SL	PPO_ZONE	Mismatched data as on 31-05-2016	Mismatched data as on 31-07-2016
1	CR	11790	7911
2	ER	15439	5349
3	ECR	15457	4896
4	ECOR	10491	6872
5	NR	17980	17980
6	NCR	9676	8567
7	NER	15557	15346
8	NEFR	6658	2905
9	NWR	5510	4825
10	SR	9927	1924
11	SCR	9659	8976
12	SER (***)	15610	10095
13	SECR	8515	3250
14	SWR	2023	1629
15	WR	4961	2813
16	WCR	8544	6518
17	DLW	3921	3921
18	CLW	5560	5560
	Mismatched data	**177278**	**119337**
	Unclassified PPO	17095	17095
	Total mismatched	**198750**	**136432**
	Total matched (out of 5,32,750)	**334000**	**398000**
	Matching %	**62%**	**74%**

***SER : About 5,000 data received from SER is under process of porting to ARPAN

DEBIT ZONE WISE SBI MIS-MATCHED UNCLASSIFIED DATA

SL	DEBIT_ZONE	Mismatched data as on 31-07-2016
1	CR	815
2	ER	1982
3	ECR	2054
4	ECOR	131
5	NR	2773
6	NCR	3145
7	NER	47
8	NEFR	232
9	NWR	1386
10	SR	167
11	SCR	288
12	SER	2055
13	SECR	154
14	SWR	142
15	WR	112
16	WCR	1612
	Total	**17095**

Reconciliation

- Challenges
  - Availability of debit scroll data in ARPAN
  - Slow response of banks in providing debit data
  - Difficulty in matching debit data with master
    - Errors in PPO number as provided by banks
    - Absence of updated Bank account numbers in Pension Master
    - All zones followed non uniform PPO No Scheme due to which there is no common identifier of PPO

Age-wise analysis based on scroll data

Age group	Pension	% of Total Pensioners	Family Pension	% of Total Pensioner	Total
60 Years and Less	65,000	4	1,01,500	7	1,66,500
60 and < 70	3,78,500	26	2,04,000	14	5,82,500
70 and < 80	3,19,500	22	2,30,000	17	5,49,500
80 and < 90	1,04,000	7	25,000	2	1,29,000
90 Years and above	4,000	0.28	2,500	0.17	6,500
Total	8,71,000	60	5,63,000	40	14,34,000

Age analysis as per 7th CPC

SL	BANK	e-Scrolls pensioners	Less than 80 yrs age	80-90 years age	90+ age
1	ALLAHABAD BANK	55390	49590	5619	181
2	ANDHRA BANK	22972	21032	1859	81
3	BANK OF BARODA	68200	62305	5662	233
4	BANK OF INDIA	**73321**	65677	7531	113
5	BANK OF MAHARASHTRA	40500	38395	1968	137
6	CANARA BANK	44669	40792	3518	359
7	CENTRAL BANK OF INDIA	92300	84030	8052	218
8	ORIENTAL BANK OF COMMERCE	3340	3127	175	38
9	PUNJAB NATIONAL BANK	115750	105245	9845	660
10	STATE BANK OF INDIA	536793	497490	35257	4046
11	STATE BANK OF HYDERABAD	23350	21791	1472	87
13	STATE BANK OF BIKANER& JAIPUR	35104	31775	3100	229
14	STATE BANK OF PATIALA	10600	9869	659	72
15	STATE BANK OF TRAVANCORE	8560	7853	593	114
16	VIJAYA BANK	4200	3811	370	19
	TOTAL(80% PENSIONERS COVERED)	**1135049**	**1042782**	**85680**	**6587**
	Percentage to total scroll data		**92%**	**7.50%**	**0.5%**
	As per Pay Commission Report		79%	16.50%	4.50%
	As per ARPAN Master (Legacy)		83%	13.50%	3.50%
	National average (Govt of India)		89%	11%	

7th PC Revision for Existing Pensioners

Figures in Crores

Basic Pension	Revised Basic (multiplying factor 2.57)	Old age Pension	FMA	Total	Total per annum	6% DR expected in 2nd half	Total 2016-2017
1	2	3	4	5(2+3+4)	6	7	8 (6+7)
842 **	2,164	40	40	2,244	26,928	684	27,612
** Actual Exp based on Sep'2015 IR Scroll for one month is 1859 crores which includes basic pension plus Dearness Relief @119% and component of old age pension and Fixed Medical Allowance. After extracting these components from total expenditure, the basic pension component works out to Rs.842 cr per month (1859/2.20 = 842 cr)							

Budgeting for 2016-17 including 7PC revision

	Particulars	Number of Pensioners	Total Annual Liability (Cr)	Impact
I	Existing Pensioners (14,50,000)	14,34,000	27,612	(+)
II	New Pensioners during the year	55,000	400	(+)
III	Approx. 12,750 cases @1.5 %of pensioners convert to family pension	12,750	150	(-)
IV	Approx.26,000 cases close each year	25,000	400	(-)
Total		14,64,000	27,462	21% increase over 15-16
Note : This does not include Settlement dues (DCRG, Commutation, Leave Encashment ,CGEGIES etc)				

Number of IR Pensioners

GROUP	Pensioners	Family Pensioners	Total	%
A	5,100	3,500	8,600	0.6%
B	10,400	7,000	17,400	1.2%
C	7,18,000	4,50,000	11,68,000	81.5%
D	1,37,500	1,02,500	2,40,000	16.7%
Total	**8,71,000**	**5,63,000**	**14,34,000**	

Way Forward

- Debit scroll data has been forwarded to all zones for matching
  - Target set for completion of this exercise is
- All remaining banks are being impressed upon to adopt eDebit scroll and ePPO
- ARPAN is being readied to tackle 7th PC revision
- Banks have been asked to share AADHAR Nos of pensioners – to enable ‘Life Cert’ collection and direct payment
  - Approx 3.75 lakh AADHAR No have so far been collected

Direct Payment

Pro

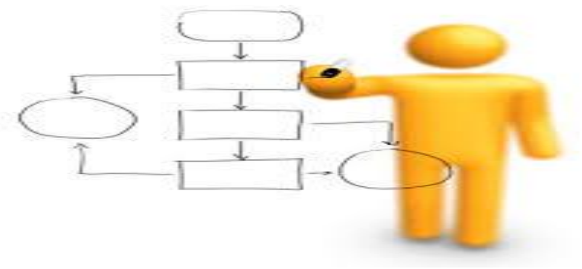
- Possible with accurate master
- Being done for death cases of NPS subscribers
- NO NEED for reconciliation
- Greater accuracy and control over payments.
- Ease of revisions.
- ARPAN is capable

- Monthly payment data will have to be sent bank for electronic payment
- Handling of failed transactions.
- Income Tax - issue of Form 16
- Problem of collecting 'Life Cert'
- Loss of human interface for pensioner.
- Costs

- Award for Best Innovation given by ORACLE

- Award of Appreciation received from Computer Society of India for the year 2014-15

THANK YOU



Appraisal of Projects Funded Through Debt - Indian Railways

S. K. Agarwal
Senior Vice President
SBI Capital Markets Ltd

SBI Capital Markets Limited

Ranked No. 1 by

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Project Financing

The projects funded through debt should be evaluated adhering to the project financing principles

Project Financing for PPP based development is specialized financing; different from the traditional On-Balance Sheet Funding

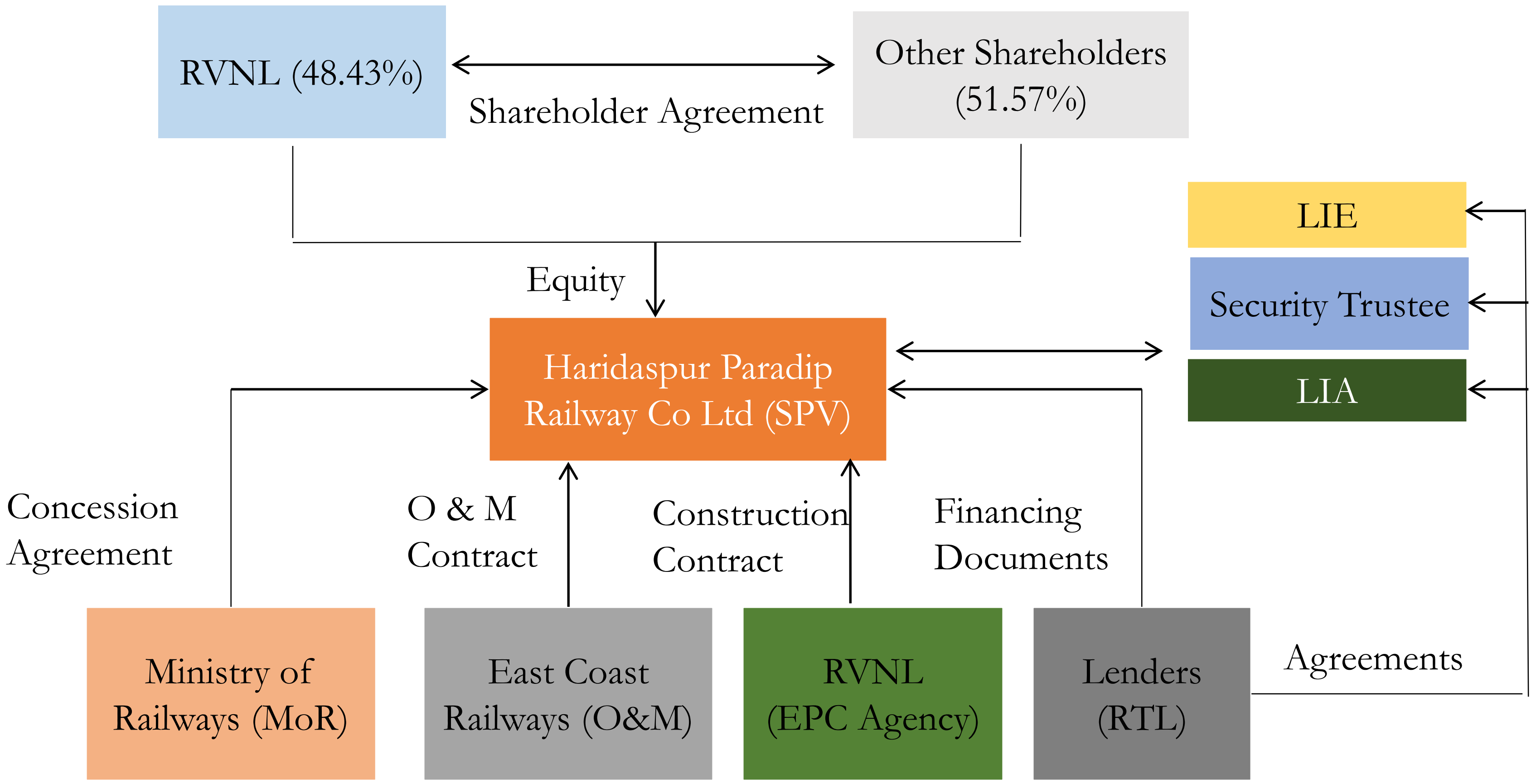
Project Finance

- Borrower is the Project SPV
- Based on the merits & viability of the Project
- Cash flows from the Project alone are assessed
- Ring-fencing of the cash flows
- Non /Limited recourse to the Promoter
- Charge on assets/pledge of shares as security
- Tenor funding
- Outlook for viability based on Project life (Concession period)
- Concession Agreement is the governing document

Traditional On Balance Sheet Funding

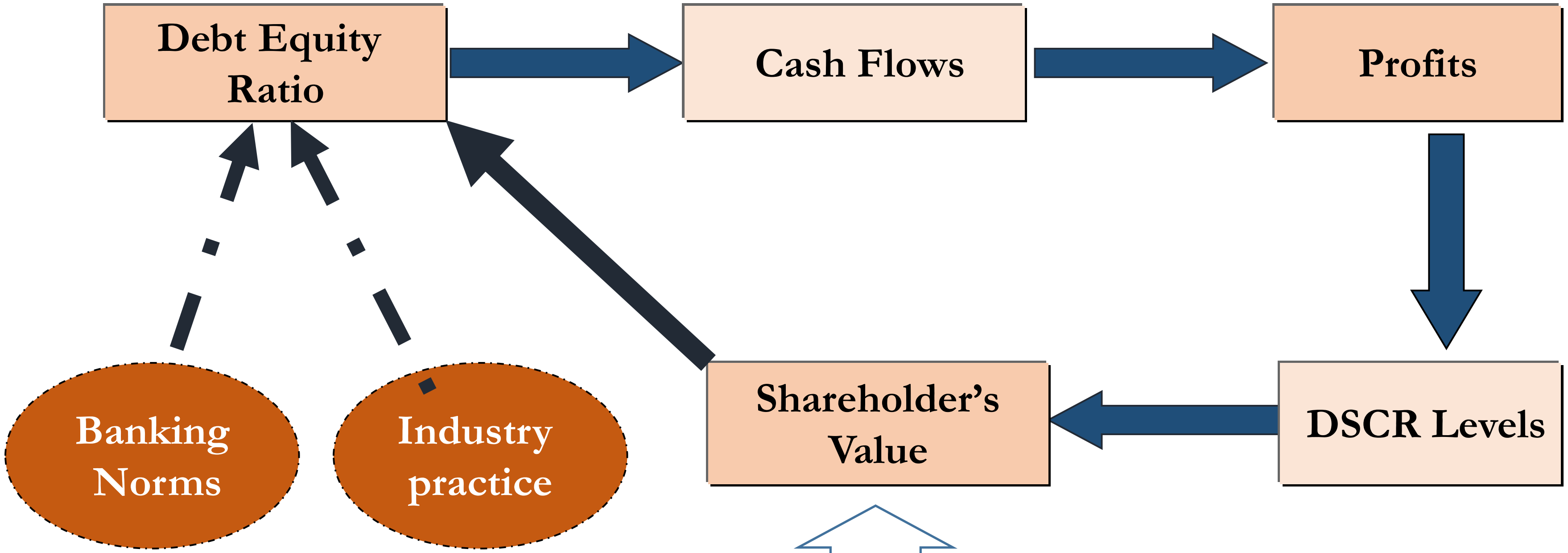
- Borrower is normally a company
- Funding based on company's overall strength
- Cash flows from all sources are assessed
- Ring fencing of cash flows is not possible
- Full recourse funding
- No Pledge of Shares
- Revolving credit, especially working capital
- Outlook on going concern principal
- Separate documents governing different cash flows and debt

Type of Project	Financing Structure
Greenfield Viable Projects	❖ Private participation could be encouraged through PPP model ➢ Project SPVs be formed with ring fencing of project cash flows through a Escrow mechanism ❖ In the interim, Railway PSU's like IRFC, RVNL, IRCON to be roped in for implementing such projects ➢ Adopt annuity repayment structures for investment/ development work undertaken by Railway PSUs
Brownfield viable projects	❖ JVs with state governments to be incorporated to implement projects critical to the states ➢ Railway's stake limited to the equity invested in the JV ❖ NBFC/IRFC may raise funds which may be utilized for investing in such projects ➢ Investments by IRFC may initially be with no recourse on project cash flows with fixed payments being made by Railways; ➢ Subsequently funding should be based on project cash flows
Un-viable but essential projects	❖ Gross Budgetary Support (GBS)/Internal accruals to be primarily utilized for such projects



*HPRCL incorporated as an SPV for developing, financing, construction, operations and maintenance of **82 km broad gauge single railway line between Haridaspur - Paradip stations in Orissa***

- To establish direct link between the iron-ore rich areas of Orissa viz., Barbil region to Paradip Port



To be the determining factor by IR for decision making

- Currently Railways follows IRR > 14%
  - As entire funding is from GBS, Project IRR & Equity IRR are same
- Equity IRR is to be calculated when availing debt funding
  - Due to leveraging effect, EIRR would improve

Debt Service Coverage Ratio (DSCR)

- **DSCR determines the debt servicing capability of the Project**
  - Most important ratio assessed by the lenders as it ensures the timely repayment of the loan to lenders

- DSCR is the ratio determining the availability of funds against the debt obligations (interest + repayment)

DSCR = Cash available for Debt Servicing / Debt Obligations

i.e.

DSCR = (PAT + non-cash expenses + Interest paid) / (Debt repayment + Interest paid)

- DSCR of more than 1.00 shows availability of sufficient funds to meet the debt obligations
  - Thus the higher the DSCR, the better it is

- Range of acceptable DSCR based on sector and kind of project.
  - For example, for toll road projects acceptable DSCR is Average DSCR > 1.50 - 1.75 and min. Yearly DSCR > 1.20 – 1.30

IRR is the discount rate at which the NPV of cash inflows is equal to NPV of cash outflows; Used to evaluate the desirability of investments

Project IRR (PIRR) : Return earned on total investment (Debt + Equity)

- PIRR is the discount rate at which NPV of project level returns (EBIDTA less Tax) is equal to total project investments (Debt [less IDC] plus Equity)
- PIRR is thus independent of Financing Structure
- Investment Decision Rule: PIRR should be more than Weighted Average Cost of Capital (WACC)

Equity IRR (EIRR) : Return earned on equity investment

- EIRR is the discount rate at which NPV of returns available to equity holders (EBIDTA less Tax, Interest & Debt Repayment) is equal to total equity investments
- Investment Decision Rule: EIRR should be more than the Cost of Equity (Hurdle Rate)

Project Investment = **Debt *Less* IDC** + **Equity**

Though capitalized, IDC is actually paid to lenders and not used in project implementation per-se and thus is subtracted

Total Project Returns = **Revenue *Less* (Opex + Tax)**

Project IRR is discount rate at which PV of Project Investment = PV of Total Project Cash inflow

PIRR should be > Weighted Avg. Costs of Debt & Equity (WACC)

Equity Returns = **Total Project Returns *Less* (Interest + Debt repayment)**

Equity IRR is discount rate at which PV of Equity Investment = PV of Equity Returns

EIRR should be > Cost of Equity (Hurdle Rate)

Generally for a viable project Equity IRR > Project IRR > WACC

Exhibiting, Project earnings are more than the fixed cost of debt and after meeting the debt obligations positive returns are left for the equity investors

Current Hurdle Rate for Railways: 14%

- Ministry of Finance has set 12% as the required rate of return on capital investment in projects i.e. a project is considered to be remunerative for investment only if it yields more than 12% rate of return.
- Ministry of Railways has set this Hurdle Rate at 14% due to its payment obligations related to dividend payment by IR to GOI, cost of capital raised through IRFC etc.
- Accordingly, the Hurdle Rate of 14% is measured against the IRR for the project (as it is entirely GBS funded, the Project IRR is equal to Equity IRR) for making an investment decision.

Impact of Debt Funding

- If a project is financed through debt and equity in the ratio of 70 : 30 with the cost of debt being 8.50% p.a, cost of equity being 14%, the WACC will reduce to 9.60% on account of Leveraging Effect

- For the investment decisions, the Project IRR is to be measured against the Weighted Average Cost.
- While Project IRR would remain unchanged, Equity IRR will be higher than Project IRR
- Further, due to the usage of low cost debt funds, for a profitable venture, the Equity IRR for the Project would be more than the Project IRR.

- Eg: Project evaluation for 3rd line between Site A-Site B
  - **Case A:** Project Cost is funded 100% through Equity (GBS/ Internal Accruals etc.)
  - **Case B:** Project Cost is funded in 80:20 Debt-Equity ratio; Debt availed through LIC line of credit

Particulars	Case A	Case B	Remarks
Project Cost	4,551	5,116	Case B cost is more due to inclusion of IDC
Equity	4,551	910	GBS / Internal Accruals
Debt	N.A	4,206	Availed through LIC line of credit
Ratios : Based on the revenue and cost estimation by MoR (Same for both Cases)			
Project IRR	14.19%	14.19%	PIRR is funding agnostic as it denotes the returns on total investment (irrespective of the funding structure)
WACC	14.00%	9.60%	Comparative rate for investment decision for PIRR
Inv. Decision.	Yes	Yes	
Equity IRR	14.19%	25.05%	EIRR improves in Case B due to leveraging effect
Hurdle Rate	14.00%	14.00%	Comparative rate for investment decision for PIRR
Inv. Decision.	Yes	Yes	
Return after GoI dividend	10.87%	22.97%	Considering payment of divided to GoI @ 6% p.a. during operations period; akin to an interest payout
DSCR	N.A	2.60	Ratio analyzed by lenders to ensure debt serviceability

Case A : 100% Equity Funding

- Dividend is payable only when the project earns profit
- No cumulation of dividend during construction period (i.e. IDC) or during the loss years
- Further, the equity invested is for perpetuity and is not to be repaid

- A perpetual payment of dividend eventually leads to considerable cash outflows
- Absence of fixed obligations like interest / debt payments leads to lack of financial discipline to complete the project in envisaged time & cost as well as operating it efficiently

Case B : Funding through a mix of Debt & Equity

- Inculcation of financial discipline due to presence of fixed costs and accountability to lender
- Better returns on equity investment (i.e. higher EIRR) due to leveraging effect
- At a typical D:E funding in 80:20 ratio, same amount of equity can fund projects upto 5 times of capital outlay (vs. funding a project through 100% equity)
- A time-bound debt repayment leads to limited cash outlay vs perpetual dividend payments

Any project found viable for investment (i.e. IRR > 14%) as per the current practices of IR would

- Have sufficient debt payment capacity on being funded through a mix of debt & equity; and
- Have higher EIRR as compared to the existing estimate (based on 100% equity funding)

Projects of higher quantum could be undertaken through a mix of debt & equity

Financial Parameters for Assessment

- Certainty of Cash Flows
- Comfortable Debt Service Coverage Ratio (min DSCR ~1.1, Avg. DSCR ~ 1.35-1.50)
- TOL: TNW not exceeding 3:1.
- FACR not below 1.30 times
- Post tax IRR for returns to Project (more than Interest Rate) and returns to Equity

IR Advantage

- Cash Flow analysis undertaken based on Indian Railway Finance Code
- Preference to projects with IRR more than 14%

IR Challenges

- Project cash flows to be based on detailed traffic studies
  - Conservatism on the form of ramp up of revenue , indexation of operating cost etc to be built
- When availing debt financial ratios should be calculated
  - Sensitivity analysis by simulating project parameters to be undertaken
- Usage of debt would improve equity IRR on Railway's equity investment

Project Cost Estimates

- Estimation by experts (Department/Consultant), based on scientific basis (item & rate wise estimation) & benchmarked to past actuals results
- Inflation linked cost increase in prices and built-in contingency provision
- Envisaged soft costs, based on type of funding, loaded appropriately on construction costs
- Comprehensive monitoring mechanism for periodic review of cost incurred and mid-term revisions

Project Execution

- Planned approach with strict & monitor able milestones to be in place
- Execution responsibilities should be fixed & managers must report on the progress on periodical basis
- Similar to cost monitoring, execution should also be monitored on periodic basis

Revenue Estimation/Cost Savings

- Revenue to be based on specific traffic study conducted by independent department/consultant
- Savings in cost to be determined through comparative cash flow analysis
- The growth in cash flows to be based on econometric models

Project Monitoring

- Cautious estimations; past actual realizations could serve as benchmarks
- Escalations based on inflation etc. should be taken in the operating expenses, especially for the dependent factors like manpower costs

Borrower	SPV undertaking the Railway Project
Project	The specified Railway Project
Project Cost	Assessed Project Cost to be financed by Debt and Equity in the DER (generally 70:30)
Facility	Rupee Term loan
Tenor	Door to door tenor of ~25 years (now can extended upto 80%of the Concession Period/Economic Life of assets including the construction period of ~3-4 years and moratorium period of 1year post COD
Interest Rate	~10.50-12.50% linked to the Base Rate of the lender, payable monthly
Repayment	Depending upon cash-flows. Principal repayment in quarterly installments. Repayments can be ballooned, if required, in case the cash flows are not evenly spaced
Security	-Pari passu first charge on all the present and future immovable (Except Project Assets) and moveable fixed assets of the SPV; -All future proportionated revenue collection and other project revenues; -Assignment of all Project Agreements, contractor guarantees, letters of credit, performance bonds and liquidated damages, and insurance policies -Pledge/ NDU/ Negative Lien of shares
Other terms	Condition precedents, Financial Covenants, EODs, Penalty charges etc.

THANK YOU

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MoR evaluates the projects based on the Hurdle Rate of 14%

- **14% comprises of**

12%	Rate of return prescribed by MoF for any public spending
2%	Margin for meeting payment obligations related to dividend payment to GoI, cost of capital raised through IRFC, overheads etc.

- **Review of the current Hurdle Rate is required**
  - Requirement of the additional margin of 2% above the MoF determined 12% rate of return is to be assessed
    - Payment of dividend to GoI is @ 6% only; Further it is applicable in the profit years
    - Cost of capital raised through IRFC ~ 8.5%
    - Overheads are already accounted for in the Rate of Return of 12%

The IRF Code prescribes for **Test of Remunerativeness** for undertaking the project investments

"The net financial gain expected to accrue from a project may be either by way of ***savings in expenditure*** *or* ***increase in the net earnings*** *(i.e., gross earnings less working expenses), or a combination of both."*

- Exception - residential buildings, assisted sidings and rolling stock

Thus all type of projects could be considered for investment

Projects having a clear revenue and cost stream

- Projects like new-line development, doubling/tripling etc. have clear revenue & cost streams (both construction & operating costs)
- Investment is based on the IRR based on the clear cash flows

Projects having an unclear revenue and cost stream

- Projects like lengthening of loops, signaling, electrification etc. have no clearly demarcated revenue and operating costs
- The investment in construction cost could be compared with inflows (individual or a combination) from:
  - Incremental revenue accruing due to improvement in infrastructure (like loop extension, increased throughput of trains due to automatic signaling etc.)
  - Savings in the operating costs (like electrification, signaling, better customer terminal ops. etc.)
- Comparative schedule of cash flows should be made to ascertain increase in revenue or saving in costs
- In cases involving savings in cost, as no actual cash inflow is being generated, for availing debt, an equivalent cash stream (in form of annuity) should be earmarked/escrowed for debt servicing

- Eg: Project evaluation for a hypothetical electrification project
  - **Case A:** Existing situation of cash flows – Project Cost is funded entirely by equity
  - **Case B:** Cash flows including savings in Opex - Project Cost is funded entirely by equity
  - **Case C**: Cash flows including savings in Opex – Project Cost funded in 80:20 Debt-Equity ratio

(Rs. Crs.)

Particulars	Case A	Case B	Case C	Remarks
Project Cost	100	100	100	Case C cost > Case B or A cost due to inclusion of IDC
Equity	100	100	20	GBS / Internal Accruals
Debt	NA	NA	80	Availed through LIC line of credit
Project Cash Flows				
Initial Revenue	28	28	28	Assumed to be constant in all cases; increase by 5% yearly
Opex %	60%	50%	50%	10% Saving in opex assumed for Case B & Case C
Project IRR	12.83%	14.82%	14.82%	Denoting Project level returns
WACC	14.00%	14.00%	9.60%	Comparative rate for investment decision for PIRR
Inv. Decision.	No	Yes	Yes	
Equity IRR	12.83%	14.82%	26.15%	EIRR improves in Case C due to leveraging effect
Hurdle Rate	14.00%	14.00%	14.00%	Comparative rate for investment decision for PIRR
Inv. Decision.	No	Yes	Yes	
Return after GoI dividend	9.76%	11.95%	24.24%	Considering payment of divided to GoI @ 6% p.a. during operations period; akin to an interest payout
DSCR	NA	NA	2.95	Ratio analyzed by lenders to ensure debt serviceability

(Rs. Crs.)

Details of Principle Received and IDC Built Up:

Particulars/Yr Ending	3/31/2015	3/31/2016	3/31/2017	3/31/2018	3/31/2019	3/31/2020	3/31/2021	3/31/2022	3/31/2023	3/31/2024	3/31/2025
Principle Amount Received	-	17,000	20,000	20,000	20,000	23,000	-	-	-	-	-
IDC Built Up during Moratorium	-	1,044	2,682	4,311	5,945	7,823	6,798	5,146	3,512	1,879	-

Details of Payments to be made by IR:

Particulars/Yr Ending	3/31/2021	3/31/2022	3/31/2023	3/31/2024	3/31/2025	3/31/2026	3/31/2027	3/31/2028	3/31/2029	3/31/2030
Interest Payments	1,893	4,325	6,758	9,190	11,988	10,095	7,662	5,230	2,797	
EMI Payments						2,379	5,436	8,493	11,550	15,066
Total Payments	**1,893**	**4,325**	**6,758**	**9,190**	**11,988**	**12,474**	**13,098**	**13,723**	**14,348**	**15,066**

Particulars/Yr Ending	3/31/2031	3/31/2032	3/31/2033	3/31/2034	3/31/2035	3/31/2036	3/31/2037	3/31/2038	3/31/2039	3/31/2040
Interest Payments										
EMI Payments	15,066	15,066	15,066	15,066	15,066	15,066	15,066	15,066	15,066	15,066
Total Payments	**15,066**	**15,066**	**15,066**	**15,066**	**15,066**	**15,066**	**15,066**	**15,066**	**15,066**	**15,066**

Particulars/Yr Ending	3/31/2041	3/31/2042	3/31/2043	3/31/2044	3/31/2045	3/31/2046	3/31/2047	3/31/2048	3/31/2049	3/31/2050
Interest Payments										
EMI Payments	15,066	15,066	15,066	15,066	15,066	12,687	9,630	6,573	3,516	-
Total Payments	**15,066**	**15,066**	**15,066**	**15,066**	**15,066**	**12,687**	**9,630**	**6,573**	**3,516**	

- **Private Funds could be brought in for development through PPP route**
  - **Strategic Rail Corridors**
    - Strategic rail Corridors could be designed to connect the metros and other major cities in India
      - ✓ Mumbai – Ahmedabad HSR could be brought on PPP mode
    - Advent of the high speed trains could aid to the development
      - ✓ PM's vision on Bullet Trains could be realized
  - **Operations and repairs contracts of the existing routes**
    - Existing viable routes can be given to private players on OMT basis with bidding based on upfront capex payment and annual premium payment to IR
    - Effectively securitizing the future receivable to generate funding to be spent on development of more routes
  - **Station Modernization and Maintenance**
    - Railway stations enjoy considerable locational advantage - Can be revamped into hubs providing multi facilities (Similar to Airports)
    - Seamless multi-modal transport hubs- connection through metros / local trains, dedicated development for cabs / multi-level parking
    - Retail operations- Shops / Mall, food courts generating non-rail revenue
    - Cargo handling and logistics- Mechanization of loading / unloading operations, container services, limited time warehousing etc.

Options to be undertaken to leverage the existing structures or development on PPP basis

Incorporation of NBFC

- Strengthening IRFC or supplementing it with an NBFC
- To provide long term debt funds to the Sector

Tapping the Capital Markets

- Bringing railway companies under Holding Company structure
- Listing of unlisted entities / Stake sale in listed entities

- **IRFC to be strengthened** to undertake funding to a larger array of railway projects

  alternatively,
- **A sector specific Non-Banking Finance Company (NBFC) may be incorporated**
  - NBFC to work complementary to the incumbent IRFC for providing funds
- The **objective** of NBFC could be to:
  - Fund the on-going expansion and modernization of projects in railway sector
  - Fund the new projects conceptualized under the participative routes or otherwise
  - To use innovative funding structures including mezzanine and debt instruments to provide long term funds to the sector
  - Actively monitor projects for viable commercial operations and generate risk adjusted returns on the invested capital
- Initial capital (Net Owned Funds) may be infused by the Government through budgetary allocation or deployment of surpluses
  - NBFC could borrow ~6 times of its net owned funds and accept deposit to the tune of 1.5 times of its net owned funds for built of investible corpus

Budgetary allocation to the sector can correspondingly reduce

- **Dilution/Sale of equity Stake in listed and unlisted PSUs in the sector**
  - PSUs under the administrative control of the Ministry of Railways could be listed on stock markets
    - Based on market comparative multiples, ~**Rs. 15000 Crore - ~Rs. 16000** Crore could be raised by listing of 49% shares of the companies like:
- **Equity stake sale in the listed PSUs like Container Corporation of India (CONCOR)**
  - Current Govt. of India stake -61.80%
  - Market Capitalization as on May 12, 2016 - ~Rs. 26,000 Crore
  - **Diluting to 51% can lead to mobilization of ~Rs. 2740 Crore**

- **Listing on Stock Exchanges through Holding Company structure**
  - IR's stake in railway SPVs (through PSUs like RVNL) could be transferred to a Hold Co.

Project SPVs / JVs	Stake held by RVNL	Project Status
✓ Kutch Railway Co Ltd.(KRC)	50.0%	Completed
✓ Bharuch Dahej Railway Co. Ltd.	33.3%	Completed
✓ Krishnapatnam Railway Co. Ltd.	30.0%	Partially operational
✓ Haridaspur Paradip Railway Co. Ltd.	33.3%	In Progress
✓ Angul Sukinda Railway Ltd.	40.2%	In Progress

  - Hold Co. can be listed on Stock Exchanges
    - Move has been well harnessed by private sector groups in past
    - Combines asset base generates better returns and higher fund mobilization
  - The funds mobilized can be used for funding
    - Under construction Projects held by Hold Co.
    - New Projects conceptualized
    - Expansion and modernization of existing projects

- **Locomotive and Wagon Manufacturing facilities can be brought under a separate Company for listing**
  - Railway Rolling-Stock Manufacturing Company can be incorporated to handle the 12 major locomotive / wagon / coaches etc. manufacturing facilities
  - Funds from capital markets could be tapped by listing the company
  - Alternatively, strategic investors could be brought in the company for release of Govt. investment
- ***Non Core business could be hived-off/put under PPP to increase focus on core areas***
  - *Hospitals, Education Institutions, Housing complexes, Sanitation services, Security, Non core construction activities*
- *Land parcels could be exploited commercially without loosing ownership*
- *Rail Power company to ensure integrated approach on meeting power requirement and reducing cost*

New initiatives in IR Budgeting

NAIR

10.08.2016

Budget Estimates for 2016-17

In Rs Cr

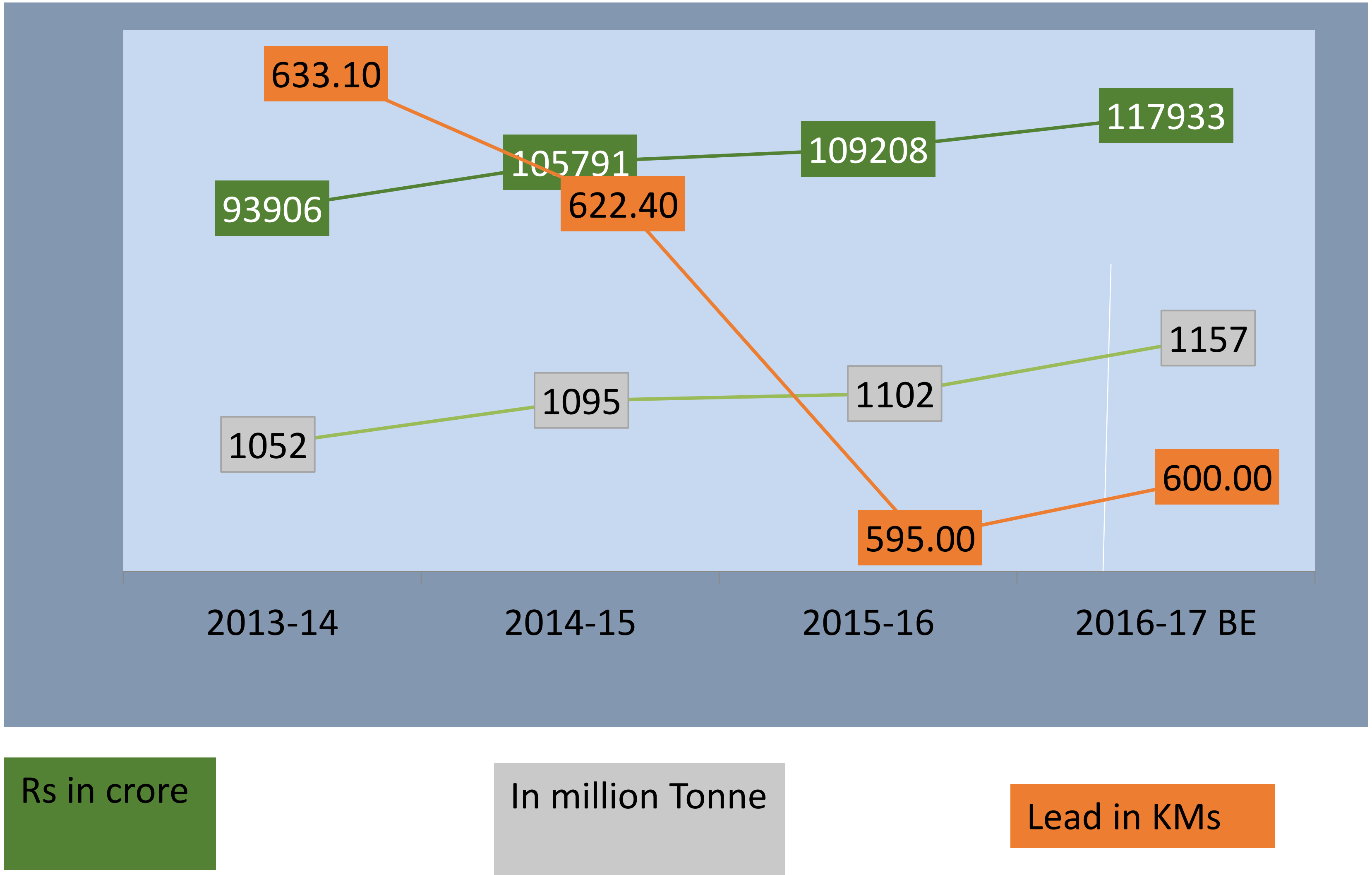
S.No	Particulars	2015-16 Revised Estimates	2015-16 Prov	2016-17 Budget Estimates
1	Gross Traffic Receipts	**1,67,834**	**1,64,334**	**1,84,820**
2	Ordinary Working Expenses	1,10,690	1,07,736	1,23,560
3	Appropriation to DRF	5,500	5,600	3,200
4	Appropriation to Pension Fund	34,500	34,500	42,500
5	Total Working Expenses	**1,50,690**	**1,47,836**	**1,69,260**
6	Miscellaneous Receipts	3,971	4,047	4,451
7	Miscellaneous Expenditure	1,217	1,315	1800
8	Net Revenue (1)-(5)+(6)-(7)	**19,898**	**19,230**	**18,211**
9	Dividend to General Revenue	8,495	8,725	9,731
10	**Excess/Shortfall**	**11,402**	**10,505**	**8,479**
11	**Operating Ratio**	**90.0%**	**90.5%**	**92.0%**

% Breakup of OWE	
Staff Cost	56.75
Fuel -Diesel	11.71
Fuel –Elec.	6.92
Stores	5.76
Lease Charges	7.16
Misc	11.70

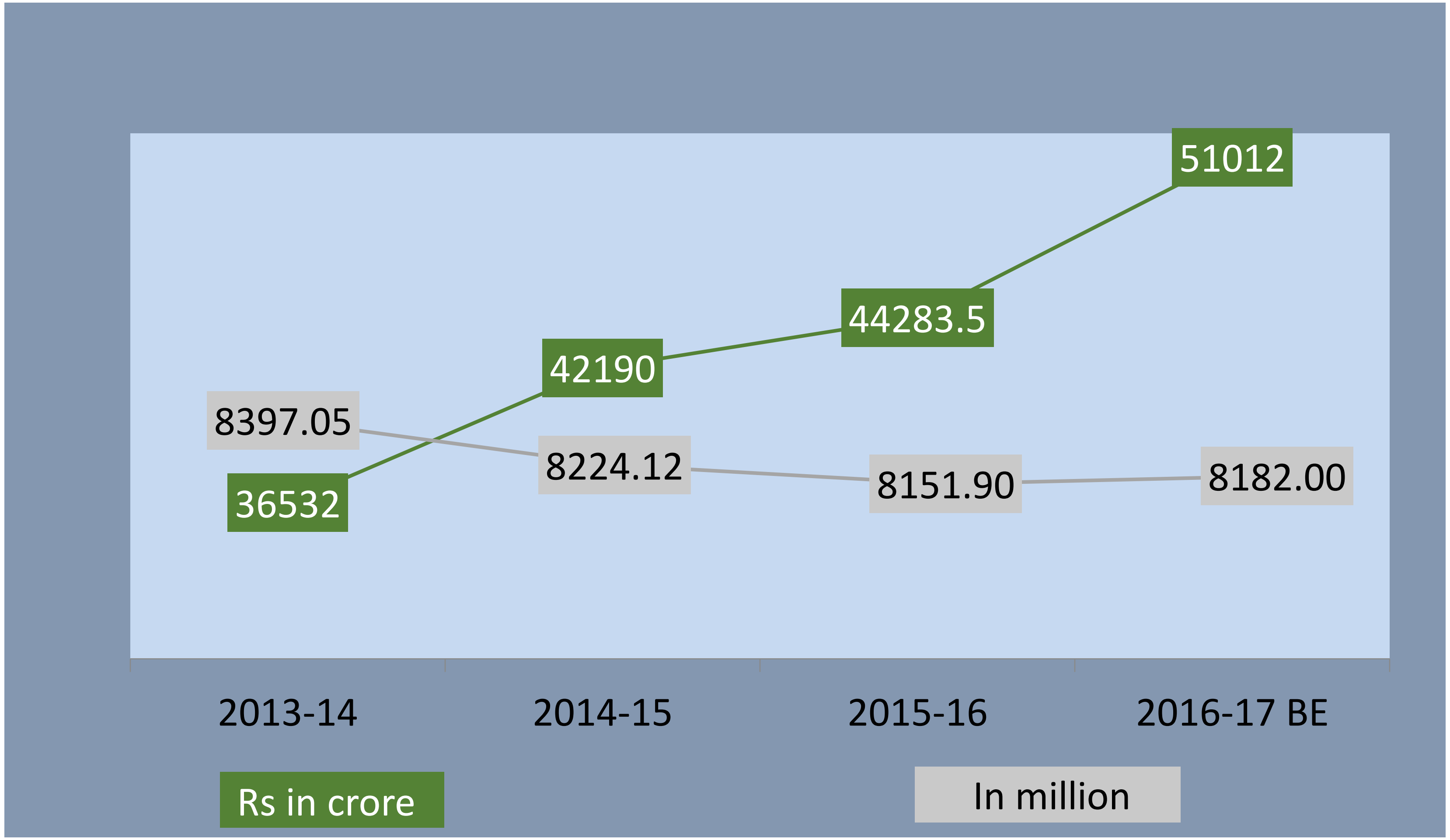
REVENUE TARGET

- Total loading 1157 mt : Zone-wise targets fixed
- Assumptions:
  - Incremental 55.52 mt loading in Freight anticipated: *of which* coal 26 mt, cement 5 mt, iron ore 8 mt, pig iron & finished steel 2 mt, container traffic 2 mt., others 6 mt
- The average lead of freight is coming down adversely impacting Railway Revenues.
- There is negative trend in originating Passenger numbers. This is partly on account of improvement in Road Sector.
- Originating passenger estimated to grow at 0.4% over last year actuals. Passenger revenues are expected to increase by 15.2%.Measures such as running new train services like Tejas and Humsafar which will recover costs completely; add capacity for reserved travel, with more 3AC services.
- As Rail coefficient is declining, not much headway to raise tariff much.

Trends in Loading, lead & Earnings from 2013-14 to 2016-17 BE



Trends in Originating Passenger & Earnings from 2013-14 to 2016-17 BE



Despite drop in Passenger numbers the Earnings have grown on account of increase in Passenger fares and continued growth in PRS segment.

Focus areas in Other Coaching Earnings

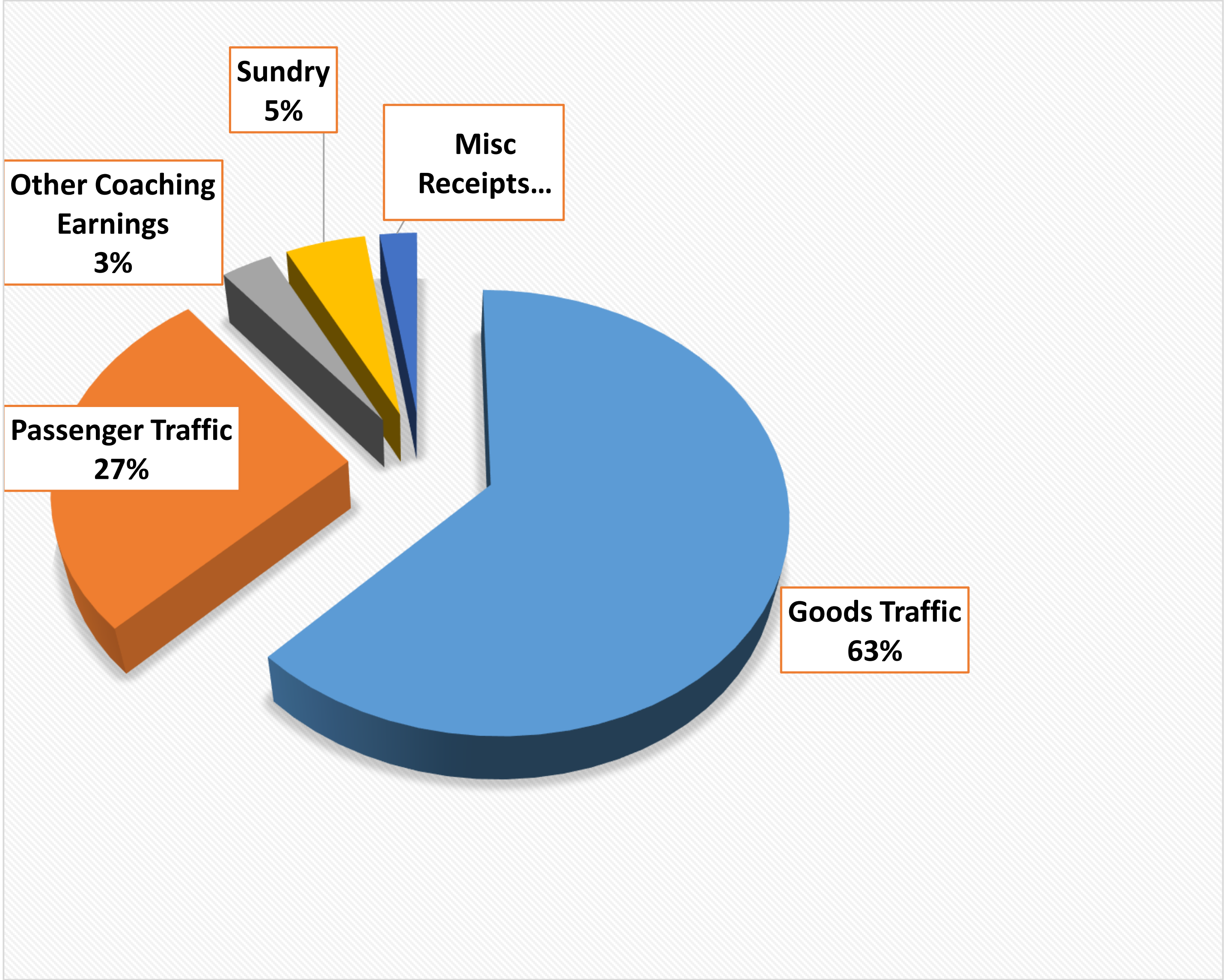
Item	B.E. 2016-17	Growth Target over 2015-16
Other Coaching	Rs 6184.80 cr	41.7%

Major Items	2013-14	2014-15	2015-16 RE	2016-17 BE
Parcel	Rs 1,780 cr	Rs 1960 cr	Rs 2149 cr	Rs 3055.97 cr
Luggage	Rs 95 cr	Rs 104 cr	Rs 117 cr	Rs 144.69 cr
Post Office Mails	Rs 180 cr	Rs 170 cr	Rs 207 cr	Rs 217.11cr
Penalties, fines, parcel demurrage, platform-tickets etc.	Rs 1,353 cr	Rs 1764cr	Rs 1853 cr	Rs 2767 cr

Returns from Railway Assets and Commercial Utilization - NFR

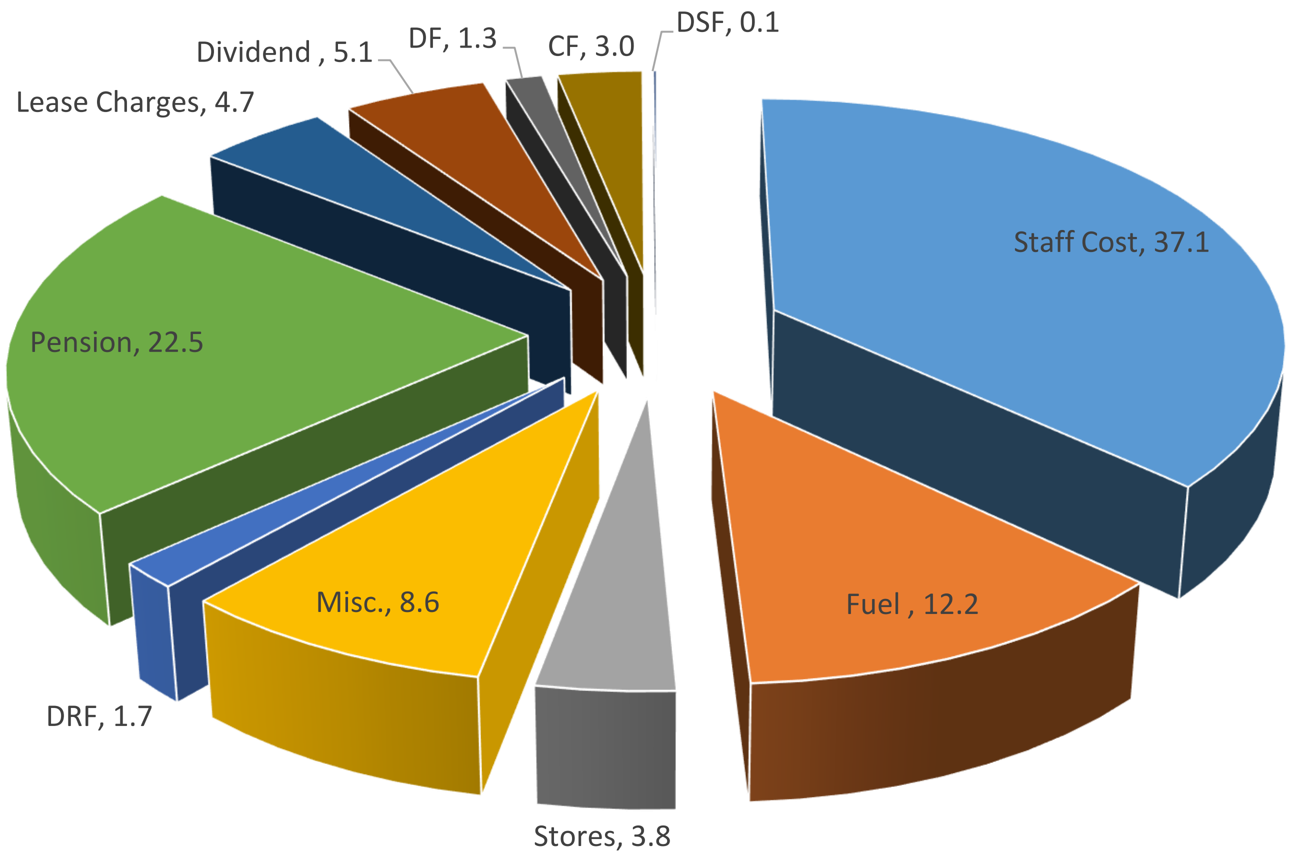
- **Revamping parcel business**
  - **Liberalise the policy to enhance volumes, set up online portal for booking**
  - **Open the sector to container operators**
- **Advertising – Target to increase revenues by almost 4 times**
  - **Study to assess the pan Indian potential to set up a neutral benchmark for potential advertisers**
  - **First batch of stations to be tendered out by August.**
  - **Branding of stations and trains being actively considered**
- **Monetising data/software/other assets**
  - **Actively looking at various opportunities: Data monetization through web service, FM radio in trains, IPR monetisation**
- **Monetising land**
  - **Land utilization for building specialized warehouses to be explored**
- **Exports**
  - **Target to reach Rs 4000 crore by 2020 through exports of Machinery & Plant**
- **Scrap disposal: Special focus to increase scrap sale.**

Where the rupee comes from (%)



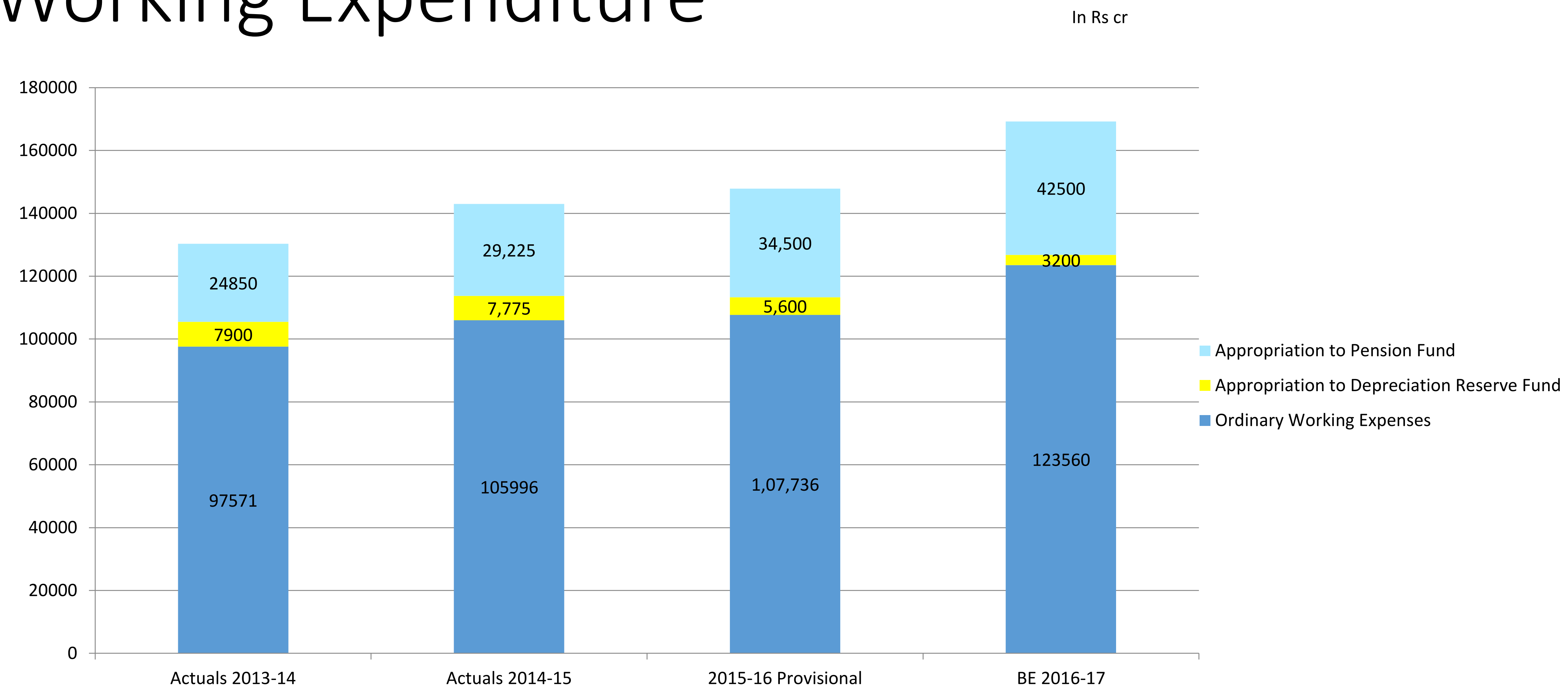
	BE 2016-17 (In Rs cr)
Goods Earning	118032.75
Passenger Earning	51012
Other Coaching Earnings	6184.8
Sundry Earnings	9590.29
Misc. Receipts	4450.8
Total	**189270.64**

Where the Rupee goes in percentage.



	BE 2016-17 (In Rs Cr)
Staff Cost	70125
Fuel	23010
Stores	7111
Misc.	16261
App to DRF	3200
App to Pension	42500
Lease Charges	8853
Dividend	9731
App to DF	2515
App to CF	5750
App to DSF	214
Total	**189270**

Working Expenditure



Fuel bill of railways 24% of O.W. E.in R.E. 2015-16 and 18.63% of O.W.E. in B.E. 2016-17.
Fuel expenses, due to low HSD prices have been budgeted at (-) 11.7%
In Electric traction provision is kept at (-) 15% due to efficiency measures and sourcing of electricity from cheaper alternatives.
The impact of the 7th Pay Commission only for the salary portion and is Budgeted at Rs 12,000 cr which will be provided partly by credits from fund balances in Railway Debt Service Fund. Provision for Pension has been Budgeted at Rs 8,500 cr

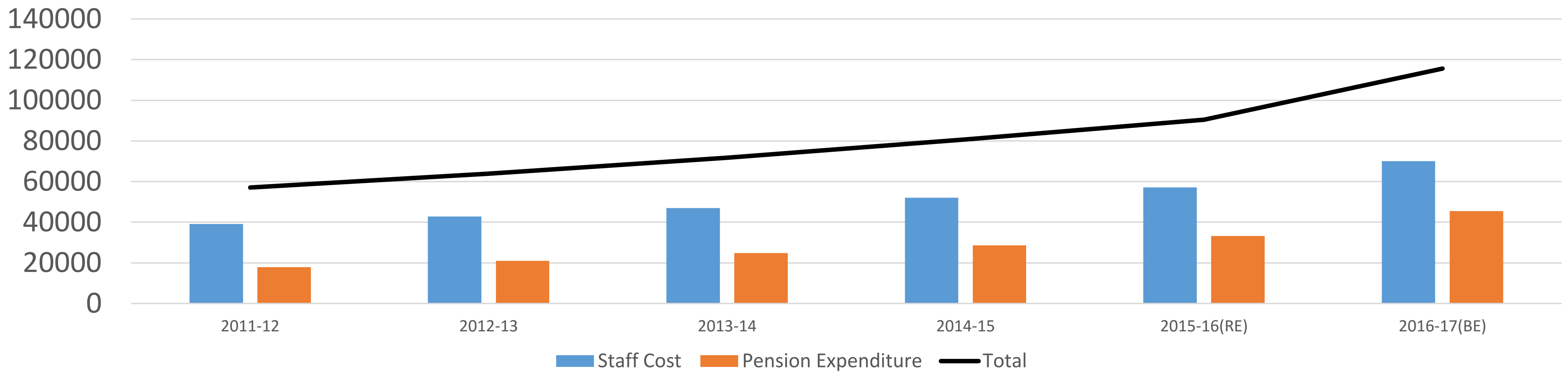
REDUCTION IN WORKING EXPENSES

- Diesel fuel expenditure
- Approx. expenditure on diesel in 2015-16 - Rs. 17730 crore
- Budget estimates 2016-17 projected at Rs. 14500 crore, considering constant diesel prices
- Strategy for reduction of Rs. 1930 crore:
- buying crude through import and booking refining capacity in the existing Indian refineries to process that crude.
  - would lead to tax savings of the order of 20%. However, implementation would happen gradually, hence, savings of only 10% amounting to Rs. 1643 crore are expected in 2016-17.
- Savings of Rs. 287 crore are planned to be achieved through other measures such as:
- *reduce idling of locomotives.*
- *large scale condemnation of overaged fuel inefficient locos.*
- *undertaking maximum fuelling from cheaper locations.*
- *Use of bio diesel for blending to the tune of 5%.*
- *Other measures include reduction of departmental inventory.*

Key Challenges in owe

- Implementation of 7 CPC report will adversely impact Railway Finances.
- Crude Oil prices are uncertain which is affecting Railways fuel budget.
- Most of the expenditure is inflexible eg Staff cost, maintenance cost etc.
- Rising Staff and Pension cost: total number of Staff on IR 13.2 lakh while Pensioner are 13.7 lakh. (2014-15)
- Debt Servicing will be area of concern especially if delay in project execution or slippages in revenue forecast for new projects.

Staff & Pension Cost (Rs. Cr)



	2011-12	2012-13	2013-14	2014-15	2015-16(RE)	2016-17(BE)
Staff Cost	39114	42879	46940	52061	57187	70125
Pension Expenditure	17919	21021	24762	28642	33220	45500
Total	**57033**	**63900**	**71702**	**80703**	**90407**	**115625**
Total staff cost and Pension as % to GTR	54.78%	51.64%	51.38%	51.50%	53.87%	62.56%

Impact of 7th CPC

			(Rs. in crore)
	Impact incl. Arrears for 3 months	Provided in BE for full year	Addl. Impact (to be provided)
Pay	15000	12000	**3000**
Allowances	10000*	0	**10000**
Pension	10600	8500	**2100**

**Assessed as per 7th CPC recommendations, will be paid after Govt.'s decision.*

➢Against a requirement of **Rs.25,600 crore** needed to implement the 7th CPC on Salary and Pension, only **Rs.20,500 crore** exists in BE 2016-17. The balance if necessary will be provided in the Revised Estimates for the fiscal.

➢Since the 7th CPC recommendations on allowances have not to be implemented immediately, the exact impact will vary upon the timing of their implementation. The necessary provision for this will be made in the Revised Estimates for the fiscal.

Financial Review to End of June ‘16

	Prov. 2015-16	Budget Estimates 2016-17	Targeted Growth	To end of June, 2016				
				Actual COPPY	B.P.	Approx.	Var. over B.P.	Growth Achieved
Freight Loading (MT)	1101.48	1157.00	5.0%	271.64	290.60	270.45	-20.15	-0.4%
No. of Orig. Passengers (Million)	8151.90	8182.00	0.4%	2042.05	2050.15	2040.00	-10.15	-0.1%
Traffic Earnings & Expenditure (` In cr.)								
Passenger	44283.59	51012.00	15.2%	11239.34	12845.41	11629.31	-1216.10	3.5%
Other Coaching	4371.37	6184.80	41.5%	1073.20	1532.99	1124.64	-408.35	4.8%
Goods	109208.00	117932.75	8.0%	28185.64	29681.61	25149.79	-4531.82	-10.8%
Sundry	5929.00	9590.29	61.8%	877.32	1538.15	939.40	-598.75	7.1%
Total	163791.96	184719.84	12.8%	41375.50	45598.16	38843.14	-6755.02	-6.1%
Ord. Working Expenses	107735.71	123560.00	**14.7%**	31131.04	32080.41	32320.18	239.77	**3.8%**

Performance during 2016-17 Position to end of June 2016

- Against a growth target of 5% in BE, **loading** has witnessed a negative growth of 0.4%

- Average **freight lead** has also dropped to 559 km against the targeted lead of 600 km in BE and COPPY of 609 km resulting in loss of traffic throughput in terms of Net Tonne Kilometers (NTKMs) by 23188 million (-3.34%) over the BE target and by 14548 million (-8.34%) over COPPY.

- **Originating Passengers** growth during the period is below the proportionate budget target as also over COPPY by 0.27% and 0.01% respectively. Non-suburban(Non-PRS) segment of the passengers has witnessed a negative growth of 1.86% over COPPY.

- **The performance in the first quarter is below estimates. To achieve BE, Passenger earnings need to grow by 19% over the next three quarters when compared with COPPY. Similarly, for Goods, the increase required now is 15% as compared to 8% growth budgeted.**

- **For Sundry growth over COPPY has to be 71% and for OCH 53%. The tepid performance of first quarter has necessitated overall growth in next three quarters to be 19% more than COPPY.**

Out look based on above trends

If the trend above continues, the year end shortfall may be more than Rs. 25000 cr. This may lead to depletion of Fund balances, may hamper Plan expenditure and Railway ability to meet even the revenue expenditure.

OR continued….

- For 2016-17,assessment of operating ratio based on concrete action plan prepared by the Railway Board

- 2015-16- Savings of Rs. 11,701 crore over BE neutralizing most of the revenue shortfall, Prov. OR 90.5%;

- 2016-17- Targeted Operating Ratio (OR) - 92%:

  - restrict growth of Ordinary Working Expenses to 14.7% after building in immediate impact of 7th CPC,
  - reductions planned in diesel and electricity consumption,
  - Gross Traffic Receipts targeted at Rs. 1,84,820 crore.

Proposed Investment Plan (2015-19)

Item	Amount (In Rs Cr)
Network Decongestion(including DFC, Electrification, Doubling including electrification and traffic facilities)	199320
Network Expansion(including electrification)	193000
National Projects (NE and Kashmir connectivity projects)	39000
Safety (Track renewal, bridge works, ROB,RUB and S&T)	127000
Information Technology / Research	5000
Rolling Stock(Locomotive, coaches, wagons-Production and maintenance)	102000
Passenger Amenities	12500
High Speed Rail & Elevated corridor	65000
Station redevelopment and logistic parks	100000
Others	13200
Total	**8,56,020**

Sourcing Funds – a snapshot

Gross Budgetary Support

>National Projects

>Strategic Lines: Subsidized

>With Dividend

>From Central Road Fund

Institutional financing: LIC – loan agreement effectuated; Rs. 10,000 crore drawn

JVs: Projects worth Rs. 1 lakh crore expected to be executed through JVs with State Governments; 17 states committed & 6 signed MOU with IR

Market debt: Tax free bonds – Rs. 9500 crore in 2015-16

Multilateral/bilateral agencies – WB, ADB, AIIB

Implementation of projects through Railway PSUs

Station Development

CSR & MPLAD funds for passenger amenities and cleanliness & waste management

Changes in funding for CAPEX

Year	Internal Resources	IRFC+ EBR–IF	CRF/RSF	GBS	PPP
2012-13	19%	30%	3%	48%	
2013-14	18%	28%	4%	50%	
2014-15	26%	19%	4%	51%	
2015-16	18%	25%	3%	38%	17%
2016-17 BE	14%	34%	9%	28%	15%

The GBS despite increasing quantitatively, as share of total plan outlay has gone down.
The increase in railway share to 14% in 2016-17 from Central Road Fund has resulted in quantum jump in RSF.
From 2016-17, RSF is also utilised in new lines, GC etc.
The share from External Borrowings has also increased.
As these are high cost fund, ensuring timely completion is even more important.

CAPEX planned for 2016-17

Category	Source of Funds	2015-16 Capex (Rs. Crore) Approx	2016-17 Capex (Rs. Crore)
Capital	Ministry of Finance GBS	35006	34220
Capital fund (For Lease payments)	Internal Generation	6316	7000
Depreciation reserve fund	Internal Generation	7593	7160
Development fund	Internal Generation	2926	2515
Safety fund	Ministry of Finance through Road Safety Fund (Diesel Cess appropriation)	2607	10780
Extra Budgetary Resources	Market borrowing by IRFC RSP+ Institutional financing by LIC + State JVs, JVs with other PSUs (Coal India, NTPC) and PPP in Railways (Port development, Station Development, Manufacturing Units etc), Wagon leasing, PFTs/ Sidings, State government's contribution to rail assets like ROBs/RUBs	38709	59325
Total		**93156**	**121000**

Additional support from mof

- Nirbhaya Fund for provision of CCTV at Railway Station
- Rs 200 cr has been agreed by MOF for 2016-17.
- A separate sub head under Plan Head 64 (OSW) has been created for keeping accountal.
- The allocation Nirbhaya fund is CAP(N) to ensure proper accountal.
- Additionally Rs 1155 cr has been agreed by MOF as part of Swach Bharat Mission for provision of Bio Toilets for 2016-17

Debt Trap

World-wide, for financing Railway infrastructure, the debt undertaken had been as under:

- German Railways in 2013 had total revenue of Euro 39 bn and had net financial debt of Euro 16 billion.
- Chinese Railways before its corporatisation in 2013 had a debt of USD 428bn
- China Railway Corporation’s total liability by end of March 2013 was 2.84 trillion Yuan with assets of 4.68 trillion yuan. Corporation debt to asset ratio is 62%
- Russian railway attracted USD 50bn of private investment
- JR east has a total asset of USD 72bn and interest bearing debt of USD 32bn.
- IR lease payments for debt servicing is 7.9% of the Gross Traffic Receipts (to end of March 2016).

PARTNERSHIPS

- **Engagement with any third party where it makes capital investment for creation of Rail-based infrastructure.**

. **In tune with the National PPP policy :**
  - Long term contractual arrangements
  - Between govt/statutory body/government owned entity and a private sector entity
  - For investments being made and/or management being undertaken by the private entity
  - Where there is a well-defined allocation of risk between the private and public entity
  - Private entity receives performance linked payments that conform to specified and pre-determined performance standards, measurable by the public entity, or its representative.
  - Common arrangements include – BOT, Build-Lease-Transfer, DBFOT, Operate-Maintain-Transfer (OMT).

. **Includes cost sharing arrangements by state govts and others, investments towards wagon leasing, sidings, PFTs, capital investments by Railway PSUs, CSR funds, MPLAD, PPPs, etc.**

Physical parameters

- Pre 2014, **average commissioning** of Railway lines was 1500 kms per year. In the last two years, the commissioning of BG lines has improved to 2300 kms per year which is an improvement of 50% **.**
- In the last 10 years on an average of 807 kms of Railway **Electrification** was carried out whereas this has increased to 1,500 kms per year.
- **90 new projects involving a total investment of Rs. 1,26,172 crore covering about 8,432 kms covering new line, doubling, gauge conversion and Metropolitan Transport Project (MTP) included in the Budget.**
- In 2016-17, Broad Gauge lines at the rate of over 7 km per day against an average of about 4.3 Km per day in the last 6 years. This pace will increase to about 13 kms per day in 2017-18 and 19 kms per day in 2018-19 while providing employment to 9 crore mandays and 14 crore mandays respectively**.**

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;

- 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 DFC

Cost of project

Eastern DFC Rs 30,358 cr (excluding 538 km Dankuni- Sonnager through PPP)

- World bank loan Rs 13,625 cr, Equity through GBS Rs13,049 cr and GBS for land acquisition Rs.3,684 cr
- World Bank committed USD 2.725 bn 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

Western DFC Rs 51,101 cr

- JICA loan Rs 38,722 cr, Equity through GBS Rs 7,996 cr and GBS for land acquisition Rs.4,383 cr
- JICA loan JPY 646 billion (incl for procurement of locos)
- Flows through GBS, Interest liability @7% p.a. & moratorium of 10 years; No currency fluctuation risk

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

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 owns rolling stock valuing Rs. 1,23,000 crore

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.
- Loco Factories at Madhepura and Marhowra wherein significant part of Equity is through FDI. Order book of Rs 40,000 cr.

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
- Success Stories:
  - Dhamra/Tuna Port
  - Coal connectivity projects in Chattisgarh, Odisha and Jharkhand (CERL,CEWRL etc.)
  - Customer funded projects worth Rs 2000 cr with NTPC

State JV’s

- Existing:
  - Cost sharing projects where States share cost of new lines
  - JVs –MRVC & KRCL formed in partnership with State Governments to execute region specific works
- Proposed:
  - 17 States expressed interest; MOU signed with 7 states and JV agreements signed with Odisha and Haryana
  - IR to have upto 50% 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
  - High Speed Rail (HSR) proposed with Govts of Gujarat and Maharashtra

New Structure proposed:
Rail India Development Fund (RIDF)

- Fund proposed to set up with World Bank assistance
- Independent of Railway Budget
- Initial Railways & 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

Capex to end june 2016

Plan Expenditure 2015-16 and 2016-17						
						(Rs in cr.)
Allocation	BE 2015-16	Exp. to end June'15	%age utilisation	BE 2016-17	Exp. to end June'16	%age utilisation
1	2	3	4	5	6	7
Capital	40000	8336	20.8%	34220	6110	17.85%
CF	6293	3006	47.8%	7000	3662	52.32%
DRF	7500	1615	21.5%	7160	1224	38.74%
DF	4000	467	11.7%	2515	498	19.80%
SF	1646	553	33.6%	10780	1949	18.08%
	59439	13977	23.5%	61675	13443	23.31%
IRFC Bonds	17655	3523	20.0%	20000	2890	14.45%
EBR(IF)	17136		0.0%	20985	763	3.63%
EBR(Partnership)	5781		0.0%	18340	2655	14.48%
	40572	3523	8.7%	59325	6308	10.63%
Grand Total	100011	17500	17.5%	121000	19751	16.88%

Point of concern 1: Excess Expenditure

Working towards 'Nil" excess: 2014-15 fewer zones reported excess under certain grants. Excess is likely to be reduced further in 2015-16.
-Constitutional position mandates no spending more than what has been granted under the Appropriation Act.

-P.A.C. takes harsh view of the excess especially when Supplementary Grant is obtained

-Remarks of the P.A.C. scathing including fixing of responsibility: fix responsibility through APAR & refer to DoPT.

-An expert group in Board with Adv(Accounts) as convener has been constituted to study the instances of excess expenditure and evolve systems to avoid same.
-Therefore instructions to all zones on control over expenditure within Grants/SL

Point of Concern 2

- Incidences of Items under Objection increasing
- Course correction in 2015-16 i.e: Delegation of powers for sanctioning the revised cost of work
- Appropriate budgeting
- Pink Book now reflects Sanctioned Cost. Rlys required to revise prior to sending for re-appropriation.

Point of Concern 3: Availing of Supplementary

- SDG taken and amounts not spent
- Out of turn work moved through SDG and not executed immediately or later dropped from Pink Book
- Estimation of Charged Appropriation incorrectly estimated leading to insufficient SDG being obtained.

Linking Inventory to the Final Head outlays

- Since 2014-15, this has been effected.
- Production Units outturn of Rolling Stock & budget requirements are now inter-related.
- ZR's workshop & fuel budgeting is linked to their final head outlays (PU 27,34, 35,63, 64,60)
- Entire Rolling Stock Budget is linked now to transfer price & quantity; PU's to freeze Transfer Price for the entire f.y

Redefining relationship with MoF

- Intention to redefine methodology of dividend computation and bring in more reliefs

CURRENT LIABILITIES ABOSRBED BY IR AND LIKELY CONCERNS

- Konkan Rail Corporation Ltd
- KMRCL
- IRFC debt; incremental debt on account of augmented borrowing in the fututre
- Impact of 7th Pay Commission
- Requirement for DRF, DF; Operating Losses on Uneconomic Branch Lines.

ISSUES

- Ring Fencing of GBS by MoF
- Higher GBS translates into higher Dividend, paid in perpetuity
- Debt Servicing of EBR(IF)
- No scope of squeezing costs; subsidies a living reality

Contd …

- Railway Convention Committee (RCC) reduced rate of dividend for 2015-16 to 4% from 5% prevalent in 2014-15.
- RCC also recommended constitution of an Inter-ministerial group to determine the Public Service Obligation that may be considered for reimbursing to the Railways.
- Setting up of a RRSK with a corpus of 1.19 lakh crore has been proposed with pre-dominant funding from MoF.

Contd …

Merging of Railway Budget with Union Budget

- NITI Aayog has proposed merging of Railway Budget with the Union Budget.
- The proposal is under consideration of the government.
- A task force of officials from MoF and MOR is likely to be constituted soon to study all the aspects connected with the issue to take a final decision in the matter.

Thank you