

**Report of the
Comptroller and Auditor General of India**

**STATUS OF ONGOING PROJECTS IN
INDIAN RAILWAYS**

for the year ended March 2014

Laid in Lok Sabha/Rajya Sabha on _____

Union Government (Railways)

No. 48 of 2015

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PREFACE

This Report for the year ended March 2014 has been prepared for submission to the President of India under Article 151 of the Constitution of India.

This Report of the Comptroller and Auditor General of India contains the results of performance review on the following subjects:

- | | | |
|------|--|-----------|
| I. | Status of ongoing projects of Indian Railways- New Lines, Doubling and Gauge Conversion | Chapter 1 |
| II. | Management of Works Contract in Indian Railways | Chapter 2 |
| III. | Dedicated Freight Corridor Projects | Chapter 3 |
| IV. | Modernisation of Signal and Telecommunication System by Indian Railway Project Management Unit | Chapter 4 |

The instances mentioned in this Report are those, which came to notice during the course of test audit for the period 2013-14 as well as those which came to notice in earlier years, but could not be reported in the previous Audit Reports; matters relating to the period subsequent to 2013-14 have also been included, wherever necessary.

The audit has been conducted in conformity with the Auditing Standards issued by the Comptroller and Auditor General of India.

Audit wishes to acknowledge the cooperation received from Ministry of Railways at each stage of the audit process.

Abbreviations used in the Report

ASK	Arsikere Jn	FLS	Final Location Survey
APR	Anuppur Jn	GC	Gauge Conversion
ANG	Ahmadnagar	GBS	Gross Budgetary Support
AAP	Ambiapur	GM	General Manager
AJR	Ajaibpur	GOC	Ponmalai (Golden Rock)
ALD	Allahabad	GOK	Government Of Karnataka
ALJN	Aligarh Jn	GOAP	Government Of Andhra Pradesh
BBL	Balrai	HAG	High Administrative Grade
BDN	Bhadan	HNG	Hirahgaon
BNT	Bharthana	HRS	Hathras
BRN	Barhan	HQ	Headquarters
BG	Broad Gauge	HP	Himachal Pradesh
BPL	Bhopal Jn	HWH	Howrah
BINA	Bina Jn	HAS	Hassan
BSP	Bilaspur Jn	HJP	Hajipur
BXQ	Brundamal	JGR	Jaswant Nagar
BZA	Vijaywada Jn	JJK	Jheenjhak
CR	Central Railway	JLS	Jalesar Road
CUPJ	Cuddalore Port Jn	JPTN	Jaggayya Peta Town
CAO	Chhauradano	JRU	Chikjajur Jn
CPH	Champa Jn	JSG	Jharsuguda Jn
CIDCO	City And Industrial Development Corporation	KAA	Kaurara
CMGR	Chikkamagaluru	KGI	Kengeri
CTA	Chitradurg	KLA	Kulwa
CHL	Chola	KNS	Kanchausi
CPYZ	Chipyana Bujurg	KRJ	Khurla Jn
CRS	Commissioner Railway Safety	KQZ	Kolar
DL	Doubling	KYQ	Kamakhya Jn
DAQ	Daud Khan	KTV3	Kottavalasa
DAR	Danwar	KRMR	Karimnagar
DER	Dadri	KZJ	Kazipet Jn
DKDE	Dankaur	LMG	Lunding Jn
DOC	Date Of Completion	LAR	Lalitpur
DR	Dadar	LED	Liquid Crystal Display
DPR	Dhampur	MIT	Mitawali
DRU	Kadur	MIU	Maripat
DVG	Davangere	MKK	Madrak
ER	Eastern Railway	MNR	Makkhanpur
ECOR	East Coast Railway	MBG	Mixed Broad Gauge
FA&CAO	Financial Advisor & Chief Accounts Officer	MG	Meter Gauge
EKL	Ekdil	MTP	Mettupalayam
ETW	Etawah	MOU	Memorandum Of Understanding
FZD	Firozabad	MYS	Mysore

MM	Material Modification	RRB	Birur Jn
MACU	Mellacheruvu	RRH	Rura
NL	New Lines	SB	Sarai Bhopat
NR	Northern Railway	SCADA	Supervisory Control and Data Acquisition
NEFR	North East Frontier Railway	SDH	Synchronous Digital Hierarchy
NCR	North Central Railway	SKB	Shikohabad
NER	North Eastern Railway	SKQ	Shikandarpur
NWR	North Western Railway	SNS	Sarhi
NG	Narrow Gauge	SOM	Somna
NGP	Nagpur	SA	Salem Jn
NDLS	New Delhi Railway Station	SER	South Eastern Railway
NTPC	National Thermal Power Corporation	SWR	South Western Railway
NBQ	New Bongaigaon Jn	SECR	South East Central Railway
NMX	New Maynaguri	SR	Southern Railway
NRCO	Northern Railway Construction Organization	SCR	South Central Railway
NZB	Nizamabad	SOD	Sojat Rd
OHE	Overhead Equipment	SCL	Silchar
PHD	Phaphoond	SBP	Sambhalpur
PNK	Panki	SGRL	Singhrauli
PRA	Pora	TJ	Thanjavur
PAC	Public Accounts Committee	THM	Thivim
PB	Pink Book	TK	Tumakuru
PCE	Principal Chief Engineer	TIG	Titlagarh
PWP	Preliminary Works Programme	TKJ	Tilak Bridge
PVC	Price Variation Clause	UBL	Hubli
RB	Railway Board	VRI	Vriddhachalam Jn
ROR	Rate Of Return	VZM	Vizianagaram Jn
RITES	Rail India Technical And Economic Services		
RVNL	Rail Vikas Nigam Limited		
ROB	Road Over Bridge		
RUB	Road Under Bridge		
RMGM	Ramagundam		
RNY	Rangiya Jn		
RGL	Rengali		

EXECUTIVE SUMMARY

1. Review of Status of Ongoing Projects - New Lines, Doublings and Gauge Conversions

Indian Railways (IR) runs about 21598 trains (passenger and goods) daily throughout its network of 65808 track kilometer. In order to increase the line capacity and to bring the unconnected backward areas within the railways network, it undertakes projects of expansion by constructing New Lines, Doublings and Gauge Conversions. Over the years, total planned expenditure of the IR has increased disproportionately to its internal resources resulting in increased dependence on Gross Budgetary Support. During 2009-14, though IR added 10240 Km. to its network, 442 projects were ongoing as of March 2014 which would require ₹185569 crore for completion.

This report focuses on the performance of IRs in planning and in addition, attempts to assess the efficiency in financial management and execution of projects. The major Audit findings are mentioned below:

I. *Out of 442 ongoing projects, target for completion of projects was fixed for only 156 (35 per cent) projects. Even after fixation of targets, there was time overrun up to 16 years. Delay in completion of projects resulted in cost overrun of ₹ 1.07 lakh crore and throw-forward¹ of ₹ 1.86 lakh crore in respect of 442 ongoing projects. Audit observed that 75 projects were ongoing for more than 15 years and of them, three projects were 30 years old.*

Para 1.6.2 and 1.6.4

II. *Out of 442 ongoing projects, rate of return in respect of 236 projects was less than the prescribed benchmark of 14 per cent and 126 of them had negative rate of return. Out of 28 High Priority projects test checked, the physical progress of 7 projects was less than or up to 10 per cent and in respect of three High Priority projects, there was no physical progress.*

Para 1.6.6 and 1.6.7.1

III. *While the allotment of funds was not proportionate to the requirement, there were several instances of under-utilisation of funds which had adverse impact on the physical progress of projects.*

Para 1.6.9.1 and 1.6.9.2

¹ Funds required for completion of balance works of the project

- IV. *Deficient planning resulted in change in design and diversion of alignment causing avoidable extra expenditure of ₹ 369 crore.*

Para 1.6.10

- V. *Out of 11 National Projects, three projects were ongoing for more than 17 years and the remaining eight projects were ongoing for periods ranging from 4 to 11 years. Physical progress of seven national projects ranged between 0 and 34 per cent and the original cost of these seven projects increased substantially from ₹7651.23 crore to ₹20313.75 crore (265 per cent).*

Para 1.6.11.1

- VI. *Due to deficient planning in execution of Lumding- Silchar Gauge Conversion Projects, there were several instances of collapse of tunnels, bridges, diversion of alignment etc. resulting in extra/wasteful expenditure of ₹131.05 crore.*

Para 1.6.11.2

1.1. Gist of Recommendations

- I. *Indian Railways need to revisit all projects which are ongoing for more than 15 years and do not fulfil the prescribed Rate of Return for assessing the viability of the projects.*
- II. *Indian Railways need to prioritise projects on short term basis and ensure adequate funding so that the projects are completed in a time bound manner.*
- III. *Monitoring of execution of projects both at the Railway Board and at the Zonal Level needs to be strengthened to avoid wasteful expenditure and blocking of funds.*
- IV. *Timely completion of strategically important 'National Projects' needs to be ensured in a uniform and coordinated manner.*

2. Management of Works Contract in Indian Railways

Indian Railways executes a wide range of works for creation of assets such as construction of new lines, doubling and gauge conversion and maintenance works such as maintenance of track, renewal of track, maintenance of office buildings/quarters etc. These are executed through the agency of contractors under the supervision of the executives of the Engineering Department of Indian Railways. During 2011-14, IR spent ₹39,028 crore towards payments to contractors executing these works across the zones.

Detailed guidelines are prescribed in the Railway codes to ensure effective contract management and instructions in this regard are reiterated from time to time for better management of contracts.

Audit reviewed the tenders/contracts covering the period 2011-12 to 2013-14 across all the Zonal Railways mainly to assess the efficiency in management of contracts and execution of works.

Audit scrutiny revealed:

Tender processing:

- *Absence of complete e-tendering process despite instructions issued in 2003* **Para 2.2.1.1**
- *Low level of participation in more than 50 per cent of tenders.*

Para 2.2.1.2

Planning and award of tenders:

- *There was high incidence of discharge of tenders and delay in retendering. 53 per cent of discharged tenders are yet to be re-tendered.*
- *Delays were noticed at every stage of the contract process i.e. opening of tenders, issue of letter of acceptance, signing of agreements and finally timely execution of works indicating lack of detailed planning and preliminary preparation.*

Para 2.2.1.3

Para 2.2.1.5 and 2.3.5

Deficiencies in Implementation of Contracts:

- *Delays in contract execution starting right from signing of contract document to execution of contracts within time frame fixed.*
- *Extensions granted in a routine manner leading to delay in execution of 85 per cent of the contracts in progress/completed.*
- *Premature terminations due to improper contract management leading to blockade of funds and payments towards price variation.*
- *Considerable delay in execution of contracts relating to maintenance of assets and creation of assets led to cost overruns and delay in achieving projected improvements in functional efficiency of railway operations. 60 per cent of works executed and 83 per cent of the contracts in*

Para 2.2.1.6

Para 2.3.5

Para 2.3.2 and 2.3.3

progress/completed were delayed due to failure to ensure completion of preliminary works by Railways before award of tenders.

Para 2.2.1.4, 2.3.4 and 2.3.5

- *73 per cent of the arbitration cases decided against Railways strengthening the perception of improper contract management.*

Para 2.3.7

2.1. Recommendations

- I. To ensure timely completion of contract works and for efficient utilization of resources, RB needs to ensure that the provisions laid down in the Indian Railway Code for the Engineering Department and RB's instructions issued from time to time are strictly followed by the Zonal Railways right from tender planning stage to awarding and execution of contracts.***
- II. To avoid time and cost overrun, time-lines for various processes involved in tendering and awarding of contracts need to be clearly defined and monitored at appropriate stages.***
- III. For maintaining transparency and achieving competitive rates, RB needs to take measures to introduce complete E-Tendering.***

3. Dedicated Freight Corridor Project

In April 2005, Hon'ble Minister for Railways announced construction of high capacity, high speed Dedicated Freight Corridors along the golden quadrilateral, separating freight traffic from passenger traffic on trunk routes. Based on Preliminary Engineering cum Traffic Survey (PETS) Reports, MoR approached (Feb 2007) the Cabinet seeking approval for taking up the project at an estimated cost of ₹ 28,181 crore. It was proposed that the MoR would fund equity component largely by internal generation and about 10 *per cent* from Gross Budgetary Support. Government of Japan, after conducting feasibility study, agreed to provide fund for Western Corridor only. Based on the Report submitted by Japan International Cooperation Agency (JICA), MOR approached the Cabinet for approval of the Project Cost at ₹ 43,293 Crore (with loan from JICA). As the financing plan for funding the Eastern Corridor was not submitted, the Cabinet approved (February 2008) to undertake the project at an original estimated total cost of ₹ 28,181 crore. The major audit findings noticed during review of planning for execution of the project were as follows:

- I. *Approaching the Cabinet for 'In Principle Approval', was without credible estimates, concrete financing plan and sources of finance, was premature. In all the Cabinet Notes, MoR had submitted the completion period of the Project as five years, without indicating 'Zero' date for commencement.* **Para 3.2**
- II. *The Share of MoR which was initially estimated at ₹ 9393 crore, had gone up to ₹ 27,153 crore.* **Para 3.2**
- III. *Ministry of Railways took unduly long period of eight years in drawing up and approval of Concession Agreement and six years to finalize detailed project cost in spite of availability of basic data. There was delay of more than three years in deciding the composition of Board of Directors.* **Para 3.2**
- IV. *The recommendations of Task Force to form an SPV owned jointly by the Indian Railways and the users of bulk freight services was not adhered to. An SPV with 100 per cent equity was formed by MOR primarily to avoid any time or cost overrun and to get the project positioned by 2010-11. Since the project has not been completed so far, the purpose of formation of SPV with 100 per cent equity was defeated.* **Para 3.2.1**
- V. *There was time overrun of three years which had led to escalation in the construction cost by ₹ 7992 crore and land cost by ₹ 4442 crore till March 2014.* **Para 3.2**

3.1 Recommendations

Ministry of Railways / DFCCIL needs to -

- I. *Prepare realistic and objective cost assessment duly incorporating all the provisions for contingencies, insurance, taxes, interest during construction and other related components.*
- II. *Obtain the approval of Cabinet for revised cost and take effective steps to execute the balance works of the project in a time bound manner within the revised approved cost.*

4. Modernisation of Signaling and Telecommunication System by Indian Railway Project Management Unit

On 20 August 1995, a major rail accident due to rear collision of two Express trains occurred at Firozabad on Tundla - Shikohabad section of Ghaziabad (GZB) – Kanpur (CNB) rail route due to wrong manual

operation of Signaling and Telecommunication (S&T) system. Consequently, Railway Board decided (1995) to modernise S&T system on this route to achieve efficiency & safety in train operations through centralised traffic control.

In view of inadequate General Budgetary Support (GBS) with Ministry of Railway (MoR), a 'Loan Agreement' was entered into (August 1997) with a German Government owned Development Bank (KfW) for DM 185,000,000. MoR entered into a 'Separate Agreement' with KfW in February 2002 defining the terms and conditions of execution of eleven works for modernisation of S&T system that included seven works that were ongoing utilising GBS. On the advice of KfW, MoR engaged (December 2002) a Consultancy Company (contract value- 3.91 million Euro) for technical advice to Project Authorities and supervision of project work. An SPV called 'Indian Railway Project Management Unit (IRPMU)' was set up in May 2003. Audit reviewed the project to assess the performance of IR and IRPMU in efficient planning and execution of project. The major Audit findings are mentioned below:

- I. *The scheduled date of completion of major contract was fixed as July 2009. However, the progress of the project was 35 per cent only till July 2009. Despite several extensions, the current progress of projects was 69 per cent (December 2014).*

Para 4.4.1 and 4.4.2.2

- II. *Due to slow progress of works, KfW terminated the 'Loan Agreement' with the MoR in February 2015. MoR, therefore, decided to get the balance work completed utilising GBS. MoR had assessed (March 2015) the latest anticipated cost of the project at ₹ 736.81 crore registering an increase of ₹ 291.24 crore (65.36 per cent) in the original cost. Against it, the expenditure incurred till March 2015 was ₹ 510.09 crore indicating that ₹ 226.72 crore would be required to complete the balance work.*

Para 4.4.2.2 and 4.5

- III. *Ministry of Railways took up this sensitive and important safety project on urgent basis. However, delays on various accounts at initial planning stage delayed the formation of IRPMU. This had led to the delay in award of contract. KfW loan remained undisbursed till the formation of IRPMU resulting in avoidable payment of commitment charges amounting to ₹ 8.26 crore.*

Para 4.4.1

- IV. *The contractor engaged for the project was found to be technically unsuitable by the Consultant during the evaluation of technical bids of tenderers. The progress of project was slow due to inefficient performance of the contractor. Besides contractor's performance, increase and decrease in the scope of work, post agreement technical issues related to designs, specifications and technologies contributed to slow progress of works. This important safety project is still incomplete even after six years from the initial date of completion. The objectives expected from the project have not yet been achieved.*

Para 4.4 and 4.5

4.1. Recommendations

- I. *In absence of foreign financial support, MoR needs to frame realistic timelines and ensure their adherence for timely completion of the balance works of the project and also ensure optimal utilisation of Gross Budgetary Support.*
- II. *For all future modernisation projects, MoR needs to ensure compliance of requisite preliminary formalities such as finalisation of designs, specifications, technologies and other related issues prior to award of contract for smooth progress of the project.*
- III. *To avoid consequences of arbitration/court cases, MoR needs to ensure timely decisions on all technical matters during execution stage.*

Chapter 1: Status of Ongoing Projects - New Lines, Doublings and Gauge Conversion Projects

1.1 Introduction

Indian Railways (IR) runs 21598 trains (passenger and goods) daily throughout its network of 65808 track kilometer. To keep pace with the increase in growth of traffic, to ease capacity constraints of its tracks and also to bring the unconnected backward areas within the railways network, IR undertook projects of expansion by constructing New Lines (NL), Doublings (DL) and Gauge Conversions (GC). Railway projects are generally financed through Gross Budgetary Support (GBS) from the Ministry of Finance. In the Vision 2020 documents presented (2009) to the Parliament, Ministry of Railways had stated that there was a huge shelf of ongoing projects¹. Targets for the projects were fixed on yearly basis depending upon the availability of resources. However, continuous addition of new projects without ensuring availability of funds further burdened the IR with additional financial liability. Due to delay in preparation/ sanction of estimates, deficient planning and delay in acquisition of land, the list of ongoing projects kept on piling up leading to cost and time overrun.

Vision 2020 proposed to add 25,000 km. of NL by 2020 and of this, at least 10,000 km. would be socially desirable lines regardless of their economic viability in the short run. It aimed at according priority to connectivity projects to North-East and Jammu & Kashmir. It also envisaged that GC programme would be completed and more than 30000 Km. would be double/multiple lines.

During 2009-14, though IR added 10240 Km. to its network which included NL (2643 Km-socially desirable), DL (3380 Km) and GC (4217 Km), 442 projects (NL-165, DL-216, and GC-61) were ongoing as of March 2014 with throw-forward as indicated in the table below:

Table No. 1: Revised Cost and Throw-forward of Ongoing Projects

Description	NL	DL	GC	Total
Total No. of Ongoing Projects	165	216	61	442#
Anticipated Revised Cost (₹ in crore)	159665	50498	52316	262479
Throw-forward as on 01.04.2014 (₹ in crore)	121232	37062	27266	185560

#This includes 82 projects with 100 per cent physical progress but with throw-forward of ₹ 10832 crore.

Over the years, total planned expenditure of the IR has increased disproportionately to its internal resources. Internal resource generation² had

¹ Ongoing projects are those projects (not covered under pending projects) which are appearing in the Pink Book (Annual Works Programme) and are under various stages of progress.

² Reserve Funds such as Depreciation Reserve Fund, Capital Fund and Development Fund.

decreased from 30.77 per cent in 2009-10 to 17.98 per cent in 2013-14 resulting in increased dependence on GBS from 44.70 per cent in 2009-10 to 53.82 per cent during 2013-14. Internal Resource Generation vis-à-vis Plan Expenditure during 2009-10 to 2013-14 is indicated in the table below:

Table No. 2: Internal Resource Generation and Gross Budgetary Support during 2009-14

Year	Total Plan Expenditure (₹ in crore)	Internal Resource Generation (₹ in crore)	Gross Budgetary Support (₹ in crore)
2009-10	39632.56	12195.68 (30.77 per cent)	17716.09 (44.70 per cent)
2010-11	40792.74	11527.39 (28.26 per cent)	19485.06 (47.77 per cent)
2011-12	45061.12	8933.73 (19.83 per cent)	21336.80 (47.35 per cent)
2012-13	50383.45	9531.31 (18.92 per cent)	25710.21 (51.03 per cent)
2013-14	53989.26	9709 (17.98 per cent)	29055.38 (53.82 per cent)

1.2 Organisation Structure

Implementation of new line, doubling and gauge conversion projects is the collective responsibility of various Directorates of Railway Board such as Civil Engineering, Works, Finance, Signaling, Electrical etc. However, the prime responsibility is on Member Engineering who is the head of Civil Engineering and Works Directorate. He is assisted by Executive Directors for planning, works, procurement, monitoring etc. At the Zonal level, there is a Construction Organization headed by Chief Administrative Officer/GM, who is assisted by Chief Engineers, Chief Electrical Engineers, Controller of Store, Chief Signal and Telecom Engineer at Headquarters level and Deputy Chief Engineers positioned in the field offices for executing the construction works. Details of organisation structure are shown in *Appendix I*.

1.3 Audit Objectives

The status of ongoing projects in Indian Railways was reviewed to assess whether:

- *Projects were judiciously taken up and duly prioritized in terms of projected benefits.*
- *Financial management was efficient with reference to the availability of funds and their optimum utilization.*
- *There was adverse impact on physical progress and the cost of the project due to deficient planning and monitoring.*

1.4 Audit Scope and Methodology

The scope of Audit covered review of status of all the New Lines, Doubling and Gauge Conversions projects ongoing as of March 2014. A detailed examination of records was carried out for the period 2009-14 pertaining to (i) 105 selected ongoing projects (NL-56, GC-18 and DL-31) (*Appendix-II*) with special emphasis on National Projects in North Eastern Region as indicated in *Appendix III*, (ii) Management of works contracts in Indian Railways (iii) Dedicated Freight Corridor Project and (iv) Modernization of Signaling and Telecommunication projects under execution through Indian Railway Project Management Unit (IRPMU).

Audit methodology included the examination of related records at the Railway Board level, at the Zonal Levels (Open Line and Construction Organisation) and also at IRPMU/Allahabad.

The Performance Audit commenced with an Entry Conference (October 2014) with the concerned executives of the Railway Board and respective Heads of Department at the Zonal level wherein the audit objectives, scope of study and methodology were discussed. The Draft Review Report was issued to Railway Board in August 2015. The audit findings were discussed in an Exit Conference held by the Principal Directors of Audit in the Zonal Railways with the concerned Heads of Department. The response of the Railway Board on the audit findings was awaited (September 2015).

1.5 Audit Criteria

The criteria to assess the performance of Indian Railways were derived from the following sources:

- Indian Railways Financial Code Volume I;
- Indian Railways Code for the Engineering Department;
- Indian Railways Code for the Accounts Department;
- Indian Railways Permanent Way Manual;
- Indian Railways Works Manual.
- Feasibility Study Reports and Final Location Survey Reports;
- Administrative observations on project Justification proposals, Monthly/Periodical Confidential Demi-official (MCDO/PCDO) Reports.

1.6 Audit Findings

Audit Objective – 1: To assess whether projects were judiciously taken up and duly prioritized in terms of projected benefits

1.6.1 Procedure for Sanction of Projects

Indian Railways sanctions projects on operational, strategic or socio-economic considerations. All projects upto ₹300 crore are approved by Hon'ble Minister for Railways. However, 'In Principle' approval of the Planning Commission is required before sanction of Doubling Projects having value less than ₹300 crore. In respect of all New Lines and Gauge Conversion Projects having value more than ₹300 crore, a Memorandum for Expanded Board for Railway (EBR)³ is prepared in which financial scheduling of the project is also planned and vetted by the Railway Board Finance and the same after approval of Board (Member Engineering) is sent for obtaining "In Principle" approval of the Planning Commission for the project. After "In Principle" approval, the project report is sent to the Project Appraisal and Management Division (PAMD) of the Planning Commission for appraisal. On approval of the EBR, a note for approval of the Cabinet Committee on Economic Affairs (CCEA) is prepared and put up for approval of the Union Cabinet. After a project is approved by Hon'ble MR/CCEA, it is included in the Railways Works Programme and a certain fund is allotted for carrying out preliminary works during the year.

1.6.2 Overview of all Ongoing Projects

Railway Board in their Action Taken Note on Chapter-1 State of Finances (Report No. 33 of 2010-11 Union Government /Railways) stated that there were 362 (NL-154, GC- 42 and DL-166) projects ongoing as of March 2014. However, from the records of Zonal Railways, it was observed that a total of 442 projects were ongoing across all Zonal Railways. This indicates a difference of 80 projects between the records of Railway Board and the Zonal Railways. On comparison of two data sources, it was revealed that:

- I. There were 20 projects which were shown in the list of ongoing projects maintained by the Railway Board, but were not included in the list of ongoing projects of the Zonal Railways. On the other hand, 116 ongoing projects in the Zonal Railways were not included in the list of ongoing projects of Railway Board. This implied that the number of ongoing projects in the Zonal Railways and the list of ongoing projects maintained by Railway Board is 462 (442+20) and 478 (362+116) respectively leaving a difference of 16 (478-462) ongoing projects as against the

³ EBR comprising members from Railway Board, Planning Commission, Ministry of Statistics and Programme Implementation and Ministry of Finance

overall difference of 80 projects which were not reconciled by the Railway Board.

- II. On analysis of the information collected from the Zonal Railways, it was further observed that 82 projects (NL-17, GC-19, DL-46) which had achieved 100 *per cent* physical progress were still showing a throw-forward of ₹10832 crore as of March 2014 for completion of these projects. Of them, 20 projects⁴ had been included in the list of 362 ongoing projects maintained by the Railway Board as indicated in *Appendix IV*.

Scrutiny of records relating to the status of 442 ongoing projects as furnished by the Zonal Railways revealed that:

- I. The cost of 442 ongoing projects was revised from ₹155570 crore to ₹262478 crore, an increase of 68.72 *per cent* as of March 2014. Railway Board in their Action Taken Note⁵ indicated throw-forward of ₹175717 crore for 362 ongoing projects. However, the Zonal Railways assessed that the anticipated throw-forward for completion of balance works relating to 442 ongoing projects was ₹185559 crore as of March 2014. The assessment of the Zonal Railways is reflected in the Pink Book which is approved by the Railway Board. The status of expenditure incurred and throw-forward of on-going projects as of March 2014 is indicated in the table below:

Table No.3: Expenditure on Ongoing Project (₹ in crore)

	No. of Projects	Original Cost	Revised Cost (March 2014)	Cost Overrun	Cumulative Expenditure (March 2014)	Anticipated throw-forward as of March 2014
Projects costing ₹150 crore and above*						
New Line	148	85825	156462	70637	43223	120262
Gauge Conversion	59	26846	48604	21758	28483	23445
Doubling	112	32080	40979	8899	13186	31324
Total	319	144751	246045	101294	84892	175031
Projects costing less than ₹150 crore*						
New Line	17	1497	3203	1706	2074	970
Gauge Conversion	2	230	3712	3482	4	3821
Doubling	104	9092	9518	426	5845	5737
Total	123	10819	16433	5614	7923	10528
Grand Total	442	155570	262478	106908	92815	185559

*As categorized by Railway Board

⁴ Indicated in italics in the Appendix

⁵ On Chapter-1 State of Finances (Report No. 33 of 2010-11 Union Government (Railways))

- II. Out of 442 projects, scheduled date of completion (Target date) of projects were fixed only in respect of only 156 projects (35.29 per cent). The original target date has already been exceeded in 105 out of 156 projects and the delay beyond the original date of completion was up to 16 years. In 47 out of these 105 projects, the progress was less than 10 per cent till March 2014.
- III. In respect of 286 projects, schedule date of completion was either not fixed or not available on the records of Zonal Railways. Out of 114 projects where target date was not fixed, the physical progress of 67 projects was less than 10 per cent. The details of Physical Progress of 442 projects as of March 2014 are indicated in the table below:

Table No. 4: Physical progress of ongoing projects

Target	No. of projects	Time overrun since the original date of completion and Physical Progress		
		Range of Physical Progress	No. of projects	Time overrun (in months)
Target Fixed	156	i. Less than 10 per cent ii. Between 10 and 50 per cent- iii. Above 50 per cent iv. Physical progress not available on Railway record-	47 28 79 2	Upto 192 Upto 168 Upto 159 Upto 67
Target date not fixed	114	i. Less than 10 per cent ii. Between 10 and 50 per cent- iii. Above 50 per cent iv. Physical progress not available on Railway record-	67 25 21 01	Not applicable*
Target date not available on Railway's record or not made available by Railway Administration	172	i. Less than 50 per cent ii. Above 50 per cent- iii. Physical progress not available on Railway record-	75 94 03	Not applicable*

*Due to non-fixation of target for completion of project, the time overrun could not be worked out.

Project –wise details of revision of project cost, cumulative expenditure along with the anticipated cost involved for the balance works etc. and physical progress of projects are shown in *Annexure 1 (Projects costing ₹150 crore and above) and 2 (Projects costing less than ₹ 150 crore).*

1.6.3 Year – wise Analysis of Projects

Year–wise analysis of 442 projects ongoing as on 31 March 2014 revealed the following:

Table No. 5: Age analysis of ongoing projects

Year of Sanction	NL	DL	GC	Number of projects sanctioned
Between 2008-09 and 2013-14	77	128	16	221
Between 2003-04 and 2007-08	28	59	15	102
Between 1998-99 and 2002-03	19	17	08	44
More than 15 years (1997-98 or	41	12	22	75

before)				
Total	165	216	61	442

Out of 442 ongoing projects, the works in respect of 22 projects had not commenced (March 2014) although some of these projects were sanctioned upto 16 years back⁶ and the details in this regard are shown in *Appendix V*.

Three projects which have been under execution for more than 30 years are detailed below:

A. Nangal Dam – Talwara BG Rail Link (NR)

The first phase of the project from Nangal Dam to Amb Andaura (43.914 km) was sanctioned in the year 1982-83 on grounds of socio-economic development at a cost of ₹37.68 crore. The work was started in 1982 on urgency certificate⁷ after an assurance from the Government of Himachal Pradesh to share the financial burden in respect of cost of land, cost of labour component of earthwork and wooden sleepers for the construction of the Railway line. The works relating to the section Nangal Dam to Amb Andaura were completed in October 1989 and opened to traffic in January 1991. The works relating to the section Amb Andaura –Talwara were not executed during 1991-96 due to Himachal Pradesh (HP) Government’s refusal to bear cost of land and was taken up only in September 1996 when HP Government agreed to give land to the Railway free of cost. The construction of 2nd phase (Una Himachal to Charuru Takrala) was started in 1998 and completed in June 2004 at a cost of ₹66.97 crores and the section was formally opened to traffic in March 2005. The progress of the project for the remaining sections was affected due to shortage of funds. Audit observed that the project remained under execution with physical progress of 55 *per cent* till March 2014 incurring an expenditure of ₹ 383.89 crore.

B. Howrah to Amta with a branch line from Bargachia to Champadanga (SER)

This New Line project was sanctioned in 1974-75. Based on an MOU executed (1973) with State Government of West Bengal, the land was to be provided by State Government free of cost. The first 24 km. stretch of the section from Howrah to Bargachia was completed in 1984. The work on further construction beyond Bargachia was frozen for more than a decade. The project was shown as ongoing in Pink Book with a token allotment of ₹1000 each year up to 1995-96⁸. The project was de-frozen in June 1995 after allotment of funds. Though

⁶ 9 projects sanctioned between 1997-98 and 2008-09 and 13 projects sanctioned between 2010-11 and 2012-13

⁷ The expenditure in respect of works undertaken on the basis of urgency certificate may be incurred prior to receipt of the sanction of the authority competent to sanction the estimate. (Para 1103 of Indian Railways Code for Engineering Department)

⁸ Except in 1993-94, when ₹1 crore was allotted

the section from Bargachhia to Amta was commissioned in two phases in July 2000 and December 2004, the progress of works for the branch line from Bargachhia to Champadanga suffered due to non-acquisition of land. The project (Bargachhia to Champadanga) was proposed for shelving in September 2014. However, the project was being considered as ongoing with anticipated throw-forward of ₹ 356.03 crore.

C. Eklakhi-Balurghat New BG line (NEFR)

This project for construction of New BG line (87.11 km.) was sanctioned in 1983-84 at an anticipated cost of ₹ 585.29 crore. Though, the section Eklakhi-Balurghat was completed and commissioned in December 2004, the scope of the project was subsequently enlarged by inclusion of three material modifications⁹ (MM) for construction of New BG line for the sections – (i) Gazole-Itahar (27.20 km.) sanctioned in March 2008 (ii) Raiganj-Itahar (22.16 km.) sanctioned in April 2011 and (iii) Itahar-Buniadpur (27.095 km.) sanctioned in April 2012. These sections were not part of the original sanctioned project and therefore, it was irregular to execute the projects as material modification to the sanctioned project (Eklakhi-Balurghat) as it violated the codal provisions relating to works to be carried out through MM. As a result of inclusion of these projects as MMs, the original project was considered as ongoing (March 2014).

1.6.4 Accretion of Ongoing Projects

In order to improve the precarious financial health of Railways, Ministry of Finance (Department of Expenditure) inter-alia suggested (2003) a freeze on new projects except those which were necessary from the safety point of view and which were commercially viable projects. It was, however, observed that during the review period 2009-14, 202 new projects at a cost of ₹ 81841 crore had been added even though there were 307 ongoing projects as on April 1, 2009. During 2009-14, only 67 out of total 509 projects were completed leaving a balance 442 projects as of March 2014.

The delay in completion of projects due to meagre fund allotments as discussed in Paragraph 1.6.9 led to accumulation of throw-forward of ₹70859 crore in respect of 307 ongoing projects as on April 1, 2009 and the same had increased to ₹185559 crore for completion of 442 ongoing projects as on April 1, 2014. Given the trend of average fund allotment of ₹10817 crore per annum¹⁰ and assuming that neither new projects would be added nor there would be cost

⁹ As per Para 1110 of Indian Railway Code for the Engineering Department, Material Modification refers to substantial changes in the scope of work or scheme which was not thought of at the original stage but which is subsequently considered necessary. The desired change/modifications should strictly pertain to the sanctioned work otherwise they would require sanction of the competent authority.

¹⁰ Average figure worked out on the basis of fund allotted during the year 2010-11 to 2013-14

escalation, more than 17 years would be required for completion of all ongoing projects incurring this huge throw-forward expenditure.

1.6.5 Projects taken up as per Budget Announcement

During 2004-09, 110 projects (NL-46, GC-15 and DL-49) were taken up on the basis of Budget Announcement and six projects were material modifications of the existing ongoing projects. Of them, four projects of SWR and one project of SR which were announced during 2005-06 to 2008-09 were not sanctioned by Railway Board till March 2014. The details of status of the remaining 105 projects are shown in *Annexure 3*.

Scrutiny of records relating to the status of these projects revealed that only 11 projects were completed. The remaining 94 projects were in progress and an expenditure of ₹13088 crore was incurred till March 2014 leaving ₹44215 crore for completion of these projects. The physical Progress of 105 projects is tabulated below:

Table No. 6: Status of Physical Progress

Range of Physical Progress	No. of Projects	Range of Period elapsed since the year of sanction (in months)
Nil Progress	24	36 to 168
Physical Progress not available	4	12 to 72
Between 1 and 25 per cent	22	36 to 96
Between 26 and 50 per cent	9	72 to 108
Between 51 and 99 per cent	22	60 to 288
100 per cent but involve throw-forward	24*	60 to 132
TOTAL	105	

*The figure includes 11 completed projects

1.6.6 Economic Viability of Project

As per extant codal provisions¹¹, no fresh investment proposal would be considered financially justifiable unless the net gain (Rate of Return) expected to be realised as a result of the proposed outlay, after meeting the working expenses or the average annual cost of service, is 14 per cent or more. Rate of Return (ROR) is worked out on the basis of anticipated traffic earnings likely to be derived on completion of the project. In respect of 126 projects¹² (29 per cent) ROR was negative. Project-wise ROR for different ongoing projects are shown in *Annexure 1 and 2*.

Range of ROR for different categories of projects is indicated in the table below:

¹¹ Para 204 of Indian Railway Finance Code Volume I.

¹² NL-78, DL-33, GC-15

Table No. 7: Rate of Return

Plan Head	No. of projects as on April 1, 2014	Percentage of viable projects (ROR)			
		14 per cent and above	Less than 14 per cent	ROR not worked out/ not available on records	ROR not made available to Audit
New Lines	165	23	119	23	NIL
Doubling	216	103	72	40	1
Gauge Conversion	61	10	45	5	1
TOTAL	442	136	236	68	2

Test check of 105 ongoing projects revealed instances of revision of ROR at the subsequent stage. The following table depicts instances where ROR was revised downward:

Table No. 8: Revision of Rate of Return

Sl. No.	Name of project	Name of the Zonal Railways	Original ROR	Revised ROR
	New Line			
1.	Karur-Salem	SR	19.47	3.73
2.	Nandyal-Yerraguntla	SCR	15.85	2.98
3.	Cuddapah-Bangalore	SCR	18.78	10.68
4.	Bagalkot – Kudachi	SWR	16.74	12.83
5.	Kakinada-Pithapuram	SCR	15.90	-11.27
	Doubling			
6.	Chengalpattu-Villupuram	SR	14.31	13.20
7.	Chandrapura-Rajabara-Chandrapura-Bhandaridah	ECR	36.00	1.49

Drastic reduction/revision of initial ROR for the projects was indicative of the fact that the initial calculation of ROR was not realistic. The details of Rate of Return in respect of all projects are shown in *Annexure 1 and 2*.

1.6.7 Detailed Review of Selected Projects

For detailed examination of various important activities such as preparation of detailed estimates, feasibility study, allotment and utilization of funds and execution, 105 projects (out of 442) of different categories (High Priority, Project with Cost Sharing, Projects with maximum time and cost overrun etc.) were test checked. The results of detailed examination of these 105 selected projects are discussed in the succeeding paragraphs:

1.6.7.1 Preparation of Detailed Estimate

After approval of the abstract estimate, the Railway Administration should undertake the final location survey, proceed with such preliminary arrangements such as land acquisition and ordering of stores etc. and undertake

the preparation of Detailed Estimates. The work should commence only after the detailed estimate is sanctioned.

Scrutiny of records revealed that:

- I. The total cost of 105 selected projects as per detailed estimates was ₹ 65320 crore. The cost was revised in 45 projects (NL-30, GC-10, DL-5). The variation between the original and revised estimate ranged between 2.92 and 535.79 per cent (NL-20.76 to 535.79 per cent, GC-2.92 to 321.36 per cent (NL) and DL-52.72 to 317.33 per cent). Variation in excess of 100 per cent was observed in respect of 32 projects (NL-25, GC-5, DL-2) (**Appendix-VI**). These variations were due to cost escalation as a result of prolonged period of execution, incomplete detailed estimate, inclusion of material modification, increase in scope of work etc. Details are shown in **Annexure- 4**.
- II. Zonal Railways took 5 to 18 years in preparation of the detailed estimates in respect of 14 projects (NL-12, GC- 2) of 9 ZRs¹³ as shown in **Appendix -VII**. Railway Board also took considerable time ranging between 1 month and 156 months for sanctioning the detailed estimates. In respect of three new line projects, Railway Board took 5 to 13 years for sanctioning the detailed estimates as mentioned below:

Table No. 9: Status of sanction of detailed estimate

Name of project	Submission of Detailed Estimate to Railway Board	Sanction of Detailed Estimate by Railway Board	Time taken	Reasons for abnormal time taken
Ahmednagar-Beed-Parli Vaijnath – (CR)	April 2004	March 2012	7 year 11 months	Not available on Zonal Railway's record.
USBRL – (NR)	1999-2000	2012	13 year	Not available on Zonal Railway's record.
Howrah-Amta including Bargachia-Champadanga (SER)	1979	February 1984	5 year	Not available on Zonal Railway's record.

- III. In respect of National Project of NEFR, the detailed estimate of ₹1762.06 crore for construction of the Bogibeel Bridge (4315.2 m) with the Guide Bunds, Sub-structure and Super-structure etc. was sanctioned by Railway Board between December 2001 and September 2010. The estimate was inflated by ₹128.81 crore due to adoption of incorrect cost of components such as earthworks, blanketing and sandwich layers for the main bridge portion (Super structure) as indicated in the table below:

¹³ (CR, ECR, ECoR, SCR, SER, SECR, SR, SWR and WCR)

Table No. 10: Details of incorrect adoption of components in Detailed Estimates

	Particulars of Work	Cost (₹ in crores)	Difference (₹ in crores)
A	Cost of earthwork for doubling from chainage 15.123 km to 32.898 km were assessed for 17.77 km Less: Actual cost of earthwork for the section excluding main bridge length 4.940 km i.e. 12.83 km (63.13X12.83/17.77) as assessed by audit.	63.13 45.58	
	Difference:		17.55
B	Quantum of Blanketing was assessed 445000 cum @ Rs 855/- per cum for 17.77 km i.e. chainage from 15.123 km to 32.898 km Less: Actual requirement of blanketing on top of formation for that sec excluding main bridge length i.e. for 12.83 km was 87885.50 cum (6.85m x 1m x 12830m), as assessed by audit.	38.43 7.51 (₹855 x 87885.5 cum)	
	Difference:		30.92
C	Cost of sandwich layer for doubling work for the chainage 5.123 km to 32.898 k was assessed for 17.77 km Less: Cost of earthwork for that section excluding the main bridge length for 12.83 km (17.77 km – 4.940 km) as assessed by audit.	9.17 6.62 (9.17 x 12.83/17.77)	
	Difference:		2.55
D	Raising, widening & strengthening of south bank and north bank dyke		77.79
		Total	128.81

Thus, it was evident that the detailed estimates were not prepared with reasonable accuracy which resulted in revision of estimates in respect of 45 out of 105 projects test checked. Delay in processing of detailed estimate and their sanction indicated that the importance of detailed estimates for efficient financial control over the execution of projects was ignored.

1.6.7.2 Feasibility Study and Engineering cum Traffic Survey

Indian Railway Code for the Engineering Department provides that the administrative sanction for a New Line Project should be accorded after conducting investigations that include Reconnaissance and Preliminary Engineering Survey of few alternative alignments and selecting the best from financial and operating point of view. The due process of consideration of the options leading up to the administrative sanction is required to be recorded and preserved in the Detailed Project Report. However, the technical sanction for commencing the execution of work should be accorded only on completion of extensive investigations and final location survey of the selected alignment.

In 12 Projects (NL-4, GC-1, DL-7) of four ZRs (CR, ER, SER and NR), no feasibility study and Engineering cum traffic survey was conducted. In respect of other projects, though feasibility study and engineering cum traffic survey was taken up prior to sanction of the project, it was observed that there were variations between detailed estimate and revised estimate. In respect of 32

projects (NL- 25, GC-5, DL-2), variation ranged between 104.95 *per cent* and 535.79 *per cent* as indicated in **Appendix-VI**.

1.6.7.3 Prioritisation of Projects

In response to observations of PAC in their 67th Report (15th Lok Sabha/2013) regarding prioritization of projects, Ministry of Railways (MoR) stated that they do prioritization every year and allot more money to only those projects which are likely to be completed in that year.

Audit observed that there was lack of consistency in prioritization of projects. It was observed that the priority accorded to the projects categorized as “High Priority” was *ad hoc* and changed in the subsequent years as mentioned below:

- (i) In ECoR, three projects were identified as ‘High Priority’ by Railway Board for the year 2012-13. Of these, two doubling projects (Simhachalam- Gopalpattnam and Vizianagaram- Kottavalsa 3rd line) were not included in the list of high priority Projects in subsequent years 2013-14 and 2014-15.
- (ii) The Bardhaman-Katwa GC project of ER had been categorized as High Priority during 2013-14 but in 2014-15, the project had been excluded from the category of High Priority Project due to failure in framing a specific schedule like fixing up the Target Date of Completion of the remaining portion of the project¹⁴ (Balgona-Katwa).
- (iii) In SWR, no consistency was noticed in prioritizing projects in case of Tornagallu-Ranjithapura, DL project which was accorded the status of ‘High Priority’ during 2012-13 and the same was deleted from the list of high priority projects in 2013-14.

The Minister for Railways in his Budget Speech (2013-14) declared 30 projects as ‘High Priority’ projects. The objectives of high priority projects were as under:

- I. Economic development of backward & downtrodden areas
- II. To cater to augmentation of traffic
- III. To ease out traffic constraints of the single line
- IV. To remove traffic bottleneck and capacity enhancement of the section.

The brief status of high priority projects is indicated in **Appendix-VIII**. A detailed review of 28 (NL- 1, GC-1, DL- 26) high priority projects revealed that:

¹⁴ *Bardhaman-Balgona commissioned in March 2011*

- I. 44The physical progress in 17 projects (NL-1, DL-16) of 10 ZRs was upto 50 *per cent* and of them, the progress of works in respect of 11 projects (NL-1, DL-10) of seven ZRs¹⁵ was 10 *per cent* or less.
- II. Though seven projects of five ZRs¹⁶ which were sanctioned on “High Priority” during 2008-12, the physical progress of these projects ranged between zero and 10 *per cent* only as tabulated below:

Table No.11: Physical Progress of High Priority Projects

Sl. No.	Name of project	Name of Railway	Year of sanction	Original target completion	Physical progress (<i>per cent</i>)
1.	Pirpainti-Bhagalpur (DL)	ER	2011-12	Not Available	0
2.	Sainthia-Tarapith - 3rd line (DL)	ER	2011-12	09/2016	10
3.	TJ-GOC Doubling with Bye pass line before Golden rock (DL)	SR	2011-12	Not fixed	3
4.	Champa-Jharsuguda-3rd line (DL)	SECR	2008-09	03/2019	10
5.	Birur-Shivani (DL)	SWR	2011-12	09/2013	10
6.	Hosadurga Road-Chickajajur (DL)	SWR	2010-11	06/2014	0
7.	Viramgam-Surendranagar (DL)	WR	2010-11	03/2014	0

From the table above, it was observed that works in respect of three high priority projects of three ZRs were not taken up (March 2014).

Thus, due to lack of consistency in prioritization of projects and lack of focused attention to prioritized projects, the physical progress of projects was minimal and thereby defeating the objectives of prioritization.

1.6.8 Achievement of Target as fixed by Vision 2020

1.6.8.1 Construction of New Lines

Construction of New lines are sanctioned for providing connectivity to the regions not adequately connected to the Railway network in order to bring them to the national main stream of development. As per Vision 2020¹⁷, Indian Railways planned to construct on an average 2500 Kms. of New Line per year. It was, however, observed that the progress in this regard was not

¹⁵ CR-1, ER-4, ECR-2, SR-1, SCR-1, SWR-1, WCR-1

¹⁶ ER, SECR, SR, SWR and WR

¹⁷ Framed by the Ministry of Railways in 2009

proportionate to its target as shown below:

Year	2009-10	2010-11	2011-12	2012-13	2013-14	Total
New Line (in Kms.)	258	709	725	501	450	2643

Source: Demand for Grants (2015-16) of the Ministry of Railways

There was continuous addition of projects as discussed in Paragraph 1.6.4 *ibid* despite being aware of the trend of GBS which was not proportionate to the requirements of the Railways. As a result, the progress of projects was adversely affected causing time and cost overrun as brought out in Paragraph 1.6.2 *ibid*. Audit observed that the reasons for slow progress were inadequate allotment of fund in addition to delay in preparation of estimate, delay in sanctioning of detailed estimate, delay in acquisition of land as discussed in Paragraphs 1.6.7.1 and 1.6.11.

1.6.8.2 Status of Gauge Conversion

In consonance with the uni-gauge policy¹⁸ (1991), Indian Railways had undertaken a number of Gauge Conversion projects for conversion of MG line to BG line since 1992 to ensure seamless movement of freight traffic and passengers in addition to avoiding trans-shipment. It was observed except during 2009-10 that Indian Railways failed to achieve the target of Gauge Conversion of 1200 kms. per year as envisaged in Vision 2020 during 2010-14 as evident from the table below:

Year	2009-10	2010-11	2011-12	2012-13	2013-14	Total
Gauge Conversion (in Kms.)	1516	837	855	605	404	4217
GBS (₹ in crore)	3580	3232	2821	2700	3103	15436

Source: Demand for Grants (2015-16) of the Ministry of Railways

Ministry of Railways in their reply to Public Standing Committee stated (April 2015) that reduced allocation of funds since 2011-12 due to near stagnant GBS was a major cause for the continuous declining trend in respect of gauge conversion.

The contention of the Ministry of Railways was not acceptable as it was observed that Gross Budgetary Support (GBS) for GC works was uniform during the period 2009-10 to 2013-14 except during 2011-12 and 2012-13 when the GBS was decreased by 13 *per cent* and 16 *per cent* respectively when compared with the GBS for the year 2010-11. The slow progress of GC works resulted in throw-forward of ₹ 27266 crore in respect of 61 projects.

¹⁸ *Standardisation of tracks into BG*

1.6.8.3 Status of Doubling

The work of doubling involves provision of additional lines by way of doubling the existing routes to enable the Railways to ease out traffic constraints of single line and increase the chartered capacity.

Year	2009-10	2010-11	2011-12	2012-13	2013-14	Total
Doubling Projects (in Kms.)	448	769	750	705	708	3380

Source: Demand for Grants (2015-16) of the Ministry of Railways

From the table above, it was observed that IR could not achieve the target of 1200 kms. of doubling works as envisaged in the Vision 2020. The number of ongoing doubling projects at the time of framing Vision Document (2009) increased to 216 projects in March 2014 with anticipated throw-forward of ₹ 37058 crore.

Audit Objective – 2: To see whether financial management was efficient with reference to the availability of funds and their optimum utilization

1.6.9 Allotment and Utilisation of Fund

Indian Railways has a huge throw-forward of ongoing projects. Availability of funds to projects and their optimum utilisation is essential for sustained progress of the projects so as to complete the projects within the stipulated period of completion thereby minimizing cost overrun. Para 615 of the Indian Railway Code for the Engineering Department provides that the Railway Administration should make a realistic assessment of the amount required for each work in progress and necessary provision should be made in the Works Programme.

Analysis of trend of fund allotment to the project vis-à-vis the actual expenditure for the 105 selected ongoing projects revealed the following:

- I. In 29 projects (NL-17, GC-2, DL-10) of 11 ZRs, the actual expenditure incurred was less than 50 per cent against the budget allotment. It was observed that the actual expenditure vis-a-vis Budget Grant ranged from 0.025 per cent to 49.54 per cent during 2009-14 as shown in **Appendix – IX**. In five projects pertaining to four ZRs (NR-1, SCR-1, SECR-1 and ER-2), no expenditure was incurred though there were allotment of fund ranging from ₹ 13 crore to ₹ 115 crore during 2009-14. The physical progress in these 29 projects ranged between zero and 46.98 per cent except in case of Agra-Etawah project where physical progress was 84 per cent.

- II. 11 Zonal Railways incurred abnormally excess expenditure ranging between 40.18 *per cent* and 1014.93 *per cent* in respect of 24 projects (NL-19, GC-2, DL-3) as indicated in *Appendix – X*.

1.6.9.1 Inadequate Allotment of Funds

An analysis of the funds demanded by Zonal Railways vis-à-vis fund allotment by Railway Board during 2009-14 revealed that in 20 (NL-13, GC-5, DL-2) projects, the funds were allotted in excess of more than 10 *per cent* as against funds demanded. Similarly, in respect of 64 projects (NL-35, GC-12, DL-17), less funds were allotted as against demanded by ZRs. The details of excess/shortage in excess of 90 *per cent* in respect of fund allotment are tabulated below:

Table 12: Abnormal variation in allotment of fund

Sl. No.	Name of the Project	Name of Zonal Railways	Funds demanded (₹ in crore)	Funds allotted (₹ in crore)	Excess / (-) Less Allotment (+) in <i>per cent</i>
	New Line				
1.	Chandigarh-Baddi	NR	43	3.06	-92.88
2.	Ratlam-Dungarpur via Banswara	NWR	10	40	300.00
3.	AIP-Puttur	SR	151	2.65	-98.25
4.	Erode-Palani	SR	235	1.49	-99.37
5.	Bowaichandi – Arambagh	SER	80	159	98.75
6.	Dhallirajahara – Jagdalpur	SECR	22	396.43	1701.95
7.	Whitefield-Kolar	SWR	72	0.32	-99.56
8.	Tumkur-Chitradurga-Davanagere	SWR	30	0.63	-97.90
9.	Shimoga-Harihar	SWR	40.5	0.58	-98.57
10.	Bangalore-Sathyamangalam	SWR	35.1	0.39	-98.89
	Gauge Conversion				
11.	Dholpur-Sirmutra	NCR	28	2.34	-91.64
12.	CUPJ-SA (via)VRI	SR	69	0	-100
	Doubling				
13.	Tarapith- Rampurhat	ER	16.05	1.31	-91.84
14.	Vijayawada – Kazipet 3rd Line with electrification.	SCR	61	1	-98.36
15.	Salka Road-Khongsar-Patch doubling	SECR	25	166.28	565.12

It was observed that in respect of Chandigarh-Baddi line of NR which was sanctioned during 2007-08 and work started in 2008-09, an expenditure of only ₹ 0.17 crore (0.05 *per cent*) was incurred upto March 2014 as against total

anticipated cost of ₹ 328.14 crore. As against funds of ₹ 43 crore demanded during the period 2009-14, only ₹ 3.05 crore were allotted during the same period.

Similarly, only ₹30.39 crore (1.02 per cent) was incurred as against total anticipated cost of ₹ 2966.99 crore in respect of Bhanupalli-Bilaspur new line project (sanctioned in 2008-09) during the period 2009-14. As against funds to the tune of ₹ 150 crore demanded during the period 2009-14, only ₹ 126.60 crore were only allotted during the same period.

The following instances bring out inefficiency in financial management in planning of funds deployment.

Table No. 13: Allotment and utilization of funds

Sl. No.	Name of the ZR	Name of the Project	Year	Fund Demanded	Fund Allotted	Utilisation	(-) Under utilization	Per centge of under utilization
1.	CR	Ahmednagar- Parli Vajinath project	2010-11	50	67.70	11.88	(-)55.82	82.45
			2012-13	20	103.98	78.83	(-)25.15	24.19
2.		Belapur-Seawood-Uran project	2011-12	55	16.70	11.07	(-)5.63	33.71
3.	NCR	Agra-Etawah	2009-10	25	45.4	28.65	(-)16.75	36.89
			2011-12	50	94.4	50.00	(-)44.40	47.03
			2012-13	90	58.80	40.17	(-)18.63	31.68
4.	SECR	Dallirajhara-Jagdapur	2009-14	22	396.43	43.15	(-)349.83	89.02

From the above table, the following were observed:

- I. In Ahmednagar- Parli Vajinath project (NL) of CR, allotted funds were not completely utilised during the years 2010-11 & 2012-13 respectively. There was under- utilisation of ₹ 55.82 crore (82.45 per cent) and ₹ 25.15 crore (24.19 per cent) during the respective years.
- II. Similarly, in Belapur - Seawood-Uran project (NL) of CR, as against the demand of ₹ 55 crore, funds to the tune of ₹ 16.70 crore were allotted during the year 2011-12. However, the actual expenditure was ₹ 11.70 crore only.
- III. In case of Agra-Etawah (NL project) of NCR, funds provided were ₹45.40 crore, ₹94.40 crore and ₹58.80 crore against the funds demanded of ₹25 crore, ₹50 crore and ₹ 90 crore during the period 2009-10, 2011-12 and 2012-13 respectively. The actual expenditure was, however, ₹ 28.65 crore, ₹ 50 crore and ₹ 40.17 crore respectively.
- IV. In SECR, it was seen that allotment of funds during 2009-14 was of ₹ 392.98 crore for the new line projects of Dallirajhara-Jagdapur (235 Km) but ₹ 43.15 crore (11 per cent) was only spent against the project.
- V. Under - utilization of funds ranged between 24.19 per cent and 89.02 per cent in these four projects.

Thus, the instances of under/excess utilisation of fund were indicative of lack of efficient financial control over optimal utilization of fund.

1.6.9.2 Allotment of Funds vis-à-vis Physical Progress

As per Para 1518 of IR code for Engineering department, a system of monitoring of relationship between the physical progress and the expenditure is essential. This implies that physical progress should be commensurate with the financial progress.

Scrutiny of records pertaining to 105 selected ongoing projects as shown in *Annexure – 5* revealed cases where physical progress was not commensurate with the financial progress. Some instances are given below:

Table No. 14: Physical Vs Financial Progress

Sl. No.	Name of project	Expenditure per annum during 2009-14 (₹ in crore)	Physical Progress (in per cent)	
			As on April 1, 2010	As on April 1, 2014
1.	Belapur-Seawood-Uran Electrified Double line (NL)/CR	5.13 to 52.99	12	15
2.	Rampurhat-Mandarhill via Dumka (130 km) with new MM for Rampurhat-Murara 3rd line (NL)/ER	63.05 to 107.05	40	40
3.	Bardhaman-Katwa (GC)/ER	0.01 to 59.80	50 (2010-11)	50
4.	Hathua-Bhatani (NL)/NER	2.80 to 20.39	28	29
5.	Chhitauni-Tamkuhi Road (NL)/NER	1.62 to 9.29	5	5
6.	Nangaldam-Talwara (83.74 Km) (NL)/NR	14.04 to 87.75	50	55
7.	Ratlam-Dungarpur via Banswara (NL)/NWR	0.7 to 13.15 (2011-14)	0.03	0.63
8.	Angamali-Sabarimala (NL)/SR	6.61 to 28.70	3	6
9.	Tindivanam-Tiruvannamalai (NL)	4.60 to 20.03	5	6
10.	Ramanagram-Mysore (DL)/SWR	108.86 to 150.44 (2011-14)	75 (2011-12)	75
11.	Ahmednagar-Parli Vaijnath (NL)/CR	11.88 to 78.83	3 (2010-11)	5

1.6.9.3 Cost Sharing Projects

In view of declining trend of internal resource generation and limited amount of funds under GBS, adoption of Cost Sharing projects with the State Governments was conceived (1995-96) and it was decided to accord priority to these projects by enhancing the budgetary allocation to match yearly

contribution of the State Governments. In 10 ZRs¹⁹, 38 projects covering a length of 3551.67 Km were taken up on Cost Sharing basis with the State Governments. Till March 2014, expenditure to the tune of ₹13134.82 crore (NL- ₹11676.03 crore, GC- ₹867.47 crore, DL- ₹591.32 crore) was incurred with an anticipated balance cost of ₹32303.09 crore (NL- ₹30202.77 crore, GC- ₹1817.07 crore, DL- ₹283.25 crore). The details of each Cost Sharing project are given in **Annexure – 5**

An analysis of the data/information furnished by the Zonal Railways revealed that the original target date of completion was not fixed for 23 projects (NL-22, GC-1). Out of the remaining 15 projects, the target date of completion was subsequently revised for 11 projects.

The physical progress of Cost Sharing projects was as follows:

Table No. 15: Physical progress of Cost sharing projects

	No. of Cost Sharing Projects	No. of Projects pending for more than five years	Expenditure incurred by Railways till March 2014 (₹ in crore)	Liabilities to be discharged by Railways (₹ in crore)
No Progress	9 (Sl.No. NL-5,15,18,20, 25,27,32,33 and 34)	1	4.80	2866.06
Less than 10 per cent	5 (Sl.No. NL-1,19,21,23, and 26)	3	226.86	3575.55
Between 10 per cent and 50 per cent	9 (Sl.No. NL-2,3,11,16,17,24, 29,30 and 31)	9	1039.89	8794.52
50 per cent and above	15 (Sl.No. NL-4,6,7,8,9,10,12,13,14, 22 and 28, GC-1,2,3, DL-1)	15	5906.24	3747.24
	38	28	6977.79	18983.37

From the table above, it was observed that progress of 23 projects out of 38 was less than 50 per cent. It was also observed that 28 projects out of 38 were pending for more than five years. Due to delay in completion of projects, the original project cost (at the time of sanction) of ₹ 20597 crore had increased to ₹40674 crore resulting in increase in financial burden of Railways from ₹10659 crore to ₹19936 crore as shown in **Annexure-6**. The brief results of examination in respect of Cost Sharing projects are given in **Appendix-XI**.

In respect of three cost sharing projects as tabulated below, the State Government refused to bear additional financial liability due to increase in land cost.

¹⁹ (CR, ER, ECR, NR, NWR, SR, SCR, SER, SECR and SWR)

Table 16: Time and Cost Overrun

Sl. No.	Name of the project	Remarks	Cost Overrun (₹ in crore)	Time Over run
1	Nangal Dam – Talwara BG rail link/NR	The reason for delay in completion of this project was that HP Government backed out of its commitments of providing land free of cost. The physical and financial progress as on 31 March 2014 was 55 per cent and ₹ 37.03 crore respectively.	1013.45	The works relating to the project commenced in 1982-83@.
2	Deoband-Roorkee/NR	Uttarakhand Government backed out of its commitment of 50 per cent share. The physical and financial progress as on 31 March 2014 was 10 per cent and ₹42.39 crore respectively.	176.91	12 months
3	Ranchi–Lohardaga (NG to BG conversion/SE R)	The anticipated cost of the project was increased from ₹ 147 crore to ₹ 699 crore. Revised estimate was sent to Railway Board in 2013, which is still pending for sanction due to its non-acceptance by the State Government. The physical and financial progress as on 31 March 2014 was 80 per cent and ₹ 602.38 crore respectively.	552.01	85 months

@ Original Date of completion not fixed. Time over run could not be worked out in absence of target date of completion.

Thus, due to slow progress, project cost was revised significantly and as a result State Governments in the above projects declined to share the enhanced cost.

Audit Objective – 3: To see whether there was adverse impact on physical progress and the cost of the project due to deficient planning

Efficiency in execution of projects plays a vital role in completion of projects in a time bound manner so as to minimize time and cost overrun. Deficiency at the planning phase has adverse impact on timely completion of project. In

addition, delay in acquisition of land often contributes to the time and cost overrun of the projects.

A detailed study of the execution of two National Projects²⁰ in North Eastern Region was conducted to assess the efficiency in planning and execution of projects.

1.6.10 Extra Expenditure due to Deficient Planning

I. Execution of Spurs and Guide Bund without technical approval of design

Spur is a structure which is constructed transverse to the river flow to divert streams from the Guide Bunds and to protect them from severe erosion by reducing velocity of river flows.

In connection with the construction of Bogibeel Bridge over the river Brahmaputra, the work of construction of two spurs in the South bank was undertaken by Northeast Frontier Railway (NEFR) during 2007-08 to divert the river flow so as to facilitate construction of South Guide Bund. Construction of spurs, however, could not restrict the velocity of the river flow which resulted in damage to the spurs. In order to protect the spurs, another contract was executed in March 2008 at a cost of ₹1.07 crore. Despite such protective measures, the location of the guide bund finally had to be shifted by 250m from its planned location resulting in wasteful expenditure of ₹15.63 crore as shown in *Appendix – XII*. It was observed that the technical approval of the competent authority (Chief Engineer/Con-III) for the drawing/design of the spur was not obtained before undertaking the work.

Similar problems were also encountered in the North bank where despite adoption of protective measures for diversion of river flow, the North Guide Bund had to be shifted by 375m from its original location resulting in wasteful expenditure of ₹16.50 crore as shown in *Appendix – XII*. It was observed that due cognizance was not taken of the suggestion of Hydraulic Experts regarding assessment of river configuration before undertaking the works in view of changes in the river flow conditions after every flood season, though the fact was well known to the Railway Administration from the Report on Model studies, River studies/training/protection works, etc conducted by RITES in April, 2006. In both the cases, detailed study of the behavior of the course of the river was not carried out before undertaking construction of guide bund and spurs which resulted in wasteful expenditure of ₹32.13 crore.

Further, it was observed that shifting of guide bunds by 625m (250m in South end and 375m North end) resulted in increase in the length of the

²⁰ *Lumding –Silchar GC Project and Bogibeel Bridge over the river Brahmaputra (NEFR)*

bridge by 625m which also necessitated increase in the scope of work due to addition of 5 more spans involving avoidable extra expenditure of ₹195.70 crore as shown in *Appendix – XIV*.

- II. In January 2009, Railway Board issued directives to all Zonal Railways to adopt 25 tonne loading standards for rebuilding the bridges in all ongoing and future projects. Accordingly, N.F. Railway construction organization floated three tenders in March 2009 for rebuilding of three major bridges (25tonne loading standards) in connection with the gauge conversion of Rangiya – Murkongselek section (510.33Km) of NEFR.

Subsequently, Railway Board in April 2009, delegated powers to CAOs/PCEs²¹ for adoption of MBG-1987²² loading standard as the new loading standards (January 2009) might delay the execution of projects as a whole. The dispensation granted by Railway Board for adoption of MBG-1987 loading standard was, however, not given due cognizance while finalizing the above tenders. The Tenders were finalized between April 2009 and July 2009 at a total value of ₹ 48.21crore.

While the works relating to earthwork on permanent diversion was in progress, Chief Engineer (Construction) / N.F.Railway observed (May 2009) that adoption of MBG loading standard would considerably reduce the number of bridges which would require strengthening of sub-structure for bearing 25 tonne axle load and also reduce the time for completion of the whole project.

In view of the above, the contracts were short closed and the work relating to super structure was executed through the three other existing contracts which were executed between January 2010 and April 2010 at a total value of ₹ 43.62 crore for completion of the work as per MBG 1987 standard. Despite such decision, the work of approach earthwork continued till June 2011 and an expenditure of ₹3.79 crore was incurred in this regard against the contracts which were short closed. Aggrieved by the decision of the Railway Administration for premature termination of the contracts, the contractors claimed ₹9.95 crore as compensation which was not settled by the Railway Administration till March 2015.

Thus, failure of the railway administration in considering the guidelines (April 2009) of Railway Board for adoption of MBG-1987 loading standard and continuance of the work of earthwork even when the decision was taken for adoption of MBG-1987 loading standard resulted in loss of ₹ 3.79 crore.

III. **Diversion of Alignment**

In Angamali-Sabarimala new line project of Southern Railway, it was noticed that the project was delayed due to delay in land acquisition and

²¹ CAO/PCE refers to Chief Administrative Officer/Principal Chief Engineer

²² MBG-1987 refers to mixed Broad Gauge 1987 which standardizes the load-bearing capacity of bridge

change in alignment. The physical progress was only six *per cent* since the sanction of the project in 1997-98. As a result, entire expenditure of ₹ 137.41 crore incurred on this project remained idle.

IV. Change in the Design

An agreement was executed for “Construction of well foundation and RCC sub-structure on Bridge No.7 (Bonam River) in connection with Jharsuguda- Rengali doubling Project (East Coast Railway). The contract value of ₹ 7.16 crore was increased to ₹ 9.08 crore due to change in design of the bridge to build two piers (Pier No.5A and Pier No.5B) in place of Pier No.5 with 3 spans (3 x 100 ft) in place of 2 spans (2x 150ft). Change in design was necessitated due to defective soil investigation that failed to detect the presence of sheet piles of existing abandoned bridge.

1.6.11 Delay in execution of project due to non availability of land

Section 4.4 of the Forest (Conservation) Act, 1980 stipulates that if a construction project requires utilization of forest as well as non-forest land, work should not be started even on the non-forest land till the receipt of approval of Central Government for the release of the forest land.

A review of status of land acquisition in respect of 105 selected projects as shown in the **Annexure 7** and the impact of delay in acquisition of land on the project revealed that:

- I. As against total land of 45555 hectares, 20988 hectares land was actually acquired till March 2014 leaving a total shortfall of 24567 hectares (54 *per cent*). The significant shortfall of more than 75 *per cent* was noticed in 38 projects (NL-22, GC-8 and DL-8) across all ZRs.
- II. The process for land acquisition remained incomplete despite lapse of period ranging from 11 months to 265 months. The abnormal delay of more than 16 years in acquisition of land was noticed in eight projects (NL-7 and GC-1) of five ZRs as mentioned below:

Table No. 17: Delay in acquisition of land

Sl. No.	Name of the project	Year of Sanction	Delay in acquisition of land (in month)	Physical progress as on March 2014 (in <i>per cent</i>)	Time over run from the original DOC in months
1	Belapur-Seawood-Uran Electrified Double line (NL)/CR	1996-97	204	15	168

2	Khurda Road-Bolangir (NL)/ECoR	1994-95	228	12	Not Assessed*
3	Bhind-Etwah (part of Guna-Etwah project) (NL)/NCR	2002-03	265	99	180
4	Dallirajhara-Jagdapur (NL)/SECR	1995-96	228	18.06	Not Assessed*
5	Bangalore-Hassan via Shrvanbelagola (NL)/SWR	1996-97	202	70	Not Assessed*
6	Hubli-Ankola (NL)/SWR	1997-98	200	10	Not Assessed*
7	Kadur-Chickmagalur-Sakeleshpur (NL)/SWR	1996-97	210	49	Not Assessed*
8	Jabalpur-Gondia including Balaghat-Katangi/SECR	1996-97	216	69	13

**Original DOC was not available on Railway record and hence the time overrun could not be worked out.*

- III. Even after 21 years of sanction of Khurda-Bolangir New Line Project (ECoR) in 1994-95, part detailed estimate of only two stretches totalling 112 Km. was prepared and sanctioned. Detailed estimate for the rest 177 Km. was not prepared by the Railway Administration (ECoR).
- IV. Due to delay in acquisition of land, following two New Line projects were abandoned / frozen during the review period (2009-14) in SWR.

Table No. 18: Abandonment of projects due to delay in acquisition of land

Sl. No.	Name of project	Year of sanction	Objective of project	Physical progress (per cent)	Infructuous Expenditure (₹ in crore)	Reasons for abandoned/frozen
1.	Bangalore-Sathyamangalam (SWR)	1997-98	Socio-economic consideration	Nil	0.00	Non-clearance by Forest department and Central Empowered Committee.
2.	Hubli-Ankola (SWR)	1997-98	Socio-economic consideration	10	60.78	Non-clearance by Forest department and Central Empowered Committee.
				Total	60.78	

In case of Hubli-Ankola, New Line project of SWR, Zonal Railways failed to adhere to the provision contained in rule 4.4 of the Forest (Conservation) Act 1980, which clearly stipulates that if a project involves forest as well as non-forest land, work should not be commenced unless clearance of Forest Department is obtained. Had the Railway Administration got forest clearance prior to commencement of the project, the expenditure of ₹ 60.78 crore could have been avoided.

- V. In WR, four contracts were awarded without availability of clear site and as a result, contracts were terminated prematurely resulting in loss of ₹ 12.02 crore as shown in *Appendix-XV*.
- VI. In nine projects pertaining to four ZRs (ER, SCR, SWR and WR), delay in acquisition of land resulted in payment of enhanced cost for the land amounting to ₹ 409.18 crore as tabulated below:

Table No. 19: Extra expenditure due to price variation

Sl. No.	Project	Zonal Railway	No. of projects involved	Extra expenditure due to price variation (₹ in crore)
1.	Bangalore-Hassan NL	SWR	5	242.92
2.	Munirabad-Raichur NL			
3.	Rayadurga-Tumkur NL			
4.	Birur-Shivani DL			
5.	Ramanagaram-Mysore DL			
6.	Deoghar-Dumka (NL)	ER	2	51.55
7.	Deoghar-Sultanganj (NL)			
8.	Peddapalli- Nizamabad (NL)	SCR	1	113.73
9.	Ratlam-Khandwa (GC)	WR	1	0.98
	Total	4	9	409.18

The details of status of acquisition of land in respect of selected projects are shown in *Annexure 7*.

1.6.12 Ongoing Projects in North-east Region

Northeast Region comprising of eight states namely Assam, Arunachal Pradesh, Meghalaya, Manipur, Nagaland, Mizoram, Tripura and Sikkim including a part of West Bengal and Bihar are being served by Northeast Frontier Railway. Development of rail infrastructure in North Eastern Region is one of the priority areas of the Ministry of Railways. The N.F.Railway, Construction Organization is presently executing 34 projects under three major Plan Heads - New lines (21 Nos.), gauge conversion (7 Nos.) and doubling (6 Nos.). Of them, 11 projects were declared as 'National Projects'.

Projects important from strategic viewpoints in Jammu and Kashmir and North-East region or developmental projects which result in greater integration of these regions with the rest of India were categorized as “National Projects” in 2005. For the implementation of the National Projects, funds to the tune of 25

per cent of yearly requirement are being provided by the Railways through Gross Budgetary Support (GBS) and *75 per cent* funds are being provided by the Ministry of Finance as additionality to GBS.

Audit reviewed the overall status of all Projects in North-eastern Region and detailed study of one National Project-“Lumding–Silchar Gauge Conversion Project”.

1.6. 12.1 Flow of Fund and Progress of National Projects

Out of 11 National Projects, four projects (Sl. No. 1,2,10 and 11 of the table below) were sanctioned during 1996- 2003 and they were declared as National Projects’ in 2005. The demand, final allotment and overall physical progress of 11 National Projects during 2009-14 revealed that though the projects were declared as ‘National Projects’, allotment of fund was not commensurate with the requirement for the projects as indicated in the table below:

Table No. 20: Allotment of funds for National Projects

(₹ in crore)

Sl. No.	Name of project	Original Date of completion	Demand	Final Allotment	Remarks
1.	Kumarghat-Agartala	03/2007	141.5	32.5	Project delayed by 8 years. Construction of MG line completed. GC is yet to be started.
2.	Bogibeel Bridge	03/2007	2400	1691.09	Overall Physical progress is <i>75 per cent</i> .
3.	Jiribam-Imphal	03/2009	2850	1972.35	Overall Physical progress is <i>34.04 per cent</i> .
4.	Tetelia-Byrnihat	03/2009	315	170.7	Overall Physical progress is <i>15.1 per cent</i> .
5.	Dimapur-Kohima	03/2012	183	8.05	Overall Physical progress is nil.
6.	Agartala-Sabroom	03/2012	951	540	Overall Physical progress is <i>29.31 per cent</i> .
7.	Bhairabi-Sairang	03/2014	651	170.96	Overall Physical progress is <i>10.45 per cent</i> .
8.	Sivok-Rongpo	03/2014	750	83.92	Overall Physical progress is <i>2 per cent</i> .
9.	Byrnihat-Shillong	03/2016	170	3.55	Overall Physical progress is Nil.
10.	Lumding-Silchar	03/2005	2650	2038.69	Project delayed by 10 years. Overall Physical progress is

					87.97 per cent.
11.	Rangiya-Murkongselek	03/2009	2050	2543.05	Overall Physical progress is 91.83 per cent.

Scrutiny of records further revealed that:

- I. Out of 11 National Projects, three projects were sanctioned between 1996 and 1999 and were continuing for more than 15 years. The remaining eight projects were ongoing for periods ranging from 2 to 11 years and of them, in respect of seven national projects²³, the physical progress as of March 2014 ranged between 0 and 34 per cent. The original cost of these seven projects increased substantially from ₹ 7651.23 crore to ₹ 20313.75 crore (265 per cent).
- II. Out of 11 National Projects, the target dates of nine projects were revised ranging from five years to 10 years. The details of status of National Projects are shown in *Appendix- III*.
- III. The construction of new Metre Gauge (MG) line between Kumarghat and Agartala (109 km.) was sanctioned in July 1996. The project was completed and commissioned in October 2008. Meanwhile, following commencement (1999) of gauge conversion of Lumding-Silchar (LMG-SCL) section, MG section between Kumarghat and Agartala was also taken up for gauge conversion as this is the branch line of LMG-SCL section which would otherwise be gauge-locked. This section is the only rail link for passengers and movement of essential commodities including industrial inputs to Tripura. As a result, the original project cost of ₹ 575 crore increased to ₹ 1242.25 crore. In view of uni-gauge policy²⁴ (1991) of Government of India and sanction of gauge conversion of LMG-SCL section, construction of New MG line between Kumarghat and Agartala lacked justification and is also indicative of deficient planning of Indian Railways.



Thus, slow physical progress leading to revision of target for completion of projects, indicated that due priority was not given to completion of National Projects in the North-East resulting in time and cost overrun. The details of

²³ Sl. No. 3 to 9 of Table No.20

²⁴ For conversion of all tracks with uniform Broad Gauge standard

year of sanction, estimated cost, schedule date of completion, physical progress etc. in respect of National projects is shown in *Annexure 1 and 2*.

1.6.12.2 Lumding- Silchar Gauge Conversion - A National Project

The states of Assam, Manipur, Mizoram and Tripura are linked to one of the oldest MG Railway lines between Lumding and Silchar passing through a hilly terrain. This line is the only rail link for movement of essential commodities including industrial inputs to these states. In order to augment the line capacity of the section, it was decided (1988) in consultation with Geological survey of India to construct an additional MG line between Lumding and Silchar. The construction of the line along the proposed alignment was not constructed even after Planning Commission's clearance (1992-93).

Meanwhile, the main line from Guwahati to Lumding was converted into Broad Gauge (BG) in January 1994, isolating the Lumding- Silchar MG line and related finger lines of Barak valley from Brahmaputra valley. In consonance with uni-gauge policy of Government of India of 1991, Indian Railways planned (1996-97) a straight conversion of Lumding - Silchar MG line (215Km) to BG with a diverted 'New Line' from Migrendisa and Ditokcherra (31.7 Km). After Final Location Survey (FLS) by M/s RITES (2001), the detailed estimate for ₹ 677.75 crore was sanctioned between 2000 and 2002 for completion by 2005. The aggregate cost with the inclusion of 2 branch lines, namely, Silchar-Jiribam (50.385 km) and Badarpur-Baraigram-Kumarghat (117.82 km) had gone up to ₹1676.76 crore as shown in *Appendix-XVI*. A number of revisions took place thereafter and the latest revised estimated cost worked out to ₹5185.44 crore (2014). The increase in project cost *inter alia* included the revision in the scope of works, extra expenditure due to deficient planning, escalation and inclusion of five branch lines as a Material Modification. However, Lumding - Silchar section was flagged off (opened to traffic) by the Minister for Railways from New Delhi on 27 March 2015 despite the fact that the requisite clearance was not granted by the Commissioner of Railway Safety (CRS) for 100 Km out of 215 Km. section.

Scrutiny of records relating to execution of works relating to GC of LMG-SCL section revealed that though the works commenced in 1999, till 2004-05 the recorded financial progress was just 22 *per cent* mainly due to meagre funding. While poor funding contributed towards tardy progress of the project, impact of improper planning in selection of un-surveyed alignment in the New Line resulted in substantial time and cost overrun of the whole GC project. The 'New Line' (31.7 km) section (Migrendisa to Ditokcherra) falling in the LMG-SCL gauge conversion section was the most critical section and the success of the whole project was largely dependent on the successful completion of this new line section. Further scrutiny, however, revealed the following:

- I. The new alignment from Migrendisa to Ditokcherra was excluded from the ambit of the FLS of the project on the ground that its FLS was already done for MG standard in 1988 by N.F. Railway with the assistance of Geological Survey of India and on the recommendation of the Dy.CE/Con/LMG-SCL, Railway Administration decided that there would not be much change in the alignment in BG than what was adopted for MG standard, as decided by the PHOD²⁵ Committee. Soil/Geo-tech investigation done by M/s. RITES (2001) was limited to selected boreholes in bridges, tunnels of the whole of section including diverted alignment which proved to be inadequate to unearth the complexities of the terrain and gave rise to many serious complications at the time of construction of tunnels and bridges as detailed below:

A. Construction of Embankment:

The N.F. Railway Administration executed six contracts for earthwork in formation etc. during 2001 to 2003 for the diverted new line alignment (Migrendisa to Ditokcherra). During the progress of work, the cutting slopes caved in and failed to resist the over burden pressure due to poor soil strata. Railway Administration, therefore, awarded two consultancy contracts²⁶ in 2004 and 2005 for conducting geo tech investigation²⁷. In the report, the consultant observed that frequent soil slips and landslides was due to natural as well as induced slope instability. They further stated that the lack of drainage, unplanned excavation etc. at the toe of the slopes to accommodate the BG alignment were some of the major reasons for the landslides.

Audit observed that in order to protect the slope failures and improvement of soil stability, another 19 contracts at an aggregate contract value of ₹ 19.22 crore were executed between 2007 and 2011 for construction of additional side drains with modified design and other protection works. Had the Railway Administration conducted geo-tech survey prior to execution of formation works and adopted necessary protective measures, the instances of slope failures and consequential extra expenditure due to execution of protection works at a cost of ₹19.22 crore could have been avoided as shown in *Appendix-XVII*. On being pointed out (May 2013), Railway Administration admitted (March 2014) the audit findings.

B. Construction of tunnels

From the FLS conducted by Railway and Geological Survey of India in 1988, the Railway Administration was well aware of the criticality of the section

²⁵ Principal Head of Department

²⁶ M/s. PK.De in 2004 and in 2005 to M/s. SK.Mitra and Associates

²⁷ The objective of detailed geo-technical investigation is to interpret the engineering properties of sub-surface stratum for the purpose of design of foundations and sub-structure. The investigation includes collection of geological information of the region, the climate of the project site, seismic condition of the project site, assessment of liquefaction (sudden loss of shear strength of the loose fine grained sands due to earthquake induced vibration) potential of the foundation strata.

Daotuhaja to Ditokcherra²⁸ (Chainage Km 74.500 to km 129.450). M/s. RITES was not awarded the geo-tech survey of the stretch selected for diverted new line alignment from Migrendisa (km 98.5) to Ditokcherra (km 129.450). As per Minutes of meeting (August 1999), investigation by M/s. RITES included boring holes limited to two portal locations irrespective of the length of tunnel. On the basis of data thus collected, the design was finalized, which had led to numerous problems such as excessive lateral thrust due to squeezing and lateral shifting, unexpected land slide, chimney formation, etc. and consequent deformation and collapse of tunnel necessitating further reconstruction and frequent change of design of tunnels.

Scrutiny of records revealed that out of 4368.4 meter tunnels constructed during 2009-14 between Daotuhaja to Ditokcherra, 543.2 meter collapsed resulting in avoidable extra expenditure of ₹ 88.09 crore for their rehabilitation or reconstruction as indicated in the table below:

Table 21: Statement showing the extra expenditure due to failure of tunnels

Sl. No.	Tunnel No.	Length of tunnel (in meter)	Length of tunnel collapsed in meter	Contract Value/SCA & Month of award of contract (₹ in crore)	Extra expenditure incurred for rectification (₹ in crore)
1	Tunnel No.6	240	25	18.39/19.39 (February 2007)	2.01
2	Tunnel No. 7	1687	23	59.35/88.61 (October 2005)	8.93
3	Tunnel No. 8 (Statement-I)	446	28	38.21 (January 2006)	5.90
4	Tunnel No. 10	3010	79.8	110.46 (October 2005)	23.92
5	Tunnel No. 11	890	174.4	39.44/46.67 (January /2006)	19.85
6	Tunnel No. 12 (Statement-II)	586	28	27.56 (January 2006)	13.22
7	Tunnel No. 13	204	160	21.66 (January 2006)	14.26
8	Tunnel No. 16	405	25	21.75 (October 2006)	-
				Total	88.09

*Details are shown in Appendix- XVIII and XIX

The Railway Administration attributed the reasons for collapsing of tunnels as follows:

- i. Low over burden and inadequate rock cover, frequent occurrence of cavities and chimney formations, encounter with rock mass consisting of mainly shales (Tunnel No. 6).
- ii. Poor rock mass classification, squeezing ground conditions owing to high in-situ stresses present in the surrounding rock mass (Tunnel No. 7 and 8).

²⁸ Falling in the section Migrendisa (km 98.5) to Ditokcherra (km 129.450)

- iii. Frequent and prolonged stoppage of semi-finished work of the tunnel during progress mainly due to militancy or contractual reasons (Tunnel No. 10).
- iv. Excessive lateral thrust due to squeezing and lateral shifting (Tunnel No. 11).
- v. Unexpected land slide as well as chimney formation (Tunnel No. 12 and 13).
- vi. Water seepage, failure in heading due to high pressure, slope failure, chimney and cavity formation (Tunnel No. 16).

The matter was brought to the notice of the N.F. Railway Administration in April 2013. Railway Administration stated (March 2014) that appropriate caution and discretion were exercised for selection of the tunnel and bridge sites. They further asserted that adequate geo-technical investigation for the tunnels was done by RITES. Contention of the Railway Administration was not acceptable as the soil /Geo-tech investigation was done by RITES only for selected boreholes in bridges and tunnels.

C. Construction of Bridges:

I. A contract was executed in May 2002 for rebuilding of sub-structure of Major bridge No. 572 on well foundation along the diverted alignment (Migrendisa and Ditokcherra) over the river Barak between Badarpur and Sukritipur at a cost of ₹13.56 crore with the stipulated date of completion by September 2004. In January 2005, the well of pier no. 4 collapsed and submerged in the river bed as no requisite precautionary measure was taken by the contractor to stabilize the well. The Railway Administration, therefore, decided (May 2005) to suspend the entire work covered under this contract after incurring expenditure of ₹11.16 crore. Subsequently, on the basis of a risk and cost tender, the balance work was awarded (September 2008) to the same defaulting contractor at a cost of ₹ 19.03 crore. The work was completed at a cost of ₹ 16.99 crore. This resulted in extra expenditure of ₹ 14.60 crore as the construction of bridge was completed at a cost of ₹ 28.16 crore as against the original cost of ₹ 13.56 crore.

The N.F. Railway Administration failed in recovering the assessed risk cost of ₹ 11.77 crore from the firm as the arbitrator awarded (July 2010) verdict for refunding an amount of ₹ 1.61 crore by the defaulting firm to the Railway. The amount, however, could not be recovered as the firm appealed in the High court and the case was sub-judice (March 2015).

On being pointed out (May 2013), N.F. Railway Administration stated that as the work was of special nature, a consultant was engaged to study the problem of severe tilt and give a suggestion so that the bridge work could be completed. The contention of the Railway Administration was not tenable as they should have taken necessary precaution during execution of works of well foundation

keeping in view the special nature of work as admitted by the Railway Administration itself. Collapse of the well foundation was indicative of the lack of adequate monitoring on the part of the Railways for successful completion of the works by the contractor which finally translated into additional expenditure of ₹14.60 crore as indicated in *Appendix XX*.

- II. In the diverted alignment Daotuhaja to Ditokcherra, a contract (₹15.13 Crore) was executed in February 2006 for construction of Bridge No.158. After incurring expenditure of ₹2.21 crore, the contract was terminated in November 2008 due to slow progress of work. On scrutiny of site details and other parameters, Chief Engineer/Con-I revised (October 2009) the earlier decision of construction of a major bridge on pile foundation and decided to go for RCC arch box culvert as the construction of box culvert would be economical as well as technically easier. The work was completed at a cost of ₹10.51 crore. The change in the scope of work resulted in wasteful expenditure of ₹ 2.21 crore.

In yet another instance, the design for construction of Girder Bridge²⁹ was changed to box culvert after detailed site verification. The revised decision of the Railway Administration led to avoidable extra expenditure of ₹ 6.93 crore on account of construction of bridge on pile foundation which was subsequently discontinued.

Railway Administration stated (May 2010) that after detailed site inspection, it was decided that though bridge with smaller opening would be sufficient to cater to the discharge, embankment might be constructed by executing earthwork and that justified the change in the scope of work. The contention of the Railway Administration was not tenable as they took three years in verification of actual site conditions and deciding the revised scope of work. Railway Administration's failure to take appropriate decision prior to execution of works resulted in wasteful expenditure of ₹ 9.14 crore³⁰.

Thus, defective planning and failure to conduct Geo-Tech survey of diverted new alignment before execution of works had resulted in extra expenditure of ₹ 131.05 crore.

1.6.12.3 Status of Projects other than National Projects in NEFR

A review of data/information relating to projects revealed the following:

- I. Out of 23 projects other than National Projects, in five projects³¹ (NL-2, GC-2, DL-1), the physical progress at the end of March 2014 was 100

²⁹ Bridge No. 157 at Km 81.106 between Daotuhaja and Phiding stations

³⁰ ₹2.21 crore in respect of Bridge No.158 and ₹6.93 crore in respect of Bridge No.157

³¹ Sl. No. 2,4,22,27 and 29 of Annexure 3 (NEFR)

- per cent.* However, these projects were shown as ongoing with anticipated throw-forward of ₹ 268.29 crore to complete the balance works.
- II. In respect of seven projects, (NL-4, DL-3) the physical progress was 0 *per cent.* Of them, in respect of two projects (Sl.No. 12 and 19) the original target date of completion was March 2012 and March 2014.
- III. Physical progress of the remaining 11 projects ranged between 2.38 *per cent* and 85 *per cent.*
- IV. Four projects³² are continuing for more than 15 years since their commencement. The project cost was revised from ₹ 1475.32 crore to ₹ 4126.55crore.

Thus, it is observed that due priority was not given to complete these projects in a time-bound manner. Delay in completion of these projects led to cost overrun of ₹ 3768.34 crore (249 *per cent*) as against the original sanctioned cost of ₹1079.75 crore.

1.6.13 Monitoring of Project Implementation

Tardy progress of ongoing projects was primarily due to failure of the Indian Railways in observance of extant provisions for efficient project management. An efficient system of prioritizing projects with its limited resources should be in place for effective utilization of resources. This, in turn, requires proper monitoring system right from the apex level i.e. Ministry of Railways (Railway Board) to the spending units as slippage of target leads to cost overrun besides delay in achieving the intended objective of the projects.

The existing system of apprising the status of projects to Railway Board through PCDO and also to Chief Engineers and Financial Adviser and Chief Accounts Officer (FA&CAO) was merely of a periodic return and no effective measures were taken on the basis of such reporting.

Indian Railways rolled out an all India application “Indian Railways Project Sanction and Management (IRPSM)” in April 2011 which *inter-alia* aimed at monitoring physical and financial progress of works. Project was also meant for catering to the needs of Railway Board, Zonal HQs and Divisions etc. related with Works Programme sanctions and management, online creation and forwarding of ‘New Works’ proposals along with Modifications to ‘Works in Progress’ from field units to Railway Board, monthly updation of status of work for monitoring of Physical and Financial progress of works etc.

³² Sl. No.1, 2,4,24,25 and 28 of Annexure 3 (NEFR)

While examining the system in place for monitoring the implementation of projects and its effectiveness, it was observed that the complete information about a project including financial progress was not available in the IRPSMS. The application in its present form was only statistical and hardly served the purpose of monitoring project implementation. There was no effective monitoring system to ensure correctness of data fed into the system. The system lacked information in respect of allotment and utilization of funds. Sanction of Railway Board for developing other modules relating to estimation, contract execution and management, drawing of completion reports, maintenance of works register, etc., were awaited (March 2015).

1.6.14 Conclusion

Target dates for completion of projects were either not fixed or not available on records of the Railway Administration. The physical progress was also slow where target for completion of project was fixed. Projects were delayed due to delay in preparation/sanction of estimate and delay in acquisition of land. Delay in completion of projects resulted in cost overrun of ₹ 1.07 lakh crore and huge throw-forward of ₹ 1.86 lakh crore in respect of 442 ongoing projects.

During 2009-14, 202 projects were added to the existing shelf of ongoing projects ignoring existing fund constraint and as a result only 67 projects were completed during the same period. Audit observed that 75 projects are ongoing for more than 15 years and of them, three projects are 30 years old. Despite budgetary support from the Ministry of Finance, progress of National Projects was far from satisfactory resulting in substantial time and cost overrun.

The rate of return was less than the prescribed benchmark of 14 *per cent* in 236 (53 *per cent*) ongoing projects. There was lack of consistency in prioritisation of projects. While the allotment of funds was not proportionate to the requirement, there were several instances of under-utilisation of funds which had adverse impact on the physical progress of projects.

The progress in respect of cost sharing projects was badly affected as the State Government declined to bear the enhanced cost of the project and as a result, expenditure to the tune of ₹13135 crore incurred on Cost Sharing Projects remained unproductive.

Due to deficient planning, there were several instances of collapse of tunnels, bridges, diversion of alignment etc. resulting in extra/wasteful expenditure in addition to idle investment of ₹ 137.41 crore. Delay in land acquisition caused slow progress of the project and two projects had to be frozen due to failure in acquisition of land resulting in wasteful expenditure of ₹ 60.78 crore.

1.6.15 Recommendations

- I. *Indian Railways needs to revisit all projects which are ongoing for more than 15 years and do not fulfill the prescribed Rate of Return (ROR) for assessing the viability of the projects.*
- II. *Indian Railways needs to reassess the ROR of all ongoing projects for focused approach on economically viable projects and judicious allocation of funds.*
- III. *Indian Railways needs to ensure timely preparation of estimates with reasonable accuracy for efficient financial control over the project cost.*
- IV. *Indian Railways needs to prioritise projects on short term basis and ensure adequate funding so that the projects are completed in a time bound manner.*
- V. *Indian Railways needs to ensure optimal utilization of funds so as to avoid mismatch between allotment and utilization of fund.*
- VI. *Indian Railways needs to strengthen the coordination with the participants (State Government and other entities) of the cost sharing projects for ensuring availability of land and committed funds so that the project can be completed in a time-bound manner.*
- VII. *Monitoring of execution of projects both at the Railway Board and at the Zonal Level needs to be strengthened to avoid wasteful expenditure and blocking up of fund. Indian Railways Project Sanction and Management System needs to be redesigned for exercising effective financial control over the project implementation.*
- VIII. *Timely completion of strategically important 'National Projects' needs to be ensured in a uniform and coordinated manner.*

Chapter 2: Management of Works Contract in Indian Railways

2.1 Introduction

Indian Railways (IR) executes a wide range of works for creation of assets such as construction of new lines, doubling and gauge conversion etc. and maintenance works such as maintenance of track, renewal of track, maintenance of office buildings/quarters etc. Generally, the new works of creation of assets (new lines, doubling and gauge conversion etc.) involving huge costs/investments are executed by the Construction wing of the Zonal Railways and repair/maintenance of track related works, bridges, buildings etc. are executed by the Open Line³³ (Division) of the Zonal Railways through agency of contractors under the supervision of the executives of the Engineering Department of the Railways. During 2011-14, IR spent ₹ 39,028 crore towards payments to contractors executing these works across all the Zonal Railways. Of this, ₹ 17,046 crore was spent by Open Line wing of Engineering Department on maintenance works (₹ 3,909 crore) and track renewals works (₹ 13,137 crore); while ₹ 21,982 crore was spent by Construction wing of Engineering Department on construction projects of new lines, doubling, gauge conversion and other new construction works. Thus, 43.68 per cent of total expenditure was incurred on repair and maintenance of assets and 56.32 per cent on creation of new assets during 2011-12 to 2013-14. The average expenditure on payment to contractors was around ₹ 13,000 crore per annum (*Annexure-I*). Ensuring competitive rates, engagement of qualified and capable contractors to execute the works including time bound completion of work are the essence of efficient and effective contract management. Efficient and effective contract management is also vital to keep the Railways in a continuous running condition and also to widen its activities.

Audit reviewed the tenders and contracts (completed and under progress) across the Zonal Railways to assess whether:

- (i) *due procedure/rules were followed in invitation and processing of tenders and award of contracts;*
- (ii) *the works were properly executed and completed in time ;*
- (iii) *dues from contractors were recovered as per conditions of contract, and*
- (iv) *the arbitration cases were effectively dealt with.*

³³Open Line i.e. Divisions of the Zonal Railways responsible for maintenance of fixed assets viz tracks, bridges, building etc.

The position of tenders and contracts awarded by the Open Line and Construction wing of the Engineering Department and test checked in audit is shown in the Table below:

Table 2.1			
Sl.No.	Particulars	Total	Test checked in audit
1.	Tenders finalised	8,664	1,215
2.	Contracts completed	5,646	927
3.	Contracts in progress	1,004	313

The basis of selection of tenders and contracts for test check in audit is indicated in **Appendix I and Appendix II.**

The Audit, covering all the 16 Zonal Railways³⁴ was carried out during August 2014 to December 2014 and the audit findings were discussed in Exit Conferences held with the Zonal Railways Administration. A Consolidated Report was issued to Railway Board (RB) in February 2015 and findings were also discussed in the Exit Conference held with RB on 16th April 2015. The reply of RB furnished in June 2015 has been taken into account and incorporated in relevant paragraphs given below.

2.2 Audit Findings

2.2.1 Tender process

2.2.1.1 E-tendering

E-tendering is an internet based process wherein the complete tendering process beginning with advertising, placing of tender documents online, submission of bids and required documents by the tenderers, evaluation of bids and finally ranking of bidders based on offer value are done online.

A review of implementation of E-tendering system in respect of works tenders in IR revealed that presently only tender documents are being placed on website in IR and the contractors who intend to bid for the tender download the physical copy of tender documents. After that, no online procedure is followed in IR. While complete E-tendering was implemented in case of stores tenders in IR through a dedicated site of Indian Railway Electronic Procurement System (IREPS), the same is yet to be implemented in case of works tenders on

³⁴Excluding Metro Railway/Kolkata

IR despite issue of instructions for computerisation of the tendering process by Vigilance and RB in November 2003 and in June 2004 respectively.³⁵

When the matter was taken up (February 2015), Railway Board in their reply (June 2015) stated that sanction for e-tendering in works contracts had been issued in May 2015 and is expected to be completed during the year. The reply of the RB indicated that implementation of complete e-tendering has not been taken up despite instructions for complete e-tendering issued as far back as in November 2003.

As complete implementation of E-tendering would eliminate malpractices related to bid evaluation and ensure transparency in the bidding process, Railways should take immediate steps for implementation of complete e-tendering in respect of works contracts.

2.2.1.2 Level of participation in tenders

The purpose of open tendering is to ensure that Railways are able to get the best agencies at competitive price. Details of the level of participation in 1,215 tenders reviewed in the 16 Zonal Railways are given in *Annexure II*. Further analysis of level of participation by the bidders in the works tenders is shown in the Table below:

Table 2.2.1.2		
No. of Bids	No. of Tenders	Percentage of the total Tenders
Single bid	306	25
Two bids	325	27
Three bids	217	18
Four bids	131	11
Five and above bids	236	19
Total	1,215	100

From the above Table, it was observed that in 52 per cent of the works tenders, only two or less than two bidders quoted their rates. A competitive rate is possible when there is participation in Tender by multiple contractors. Where

³⁵ *Railway Board's Letter No.2002/CE-I/CT/38/Policy New Delhi, dated 16-11-2003 and 2004/CEI/Misc./MR's Instructions New Delhi, dated 21-6-2004.*

the number of participants is one or two, the rates quoted cannot be regarded as competitive.

Railway Board in their reply stated that the less number of tenderers was due to non-availability of fund, existing work load on the contractors, difficult terrain and working condition.

The inordinate delays in execution of contracts in large number of cases on account of causes attributable to Railways could be a reason for such low participation in Tenders. Railways need to identify and eliminate reasons for low participation to ensure competitiveness in bidding process.

2.2.1.3 Discharged tenders

With a view to avoiding wastage of time and resources, RB issued instructions³⁶ that due care should be taken while processing tenders ensuring that estimates and schedules are correctly prepared, adequate time is given to tenderers to submit their bids and tenders are properly advertised to ensure adequate participation.

In IR, 1,161 tenders were discharged³⁷ during the period 2011-14. Out of the above, 647 discharged tenders valuing above ₹ 1 crore were test checked in audit. Zonal Railway-wise details of discharged works tenders are given in *Annexure-III*. Analysis of discharged works tenders revealed the following:

- Tenders were discharged for reasons such as high rates (243), ineligible tender/offer received (171), non-availability of site/design/approvals (126), backing out of lowest bidder (49), low participation (33), reasons not available on record (16) and work not required (9).
- The incidence of discharge of tender was high in NR (170), SECR (134), WCR (126), SWR (119) and ECOR (102).
- Out of 647 tenders discharged during April 2011 to March 2014, retendering was done in 343 tenders (53 per cent). The average time taken for retendering was eight months. The delay in retendering indicated that there was no immediate need or justification for the work planned for.
- The average delay of 359 days was observed in respect of 295 tenders (46 per cent), which were not retendered till March 2014.
- Railway Board in their reply stated that due to receipt of ineligible tenders, high rates or suspected cartel formation or withdrawal of eligible L1

³⁶Railway Board Letter No.2000/W-I/NE/NL/10 Dated 17/10/2001

³⁷The invitation of offer i.e. a tender can be withdrawn any time before acceptance of offer by the Railway which invited the offer due to reasons such as work no longer required, defect in tender schedule, non-receipt of required approvals/sanctions, high rates or unworkable rates or technical ineligibility of the offer(s) received, low participation, which is termed as "discharge of tender". As per the guidelines issued by the Central Vigilance Commission (CVC), tenders are also discharged on backing out of lowest tenderer.

(tenderer quoting lowest rate), discharge of tender was inevitable to ensure transparency. Audit observed that though Railways incurred an extra expenditure of ₹ 50.29 crore in 52 cases in 12 Zonal Railways and saved ₹ 122.48 crore in 68 cases in 15 Zonal Railways on retendering, discharging of the works tenders due to non-availability of site/design/approvals (126) and work not required (9) which could have been avoided were not addressed in their reply. The delay in taking up the works afresh was also not addressed.

Considering the loss of time for finalising a fresh tender, RB may take action to minimise the cases of discharged tenders ensuring that tenders are called for only after all preliminary works are completed.

2.2.1.4 Award of contracts pending preliminary preparation

To ensure successful and timely execution of contracts, Railway Board issued instructions³⁸ that tenders are to be called for only after detailed site investigations, ensuring availability of clear site and adequacy of funds for execution of contracts in time. Review of selected 1,215 tenders invited during 2011-14 revealed the following:

- 477 tenders³⁹ were awarded during the period without ensuring completion of prescribed preliminary works such as preparation of drawings, availability of site and ensuring availability of funds.
- The information regarding completion of preliminary works before calling of tenders was not placed on record by the executing authority before the Tender Committee (TC) despite provisions in this regard in Para 1253 of Indian Railway Code for Engineering Department and Para 612 of Finance Code. Repeated instructions were also issued by the RB regarding calling of tenders only after ensuring completion of preliminary works.
- There were delays ranging from 5 days to 1405 days in execution of 313⁴⁰ contracts out of these 477 contracts. The average delay was 342⁴¹ days per contract.

³⁸Railway Board's letter No. 72/WI/CT/43 dated 21-9-1972, 30/W2/3/33 dated 29-8-1980, 85/W1/CT/9 dated 22-2-1985

³⁹CR-25, ECR-6, WCR-68, SCR-13, ER-78, NR-16, NFR-17, NWR-32, NER-14, SR-10, SER-78, SWR-16, WR-8, NCR-24, ECoR-18, SECR-54

⁴⁰CR-18, ECR-6, WCR-41, SCR-8, ER-49, NR-16, NFR-16, NWR-20, NER-11, SR-10, SER-54, SWR-15, WR-7, NCR-23, ECoR-6, SECR-13

⁴¹CR-360, ECR0, WCR-287, SCR-433, ER-321, NR-323, NFR-347, NWR-301, NER-364, SR-418, SER-361, SWR-311, WR-246, NCR-384, ECoR-305, SECR-374 (IR average: 342)

- In 675 out of 927 contracts in progress, extensions were given due to award of those tenders without ensuring completion of preliminary works, as detailed in *Annexure VIII*.

In reply, RB stated that Zonal Railways were being advised to ensure that the tenders were floated only after detailed site investigation, ensuring availability of clear site etc. However, Audit observed that similar orders were issued as far back as in year 1972 and reiterated in the years 1980, 1983, 1985, 1990, 1993, 2000 and 2001 but were being ignored in a routine manner. RB may, therefore, prescribe a suitable regulatory mechanism at Zonal Railways to ensure that compliance of the instructions to invite tenders after completion of preliminary works is monitored by the TC or the accepting authority before Letter of Acceptance (LOA) is issued by the Railways.

2.2.1.5 Time taken to finalise the tender

As per instructions of RB⁴², tenders are to be finalised within the period of validity, which includes consideration of tender by nominated TC, acceptance of the TC recommendations and issue of LOA within the period of validity mentioned in the tender, to ensure economy in expenditure and best utilisation of Railway Funds⁴³ as laid down in Paragraphs 1202 and 1210 of Indian Railway Engineering Code.

A review of the time taken in 1,211 tenders⁴⁴ finalized out of 1,215 tenders selected for test check during the period of review revealed the following:

Table 2.2.1.5		
Sl. No	Particulars	Details
1	Number of Tenders test checked	1211
2	Minimum time taken to finalise the tender	2 days
3	Maximum time taken to finalise the tender	555 days
4	Number of tenders delayed in finalization	717
5	Letter of Acceptance issued without delay	155

⁴² Railway Board letter No. 60/777/RS dated 13-2-1960, No. 94/CE-I/CT/4 dated 17-9-1997

⁴³No. 90/CEI/CT/1 dated 3-6-1992.

⁴⁴ Difference due to four discharged cases in ECoR.

6	LOA issued with delay of 1 to 15 days	881
7	LOA issued with delay beyond to 15 days	175

- i) There were delays in finalization of tender in 717 tenders⁴⁵ (59 per cent) out of 1,211 tenders. Tenders were finalised in the extended validity period beyond 90 days in 707 tenders and beyond 120/180 days in 10 tenders⁴⁶. As against time of 90/120 days normally provided in most tenders for finalization of offer and issue of LOA, analysis of the time taken by Railways to finalize the tenders revealed that time taken to finalize the tenders ranged from a minimum of two days on SECR to a maximum of 555 days on ER.
- ii) Delay in finalization of tenders was also contributed by delay in issue of LOA after finalization of tender. LOA are required to be issued within period of validity of offer. Audit observed that while LOA were issued on the same day in 155⁴⁷ cases, there was delay ranging from 1 to 15 days in 881⁴⁸ cases and 16 days to 195 days in 175⁴⁹ cases. Timely issue of LOA assumes significance as this would ensure early commencement of work by the contractor within 15 days of issue of LOA, as per prevailing practice and as indicated in the LOA that the contractors are required to start the work within 15 days of issue of LOA.

Audit also observed that no reasons were recorded on files for delay in finalization of tenders or delay in issuing LOA. The same was not analysed or action taken to ensure timely completion of tender process.

There are no specific timelines prescribed for the various activities involved in processing of tenders including that of preparation of tender schedules, briefing notes by Zonal Railways (except NR which has prescribed a time schedule). There is only one general direction⁵⁰ that the tenders are to be evaluated and to be finalized at the earliest and before the expiry of validity of offers, which is normally 90 days. RB, therefore, needs to examine this issue and prescribe timelines for various phases based on initiative taken by NR.

⁴⁵ CR-67, ECR-71, WCR-58, SCR-54, ER-11, NR-24, NFR-10, NWR-55, NER-26, SR-73, SER-33, SWR-66, WR-15, NCR-30, ECoR-60, SECR-64

⁴⁶ SCR-1, ER-4, NFR-1, NWR-2, NER-1, WR-1.

⁴⁷ CR-11, ECR-19, WCR-9, SCR-1, ER-2, NR-10, NFR-6, NWR-25, NER-11, SR-4, SER-7, SWR-1, WR-13, NCR-21, ECoR-3, SECR-12.

⁴⁸ CR-46, ECR-56, WCR-52, SCR-37, ER-51, NR-57, NFR-52, NWR-50, NER-52, SR-57, SER-64, SWR-68, WR-63, NCR-56, ECoR-57, SECR-63.

⁴⁹ CR-19, ECR-3, WCR-7, SCR-40, ER-25, NR-5, NFR-20, NWR-0, NER-3, SR-17, SER-7, SWR-9, WR-2, NCR-1, ECoR-14, SECR-3

⁵⁰ Railway Board Letter No. 94/CE-I/CT/4 dated 17-9-1997

RB in their reply stated that delay in finalisation of tenders takes place due to reasons such as verification of credential of tenderers or for negotiations etc. RB vide their letter dated 19.06.2015 instructed Zonal Railway and Railway Production Units to finalise tenders within validity period of bids and avoid delay in issuance of LOA as far as possible. RB may ensure compliance of its instructions.

2.2.1.6 Delay after the issue of letter of acceptance

The General Conditions of Contract (GCC) (Clause 8-Part-I) require that the Contract Agreement should be executed by the contractor within seven days of receipt of LOA. As per clause 16 (4) of GCC, the successful bidder is required to submit a Performance Guarantee (PG) within 30 days from the date of issue of LOA and on payment of penal interest beyond 30 days up to 60 days. In case the contractor fails to submit PG even after 60 days, the contract shall be terminated duly forfeiting Earnest Money Deposit (EMD) and other dues. A Contract Agreement should be signed only after deposit of PG by the tenderer. Thus a contradiction exists in policy instructions.

A review of submission of PG in the 1,215 tenders revealed that there was delay beyond 30 days in submission of PG in 474 contracts⁵¹ (40 per cent). Delay beyond 60 days was observed in 94 contracts⁵² out of which delay beyond 180 days was observed in 25 contracts⁵³. Penal action as envisaged in Clause 16(4) of GCC to treat these contracts as terminated forfeiting EMD and recovery of other dues was not taken in 165 cases⁵⁴.

On the other hand, out of 1,215 tenders selected for test check, contract agreements were signed in 1,196 tenders⁵⁵ (contracts were yet to be executed in 19 tenders finalized during the period from 2-5-2011 to 21-1-2014). Analysis of the remaining 1,196 cases revealed the following:

- The average time taken in these 1,196 tenders for entering into contract after issue of letter of acceptance was 110 days and the average time taken ranged from 83 days (CR and WCR) to 174 days (SER) as indicated below.

⁵¹ CR-25, ECR-27, WCR-18, SCR-46, ER-31, NR-10, NFR-28, NWR-29, NER-27, SR-28, SER-38, SWR-38, WR-25, NCR-32, ECoR-30, SECR-42

⁵² CR-5, ECR-9, WCR-2, SCR-13, ER-1, NR-0, NFR-10, NWR-4, NER-4, SR-4, SER-10, SWR-10, WR-4, NCR-3, ECoR-5, SECR-10

⁵³ CR-2, ECR-3, SCR-4, NFR-2, NWR-2, NER-3, SER-1, SWR-3, NCR-1, SECR-3, WR-1

⁵⁴ CR-2 - ₹ 1.35 lakh, ECR-20 - ₹ 13.89 lakh, WCR-3 ₹-0.34 lakh, SCR-10 ₹ 6.78 lakh, ER-0, NR-10 ₹ 2.28 lakh, NFR-14 ₹ 11.07 lakh, NWR-7- ₹ 2.73 lakh, NER-12- ₹ 20.56 lakh, SR-6- ₹ 0.49 lakh, SER-21- ₹ .10 lakh, SWR-20- ₹ 5.47 lakh, WR-14- ₹ 2.54 lakh, NCR-21- ₹ 2.75 lakh, ECoR-2-, SECR-3- ₹ 0.24 lakh

⁵⁵ CR-76, ECR-78, WCR-66, SCR-78, ER-74, NR-72, NFR-78, NWR-74, NER-66, SR-78, SER-78, SWR-78, WR-77, NCR-75, ECoR-73, SECR-75



- Contracts were executed within the prescribed period of seven days in only 10 cases.⁵⁶
- The time taken to sign the contract was between eight and 180 days in 1029 cases.⁵⁷
- Abnormal delay of more than six months was noticed in 128 contracts⁵⁸ and more than one year in 29 contracts⁵⁹. No action was taken by Railway Administration to treat these 157 contracts as terminated and forfeit the earnest money.
- In 22⁶⁰ out of 1,196 cases, the contractor failed to commence the works based on LOA.

Railway Board in their reply stated that most successful tenderers start work soon after issue of LOA and even before depositing of PG and delay in submission of PG or delay in signing of contract did not necessarily mean delay in commencement of work.

The reply of Railway Board was not tenable as it was contrary to the provisions of Paragraphs 1256 and 1259 of Indian Railway Code for Engineering Department which provide that no contractor should be permitted to commence work until the relevant contract has been signed by the parties competent to do so. As LOA does not include special conditions and other stipulations which form part of legal binding contract, there is an inherent problem in interpretation and Railways would not be able to enforce the conditions of contract in case of failure of contract or litigation. RB, thus, needs to frame a

⁵⁶ CR-6, ECR-1, ER-1, NWR-1, NCR-1

⁵⁷ CR-65, ECR-65, WCR-64, SCR-72, ER-69, NR-63, NFR-65, NWR-68, NER-60, SR-71, SER-48, SWR-56, WR-70, NCR-68, ECoR-67, SECR-58

⁵⁸ CR-3, ECR-8, WCR-2, SCR-5, ER-4, NFR-12, NR-9, NWR-5, NER-3, SR-6, SER-25, SWR-18, WR-5, NCR-5, ECOR-5, SECR-13

⁵⁹ CR-2, ECR-4, SCR-1, NFR-1, NER-3, SR-1, SER-5, SWR-4, WR-2, NCR-1, ECOR-1, SECR-4

⁶⁰ CR-8, ECOR-5, NR-3, SECR-5, SCR-1

clear policy in respect of timely signing of contract documents to avoid delays and litigation.

2.3 Execution of contracts

2.3.1 Variation in quantities/operation of new items during execution

In terms of Para 1268 of Indian Railway Code for Engineering Department, a variation of 15 to 25 *per cent* was considered as reasonable depending on the nature of the work involved. As per RB instructions⁶¹ assessment of quantities in the tender stage is to be done with due care so as to avoid scope for large modifications or addition to the existing work schedules.

The details of variations in contracts during course of execution are captured in *Annexure IV*. Analysis of the variations revealed that out of 1,215 contracts test checked in audit, awarded at a value of ₹1,729.50 crore, variations in quantities exceeding 25 *per cent* ranging from 26 *per cent* to 455 *per cent* were observed in 8,965 items such as earthwork, cement concrete, supply of cement and steel and laying and linking. Excess items were operated in 390 contracts⁶² involving a monetary value of ₹361.37 crore. New items were also operated in these contracts at a value of ₹44.38 crore.

The above analysis indicated that there was a failure in estimation and assessing the scope of work correctly. Besides, operation of excess quantities and new items resulted in increase in value of the works requiring revised PG to be collected from the contractors. Audit observed that revised PG was not collected on increased value of work in 13 Zonal Railways⁶³.

RB in their reply stated that variations sometimes become necessary due to site conditions, hidden items and change in scope of work. RB's reply is contrary to its own instructions that the detailed investigations are to be carried out and estimates framed are realistic and variations to be restricted to less than 25 *per cent* of tender quantity.

Railways need to ensure compliance of extant instructions of assessing of the quantities as exactly as possible during preparation of tenders so as to avoid large scale changes during course of execution leading to delays in execution and litigations.

⁶¹ Railway Board Letter No. 72/WI/CT/43 dated 21-9-1972, No. 90-BC-NF/7 dated 13-11-1990, Letter No. 94/CE.1/CT/56 dated 16/8/1994, No.93/WZ/PQR/SC/4/P dated 27/9/96 and No.90/WI/DL/S/1 dated 13/4/2000

⁶² CR-37, ECR-7, WCR-2, SCR-45, ER-31, NR-23, NFR-31, NWR-39, NER-10, SR-48, SER-26, SWR-21, WR-25, NCR-11, ECoR-21, SECR-13

⁶³ CR- ₹ 0.23 crore, ECR- ₹ 0.45 crore, WCR - ₹ 3.18 lakh, SCR- ₹ 0.81 crore, NR - ₹ 9.17 lakh, NFR- ₹ 2.16 crore, NWR - ₹ 1.15 lakh, SR - ₹ 0.65 crore, SER - ₹ 0.11 crore, SWR - ₹ 0.35 lakh, WR - ₹ 1.10 crore, NCR - ₹ 0.11 crore, SECR - ₹ 5.37 lakh.

2.3.2 Premature termination of contracts on administrative account

Railway Board issued instructions⁶⁴ detailing the need for adopting better contract management practices and to avoid situations like delay in furnishing detailed drawings to the contractor to avoid consequent delays in the execution of the work or abandonment or termination of contracts necessitating calling of fresh tenders for completing the work at higher cost.

During the period of review (2011-12 to 2013-14), 259 contracts were fore-closed⁶⁵ in IR. Out of this, 173 fore-closed contracts valuing above ₹1 crore were test checked in audit, the data pertaining to which is captured in *Annexure V*. Analysis of these cases revealed the following:

Sl. No.	Type of contracts	No. of contracts	Reasons of foreclosing of contracts		
			Paucity of funds	Clear Site not available	Others such as slow progress, work not required etc.
1	Maintenance	16	8	5	3
2	Other Miscellaneous works	41	28	8	5
3	Projects ⁶⁶	76	35	27	14
4	Safety	20	5	10	5
5	Track Renewals	4	0	1	3
6	Traffic Facility	16	7	3	6
	Total	173	83	54	36

Out of 173 fore-closed contracts test checked, 133 contracts were yet to be re-tendered, the time taken for retendering up to 31 March 2014 ranged from one day to 1,007 days. The Zonal Railway Administration incurred an expenditure of ₹228.24 crore on these contracts which was rendered unfruitful till 31 March 2014. In 40 contracts which were awarded afresh, the Zonal Railway Administration incurred an additional expenditure of ₹49.50 crore in 11 Zonal Railways⁶⁷ due to higher rates received in retendering.

Foreclosure in 80 per cent of the cases (137 cases) due to reasons such as paucity of funds (83 cases) and non-availability of clear site (54 cases) was indicative of defective planning and taking up works without ensuring completion of preparatory works. In 36 cases, contracts were foreclosed on

⁶⁴ Railway Board letter No. 85/W1/CT/9 dated 22/2/1985

⁶⁵ Whenever, a contract has to be closed midway due to Railway Administration's fault viz. non-handing over of clear site to the contractor, non-handing over of drawings, non-completion of preliminary works like jungle clearance/survey, paucity of funds etc, the contract is foreclosed/short-closed under clause 61 and 62 GCC.

⁶⁶ Doubling -10, Gauge Conversion-23, New Line - 38, Shed- 5

⁶⁷ CR- ₹ 3.21 crore, ECR - ₹ 7.29 crore, SCR- ₹ 10.55 crore, NR- ₹ 0.58 crore, NFR - ₹ 3.99 crore, NWR - ₹ 1.77 crore, SR - ₹ 11.11 crore, SWR - ₹ 1.24 crore. NCR ₹ 1.03, ECOR - ₹ 7.78 crore, SECR - ₹ 0.95 crore.

account of reasons such as variations, court orders, change in scope of work, work not required and slow progress on railways account.

Railway Board in their reply accepted the observations and stated that instructions were being re-iterated.

2.3.3 Termination of contract on contractors account

The conditions of contract governing management of the contracts define the roles, obligation and rights of both the parties-the Railways and the contractor. These conditions comprise of General Conditions of Contracts which are the basic conditions of the contract framework applicable to all contracts and Special Conditions of Contract which are framed to cover the specific nature of the work being tendered.

As per clause 62 of GCC when the contractor fails to execute the work to the satisfaction of Railway Administration, the contract will be terminated by issuing notices as stipulated.

During the period under review (2011-12 to 2013-14), 473 contracts were terminated in the Zonal Railways. Zonal Railway wise details of terminated cases are given in *Annexure VI*. Out of this, 265 contracts terminated in the Zonal Railways that were reviewed in audit revealed the following irregularities:

- In 163 cases, contracts initially awarded during the period from July 2006 to February 2014 at a value of ₹ 639.68 crore were terminated after incurring an expenditure of ₹99.85crore. However, these were yet to be re-tendered (March 2014). The expenditure of ₹ 99.85 crore incurred on these works was rendered unfruitful.
- In respect of 102 terminated contracts⁶⁸ which were re-tendered, the average time taken for retendering was 203 days and an extra expenditure of ₹ 83.44 crore was incurred due to higher rates accepted in retendering resulting in increasing the cost of works.

Railway Board in their reply accepted the observations and stated that Zonal Railways were being directed to ensure that the contracts terminated on contractors' account are taken up early to avoid idling of funds.

⁶⁸ CR-5, ECR-4, WCR-2, SCR-1, ER-22, NR-5, NFR-1, NWR-13, SR-8, SER-10, SWR-1, WR-9, NCR-2, ECoR-6, SECR-13

2.3.4 Price variation clause during extended period of contract

Time is the essence of contract as per GCC, and thus timely completion of works is essential to ensure that the investments made on the works achieve desired results.

In Indian Railways, Price Variation clause (PVC)⁶⁹ and Statutory Variation Clause (*to cover increase in rates of Govt. taxes and royalties*) are made part of contract conditions in respect of all tenders valuing over ₹50 lakh irrespective of time of completion⁷⁰ to safeguard against general inflation linked to specified price indices for labour, stores and fuel.

In case of extensions in execution of contract beyond original “due date of completion” due to (i) modification or change in scope of work, (ii) delay not due to Railway/ Contractor but due to neglect on part of employees of Railway or other contractors employed by railway or (iii) delay on account of Railways under Clause 17 (A) of GCC⁷¹, Railways are liable for payment of price variation. No price variation is liable to be paid on account of delay in execution on account of contractor under clause 17(B) of GCC. Granting extensions with price variation, in cases where delay in execution is due to contractors’ fault results in extending undue benefit to the contractor.

Data pertaining to payment of price variation was captured in *Annexure VII, VIII and IX*, an analysis of which revealed the following:

- Out of 1,215 tenders selected for test check, contracts were executed in 1,196 cases. In 861 contracts as detailed in *Annexure X*, there were delays in execution and price variation amounting to ₹67.78 crore was paid to the contractors in the extended period of contract. Out of this, an amount of ₹4.04 crore⁷² was paid in 13 contracts even though the delay was attributable to contractors alone.

⁶⁹ While General Financial Rules (GFR) Clause/Rule 204 (vii) states that cost plus contracts should be avoided unless un-avoidable and justified, Clause/Rule 204 (viii) provides that price variation should be provided in long term contracts exceeding delivery period of 18 months.

⁷⁰ Clause 46(A) of GCC and Railway Board letter No. 2008/CE.1/CT/Con/7 (PCE/GM) dated 15-12-2008

7117–A Subject to any requirement in the contract as to completion of any portions or portions of the works before completion of the whole, the contractor shall fully and finally complete the whole of the works comprised in the contract (with such modifications as may be directed under conditions of this contract) by the date entered in the contract or extended date in terms of the following clauses:

(i) If any modifications have been ordered which in the opinion of the Engineer have materially increased the magnitude of the work, then such extension of the contracted date of completion may be granted.

(ii) If in the opinion of the Engineer, the progress of work has any time been delayed by any act or neglect of Railway's employees or by other contractor employed by the Railway.

(iii) Failure or delay by the Railway to hand over the Contractor clear site or to give the necessary notice to commence the works or to provide the necessary drawings or instructions or any other delay caused by the Railway due to any other cause whatsoever.

⁷² CR- ₹ 3.38 crore (one agreement), SCR – ₹ 3.92 lakh (four agreements), NR – ₹ 1.78 lakh (one agreement), NWR – ₹ 2.73 lakh, SER – ₹ 13.56 lakh (three agreements), ECOR – ₹ 44.76 lakh (three agreements)

- In addition to above, out of 927 contracts in progress as on 31-3-2014, an amount of ₹321.39 crore was paid towards price variation in 760 contracts. Similarly out of 313 completed contracts in 2014-15, in 295 cases, payment of an amount of ₹66.38 crore was made towards price variation. Extensions to contracts in these cases were also granted under clause 17 (A) of GCC. i.e. delay on account of Railways. The delays of these contracts are dealt with in detail in subsequent Para No. 2.3.5.

Thus, an amount of ₹ 455.55 crore was paid to contractors towards price variation during extended period of contact due to delay in execution as detailed above. RB failed to address the issue in their reply. As payment towards price variation indicated deficiency in contract management attributable to Railways leading to delays in execution, RB needs to enforce compliance of existing instructions to ensure timely completion of contracts and avoiding cost overrun.

2.3.5 Delays in execution of works contracts

Taking into account the importance of timely completion of contracts, to analyse the causes and their impacts, Out of 6650, Audit examined the extensions granted in 1240 works contracts which included 927 contracts which were in progress till March 2014 and 313 contracts completed during 2013-14 as detailed in *Annexure VIII and IX*. The details in respect of 1240 contracts are summarised in the Table below:

Table No.2.3.5 : Status of execution of contracts

Details	Contracts in progress as on 31-3-2014	Contracts completed during 2013-14	Total (Col 2 and 3)
1	2	3	4
No. of Contracts Test Checked	927	313	1240
No. of contracts delayed beyond original date of completion.	760	295 ⁷³	1055
Percentage with reference to sample checked	82 per cent	94 per cent ⁷⁴	85 per cent
Age wise delays in execution of above contracts.			
Up to One year	336	109	445
One to Two years	186	93	279
Beyond Two years	218	87	305
Beyond Five Years	20	3	23

⁷³ Includes three contracts in CR which were terminated.

⁷⁴ Six per cent of the contracts were completed within the original date of completion

Total expenditure incurred on contracts delayed (indicated above)	₹3,320.18 crore	₹1,383.39 crore ⁷⁵	₹4703.57 Crore
Main causes of delay in contracts ⁷⁶			
(i) Site not made available	286	70	356
(ii) Plans/drawings not made available	145	30	175
(iii) Slow progress by contractor	85	35	120
(iv) Other reasons (includes paucity of funds, causes beyond control of contractor/railways such as floods, law and order problems/strike etc.)	244	160	404
No of contracts out of above, where extension is attributed to Railways alone	675 (88 per cent)	196 (67 per cent)	871 (83 per cent)
Number of delayed contracts related to Safety including Track renewal and Track maintenance works	162 (21 per cent)	86 (29 per cent)	248 (23 per cent)
Number of delayed contracts related to new lines, doubling, gauge conversion and traffic facilities	451 (59 per cent)	134 (45 per cent)	585 (55 per cent)

From the table above, it was observed that:

- Delays in completion were noticed in 1,055 (85 per cent) out of 1240 contracts, indicating that delays were more a routine than exception. Only 18 out of 1240 contracts due for completion before 31-3-2014 were completed within original date of completion.
- The extent of delays ranged from one month to one year in 445 contracts, one to two years in 279 contracts, two to five years in 305 contracts and beyond five years in 23 contracts. Thus, 49 per cent of contracts were delayed beyond one year.
- While delays in only 120 contracts (11 per cent) were due to slow progress by contractor, 871 contracts (83 per cent) were delayed on account of railways for reasons such as award of tenders without

⁷⁵Contract Value

⁷⁶ Contracts are extended multiple times on multiple reasons. The classification of cause of delay is based on primary reasons on which extensions were granted in contracts test checked in audit. Multiple extensions in same contract are not indicated.

ensuring availability of site and preparation of designs and drawings and paucity of funds.

- Apart from the cost overrun of ₹387.77 crore by way of PVC payments as detailed in preceding Para 2.3.4 full benefits of expenditure of ₹4703.57 crore incurred on unfinished works or works completed belatedly remained unfruitful for periods ranging from one month (as on 31-3-2014) to 90 months. The delays also resulted in depreciating value of assets created in form of bridges, building, tracks, materials lying at site etc.
- 23 per cent of delayed contracts (248 contracts out of 1,055 contracts) pertained to safety related works such as level crossings, Road Over Bridges, Bridges intended for replacement purposes, Track renewal etc. The delays in completing these works adversely affected the safety in train operations.
- 55 per cent of delayed contracts (585 contracts out of 1,055 contracts) pertained to projects like new lines/doublings/gauge conversion. The delay in completing these contracts in turn has cascading effect on the project as a whole or parts of projects (where projects are opened for traffic section wise) and adversely affects the expected benefits envisaged from projects/works. Expected improvements in line capacity/increase in capacity of sheds for repairs and maintenance could also not be achieved as anticipated. Delays in contracts pertaining to projects like new lines, gauge conversion and doubling also result in adverse impact on timely delivery of augmentation of capacity works of Railway.

Shortcomings in contract management leading to delays in implementation of projects were commented upon in Audit Para No.3.1 of Report No.34 of 2010-11. The Railway Administration in their Action Taken Note while accepting the delays stated (March 2013) that the delays in execution were unavoidable due to reasons such as non-availability of assured funds. RB stated that system improvement is a continuous ongoing process and Railways have taken necessary corrective actions on deficiencies and lapses. RB also stated that cases of failures of contracts have been analysed and conditions which were causing impediments in project execution have been removed/simplified.

The analysis of Audit in the present study, however, indicated that there was scope for improvement in the execution/completion of contracts in IR despite necessary corrective actions taken by RB. Instructions issued to call for tenders only after ensuring completion of preparatory works reiterated from time to time were not being followed even now. There is a need to monitor each activity with proper co-ordination and extensions should not be allowed in a routine manner.

Railway Board in their reply stated (June 2015) that extensions in date of completion become necessary due to reasons such as civil disturbances, law and order problems, sabotage, other contractors or government departments works, material availability, change in scope of work, accidents or mixed nature like default of railway and contractor. The fact remained that as per test check of execution status of 1240 contracts, it was seen that most of the delays were attributable to failure of Railways' planning, preparatory works before award of tenders. The trend of extensions and resultant delay in execution of contracts indicated that extensions to contracts have become a norm rather than exception of contract management in IR which is required to be improved upon.

2.3.6 Recovery of dues from the contractor

Various recoveries⁷⁷ are to be made from the contractor's bills. The recoveries are to be incorporated in the bills prepared by the executive in charge of the work in the field i.e. the Deputy Chief Engineers in Construction and Senior Divisional Engineers in Open Line. The recoveries proposed are then checked for correctness in the Accounts Office with relevant field documents before the bill is passed for payment.

The correctness of these recoveries in respect of 1,215 contracts where bills were passed for payments were test checked in audit. Zonal Railway-wise details are shown in table below. Analysis in audit revealed that an amount of ₹6.12 crore was short-recovered towards Income Tax, Sales Tax/VAT, Seigniorage Charges and Building and Construction Workers Cess in 179⁷⁸ contracts in 10 Zonal Railways.

Table 2.3.6

Category	Amount of short recovery (₹ in lakh)	Zone wise details
1	2	3
Income Tax	5.16	SCR - 1.53, NR- 0.25, NFR - 1.41, NWR 0.61 and ECOR-1.36
Sales Tax/VAT	142.92	NR - 44.42, NFR 4.36, SER 93.9
Seigniorage charges	170.72	SCR 6.67, SER- 164.05

⁷⁷As per conditions of contract, several recoveries as a part of complying with the statutory obligations imposed on the contracts by various statutes of central and state/local laws. Besides these, the administration is also entitled to recover hire charges towards hire of tools and machineries, supply of water and electricity and failure of contractor to employ qualified supervisors. The statutory deductions to be made at source are Income tax in compliance with section of 194-C of IT Act, Sales Tax/Value Added Tax (VAT) in compliances with local Sales Tax/VAT laws, Building and construction workers cess (BOCW) in terms of BOCW Act 1996, seigniorage/royalty charges on minor minerals consumed in the work in compliance with Minor Minerals Act of the State.

⁷⁸ CR-1, SCR-5, NR-17, NFR-40, NWR-6, SER-59, SWR-1, WR-36, ECOR-2, SECR-12

Building and Construction Workers Cess	293.85	CR-0.71, SCR-2.27, NR-9.55, NFR-93.91, NWR-3.02, SER-85.42, SWR-5.05, WR-90.94, SECR-2.98
Total	612.65	

The short recovery of the above dues indicated the need for strengthening the machinery of internal check in this regard.

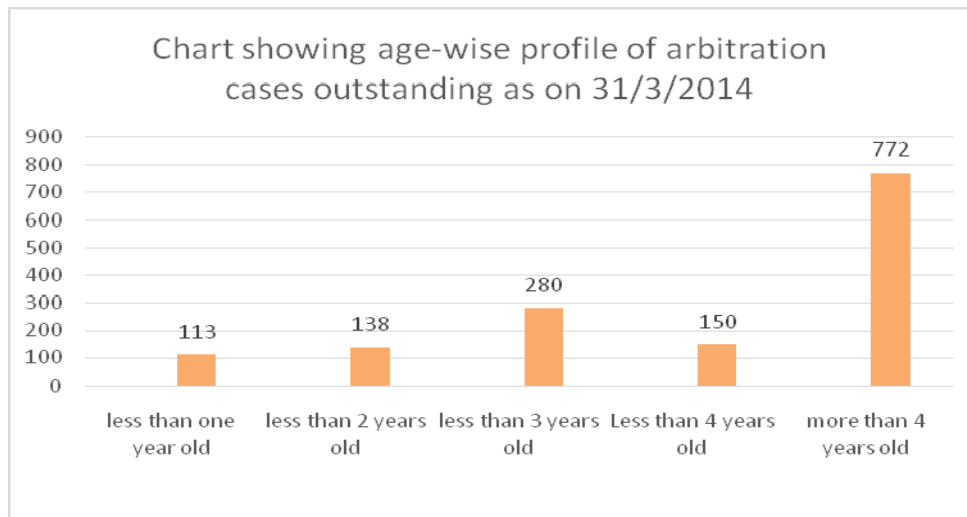
RB in their reply while accepting the audit observations stated that necessary directions have been issued to ensure timely recovery of dues on all accounts from contractors.

2.3.7 Arbitration

With the advent of the Arbitration and Conciliation Act in January 1996, Railways also revised the existing arbitration clauses in the Standard/General Conditions of Contract. Thus, the contractual clauses envisage not only a procedure for resolving disputes but also provide for timely disposal of these cases.

Zonal Railway wise data of Arbitration cases are captured in *Annexure XI and XII*. Analysis of data of Arbitration cases revealed the following:

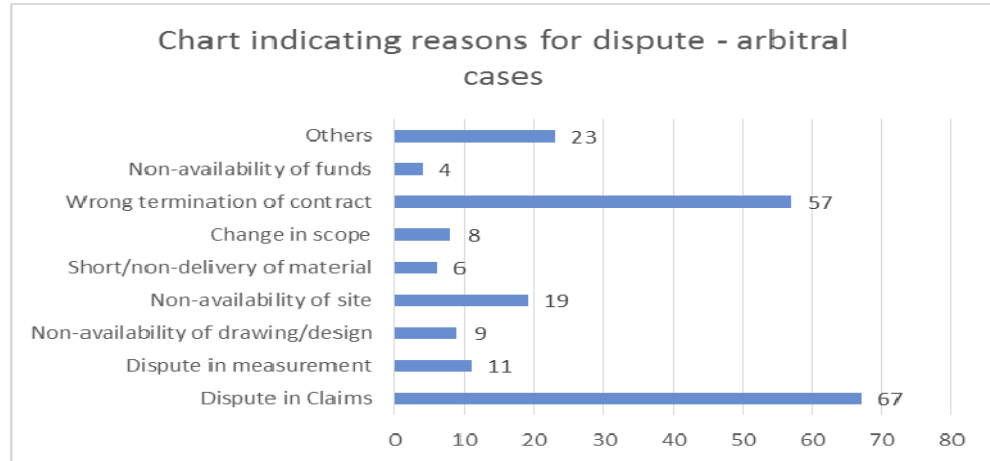
- There were 1,372 Arbitration cases pending as on 31-3-2011. During the period from 2011-12 to 2013-14, 466 new arbitration cases were added and 379 arbitration cases were settled. The age-wise profile of the Arbitration cases 1,453 outstanding as on 31-3-2014 is indicated below:



- Out of 379 cases, 101 cases were settled in favour of Railways and 278 cases were settled in favour of contractors. More than 73 per cent of cases (278 cases) decided against the Railways indicated poor contract management and improper dealing of arbitration cases by the Railways. An amount of ₹31.40 crore was paid by IR towards arbitral awards during

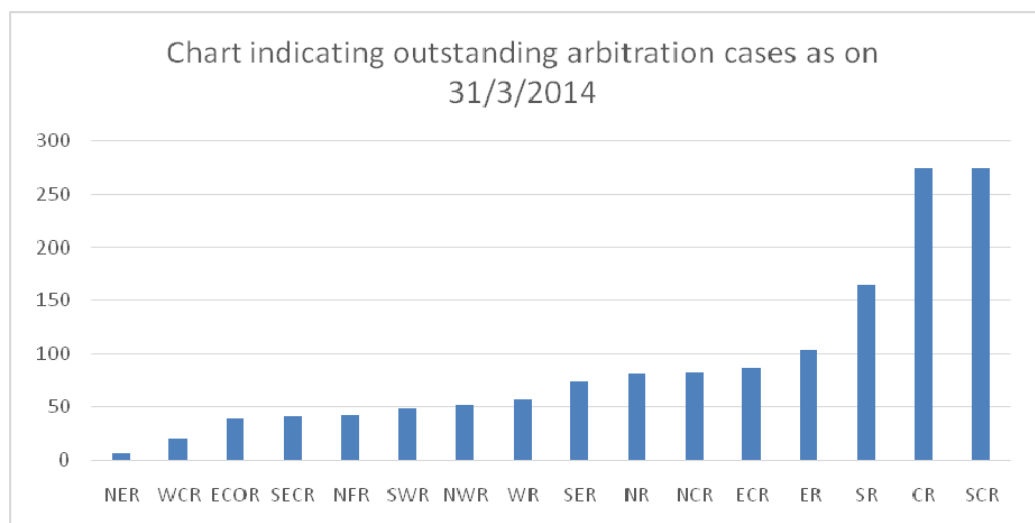
the period which could have been avoided by better contract management.

- The reasons for the disputes in the cases settled during the period 2011-12 to 2013-14 are indicated in the Graph given below:



These cases were regarding delay in payment of final bills and release of Security Deposit (SD)/EMD arising out of change in scope of work, delay on railways account due to site designs or funds or delay in making payment for variations pending approval. These disputes could have been avoided with better contract management practices. The Arbitration process itself was prolonged despite specific timelines prescribed for dealing with arbitration process such as referring to Arbitral Tribunal (120 days), submission of counter claim (60 days) etc. Audit observed in 89 cases (out of 214 cases) test checked where delays were noticed, the average time taken for referring the claim to arbitral tribunal ranged from 9 days to 1,856 days averaging to 515 days as against 120 days prescribed.

Zonal Railway wise position of outstanding arbitration cases is indicated below:



As against the time of 60 days provided for appointment of arbitral tribunals, there was delay in nomination of arbitration tribunal in 89 cases⁷⁹ (58 per cent). The time taken to refer to arbitration tribunal from date of recording claim ranged between 9 days (SWR) and 1,734 days (NWR) and 1,856 days (WR).

2.4 Conclusion


Efficient planning and effective implementation of each activity of tender processing and contract execution is essential to ensure timely completion of contracts. Audit examination, however, revealed lapses in tender planning, processing and contract management. E-tendering which ensures transparency in tendering process, is yet to be implemented fully in IR. Level of participation in tenders was less than two tenderers in more than 50 per cent of cases and needs urgent attention. Despite specific instructions by RB and their re-iteration from time to time that Railways should invite tenders only after completion of preparatory works, audit observed that the tenders were invited by the Zonal Railways without completing the required formalities which led to delay in execution of contracts. Only a very few contracts were completed within the due date mentioned in the contract and extensions were granted in a routine manner. Timely execution of works contracts is necessary for completion of maintenance works as well as Railway Projects for safe running of trains and infrastructure development of the Railways as delay in execution of these contracts will adversely affect the infrastructure development as well as safe running of the trains.

Improper contract management also led to discharge of tenders and foreclosure/short closure/termination of contracts resulting in additional expenditure on retendering. There were delays on the part of Railways in referring the claim of contractors to arbitration tribunal and majority of arbitration awards went in favour of contractors indicating poor/improper contract management and improper dealing of arbitration cases.

2.5 Recommendations

- I. To ensure timely completion of contract works and for efficient utilization of resources, RB needs to ensure that the codal provisions of Indian Railway Engineering Code and various RB's instructions issued from time to time are strictly followed by the Zonal Railways right from tender planning stage to awarding and execution of contracts.*

⁷⁹CR-12, ECR-4, WCR-4, SCR-20, ER-2, NR-1, NFR-5, NWR-7, SR-3, SER-8, SWR-9, NCR-2, ECoR-2, SECR-5, WR-5

- II. To avoid time and cost overrun, time-lines for various processes involved in tendering and awarding of contracts need to be clearly defined and monitored at appropriate stages.***
 - III. For maintaining transparency and achieving competitive rates, RB needs to take measures to introduce complete E-Tendering.***
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Chapter 3: Dedicated Freight Corridor Projects

3.1 Introduction

The Tenth Five Year Plan 2002-07 projected that freight traffic was expected to increase at the rate of five *per cent* per annum with originating freight expected to increase from 489 million tons in 2001-02 to 624 million tons in 2006-07. Based on this, in the Mid Term Appraisal of tenth five year plan, need for Dedicated Freight Corridors (DFC) on selected high density corridors⁸⁰ was projected to meet long term requirement of movement of freight traffic more efficiently and economically. The DFC was to create additional rail transport capacity, improve operational efficiency, reduce cost of operation and carry higher volumes of freight traffic. Hon'ble Minister for Railways (MR) announced (April 2005) construction of high capacity, high speed DFCs along the Golden Quadrilateral (GQ), separating freight traffic from passenger traffic on trunk routes. Later on, Committee on Infrastructure constituted (May 2005) a Task Force, chaired by Member Planning Commission to prepare a concept paper on Delhi-Mumbai (Western) and Delhi-Howrah (Eastern) dedicated freight corridor projects and to suggest a new organizational structure for planning, financing, construction and operation of these projects. Ministry of Railway (MoR) appointed (July 2005) RITES Limited⁸¹ for conducting feasibility and Preliminary Engineering Cum Traffic Survey (PETS) of both Eastern and Western corridors. Simultaneously Government of India (GOI) also requested (July 2005) Government of Japan's technical cooperation to assist in the feasibility assessment of DFC project. Based on the result of preliminary study, Government of Japan decided (November 2005) to conduct feasibility study.

3.1.1 About the Project

For the purpose of Designing, Planning, Construction, Maintenance and operation of Dedicated Freight Corridors, a Special Purpose Vehicle (SPV) called Dedicated Freight Corridors Corporation of India Limited (DFCCIL), New Delhi was incorporated as a Government Company under Companies Act, 1956 in October 2006 under the Administrative Control of MoR. It was decided that:

- i. The DFCCIL was to function as an 'Infrastructure Manager' offering non-discriminatory access to IR.

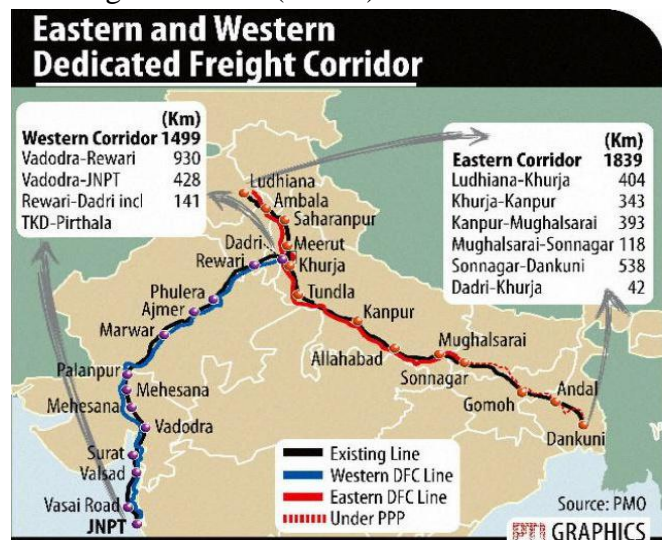
⁸⁰ Corridor which connects major urban centres of Mumbai, Delhi, Kolkata and Chennai are called as Golden Quadrilateral (GQ). The diagonals of this GQ connects Delhi to Chennai and Mumbai to Kolkata although the total route length of GQ and its diagonals cover 16 per cent of the total route kilometres of Indian Railways only, the corridors are High Density corridors carrying about 58 per cent of the total freight traffic and 52 per cent of passenger traffic of IR.

⁸¹ Rail India Technical and Economic services Ltd

- ii. To complement the efforts of DFCCIL, IR was required to up-grade their own feeder routes connecting to the DFC also and to procure, own, and operate/run freight trains on the DFC network.
- iii. DFCCIL would not own any rolling stock or crew, nor have any role in fixing tariffs or collection of revenue. The IR, on the other hand would own and maintain all rolling stock, book all traffic and utilize the new network by offering its train to run on the DFC. In the process, all freight revenue would flow directly to IR and DFCCIL would be reimbursed for its services through a network usage charge, called the Track Access Charge⁸².
- iv. A major part of DFC tracks would run along the existing alignment of IR and for the balance portion or detours, MoR would acquire requisite land and give it on license to DFCCIL.

The DFCs on the Western and the Eastern routes involved construction of 2770kms.⁸³ dedicated freight railway lines to carry predominantly coal and steel on the Eastern dedicated freight corridor (EDFC) and containers on the

Western dedicated freight corridor (WDFC). The western corridor of 1469 km. will connect Jawaharlal Nehru Port Trust (JNPT) in Mumbai in west to Dadri (near Ghaziabad) and Tughlakabad(in Delhi) in the North. The Eastern corridor of 1301 km would connect Ludhiana to Sonnagar via Dadri, to



facilitate transfer from one corridor to another. The ports in the Western region covering Maharashtra and Gujarat would be efficiently linked to the Northern hinterland and similarly on the Eastern side, coal would move to the power plants in the north.

After conducting the feasibility study (October 2007), Japan International Cooperation Agency (JICA) agreed to provide funds in two phases⁸⁴ only for Western Corridor. The total funding from JICA (550 billion Japanese Yen

⁸²TAC consists of variable components consisting of – Traction Power, staff and Materials – and fixed components consisting of staff, material, depreciation and cost of debt. The fixed component would be payable irrespective of volume of traffic and the variable component would be payable based on volume of traffic moved over the system.

⁸³ Excluding the section of Sonnagar- Dankuni of 538 Kms. Which is to be executed under PPP model

⁸⁴Phase I – Rewari- Vadodara- 930 km. and phase II- JNPT – Vadodra and Rewari – Dadri, (total 569 km)

equivalent to ₹ 38,722 crore⁸⁵ would be through four loan agreements. The repayment of loan would start after a moratorium period of 10 years in each agreement.

Ministry of Railways further approached (2008) the World Bank for providing funds for Eastern Corridor. After conducting series of field visits, meetings and appraisals, World Bank agreed (May 2011) to provide fund (US \$ 2725 million equivalent to ₹ 13,625 crore) only for a stretch of Ludhiana-Khurja-Kanpur-Mughalsarai (1183 kms) section of Eastern Corridor. The first loan agreement was signed in October 2011 for US\$ 975 million⁸⁶. The second loan agreement was not signed (March 2014).

3.2 Approval and Planning of the Project

Based on the feasibility report submitted by RITES in January in 2006, MoR submitted (February 2006) a note to Cabinet Committee on Economic Affairs (CCEA) seeking approval for taking up the project at an estimated cost of ₹ 21140 crore (Eastern Dedicated Freight Corridor – ₹ 9695 crore and Western Dedicated Freight Corridor - ₹11,445.60 crore) with a completion period of five years after setting up of an SPV. The Cabinet approved the proposal (February 2006) 'In Principle' to take up the execution of project on both Corridors with directions for expeditious finalization of modalities regarding resources and a SPV for project implementation.

After submission of PETS Report in January 2007, MoR approached Cabinet (February 2007) seeking approval for taking up the project at estimated cost of ₹ 28,181 crore (EDFC- ₹11,589 crore, and WDFC- ₹16,592 crore) to be completed in five years. CCEA directed MoR that issues regarding budgetary support and dividend payable might be examined separately in consultation with Ministry of Finance (MoF). On this, Department of Economic Affairs (DEA) observed (September 2007) that seeking approval of CCEA at that juncture was premature and MoR should have approached CCEA for final investment approval only after funding arrangements had been tied up and Concession Agreement between MoR and SPV finalized. MoR was, therefore, advised to finalize the funding arrangements for the DFC Projects.

While submitting a note to cabinet (October 2007), MoR stated that equity component would largely be funded through internal generation and a small component of about 10 *per cent* would be met from General Budgetary Support (GBS). Japanese assistance under Special Terms for Economic Partnership scheme (STEP) was under active consideration and Debt - Equity ratio would

⁸⁵At an exchange rate of ₹1 = 1.42 JPY

⁸⁶repayment shall commence in Nov 2018 and end in May 2033

be maintained at 2:1. The CCEA again directed (November 2007) MoR to work out the detailed cost estimates and financing plans expeditiously and finalise them through appropriate inter-ministerial consultations. It was also directed that MoR could, however, incur expenditure on preliminary and preparatory works including land acquisition, Project Management Consultancy Contracts and such allied activities from its internal sources.

Based on Feasibility Report of JICA, MoR prepared financing plan in consultation with MoF proposing the funding pattern and submitted a note to the Cabinet in February 2008 for final approval of the project at a total cost of ₹43,293 (with loan from JICA)/ ₹ 38940 (without loan from JICA) as shown below:

Eastern Corridor		Western Corridor		
Source of fund	Amount	Source of fund	Option-1 (With JBIC Funding)	Option-II
Internal Generation	7800	Internal Generation	6200	6200
Gross Budgetary Support	1250	Gross Budgetary Support	1250	1260
Debt	10,563	JBIC	16230	0
		Debt	0	11877
Total	19,613	Total	23680	19327

In February 2008, Cabinet approved the project at an estimated total cost of ₹28,181 crore⁸⁷ with completion period of five years. The Cabinet directed MoR to undertake the work on the project, irrespective of the availability of any international financing and finalise appropriate financing and implementation plans in consultation with MoF and Planning Commission and also to bring them up for its approval at an early date.

Audit observed that though the Cabinet had given ‘In Principle Approval’ in February 2006 and directed MoR to incur expenditure on preliminary and preparatory works including land acquisition, Project Management Consultancy Contracts and such allied activities from its internal sources in (November 2007), the progress achieved up to March 2014 had been very slow as was evident from the fact that contracts had been awarded up to March 2014 only to the extent of 18.45 per cent and 21.32 per cent of the estimated costs in respect of WDFC and EDFC respectively

⁸⁷ As per RITES estimate

It was further observed that while contract for civil works in WDFC were awarded to the extent of 41.69 *per cent*⁸⁸ of estimated cost, in EDFC it was only 35.43 *per cent*. The project which was planned for completion within five years of setting up of SPV, was far behind schedule.

Audit reviewed the records connected with the planning of the project and observed that MoR planning was deficient as described below:

- i. Ministry of Railways approached cabinet in February 2006 for 'In Principle Approval'. Department of Economic Affairs (DEA) had observed that MoR should have approached Cabinet for approval only after it had made credible estimates and a concrete financing plan. Approaching the Cabinet in February 2007/ October 2007 on the basis of RITES estimates and without examining the feasibility report from JICA was, therefore, premature.
- ii. MoR approached Cabinet without firming up financing plan for EDFC and as a result, the Cabinet did not approve the cost estimates as submitted by MoR. Further, the Cabinet directed to start the work within the estimated cost of ₹ 28,181 crore as worked out by RITES.

Ministry of Railways stated (May 2015) that Cabinet was approached in February 2008 with cost estimates, final alignments and funding arrangements. The reply of the MoR was not acceptable as the funding of the EDFC was consented to by World Bank only in 2011. The activity of final location survey and freezing of alignment for entire stretch of EDFC and WDFC was completed only in 2014. Further, the detailed cost estimate amounting to ₹ 81,459 crore prepared in 2013 was not submitted to Cabinet for approval.

- iii. Ministry of Railways had submitted to Cabinet that it would fund the project of ₹ 28,181 crore with equity component largely through internal generation and a small component of about 10 *per cent* from GBS. It was, however, observed that MoR infused the entire equity amounting to ₹ 27,077.74 crore from GBS.
- iv. The Cabinet (November 2007) had approved the financing plan of EDFC and WDFC as per debt equity ratio of 2:1 wherein equity was to be funded by MoR. Due to revision of estimate from ₹ 28,181 crore to ₹ 81,459 crore, the liability of IR towards equity also increased from ₹ 9,393 crore to ₹ 27,153 crore.
- v. The Administrative Ministry was required to prepare the Detailed Project Report (DPR) of a project/scheme to be included in the Plan of the Ministry/Department⁸⁹. Further, the timeframe prescribed for

⁸⁸ *In terms of KMs.*

⁸⁹ *As per Guidelines for Formulation, Appraisal and Approval of Government funded Plan schemes/projects regarding preparing of DPR as provided in Section-1 - Para No. 2 (iii)*

appraisal and approval of project/scheme costing ₹ 100 crore and above provides that the project should be submitted for approval of Cabinet/CCEA within 16 weeks from the receipt of DPR. However, though the 'In Principle' approval for the project had been accorded in February 2006 and final location survey/ DPR and freezing of alignment of EDFC and WDFC were completed in 2014, final approval of the project by the Cabinet was awaited (March 2014).

- vi. In all the Cabinet Notes (February 2006, February 2007 and February 2008) MoR had mentioned the completion period of the Project as five years, without indicating 'Zero' date for commencement. Even in the Eleventh Five Year Plan (2007-12) of Planning Commission, Government of India (Vol. III) while the scheduled completion time prescribed was five years, zero date was not fixed. This indicated that due weightage was not given by MoR to fix concrete time line for completion of the project.
- vii. Ministry of Railways in reply to the comments of DEA communicated (October 2007) to the Cabinet that the appointment of a Consultant for drawing the Concession Agreement (CA) was in advanced stage and further asserted that making its finalization a pre-condition for starting the work would only delay the project which was urgently required to be commenced. Concession Agreement was, however, finalized and signed only in February 2014. The Track Access Sharing or Revenue Sharing was left open to be decided in future. MoR took almost eight years from the date of 'In Principle approval' of the project to finalise the CA.
- Ministry of Railways stated (May 2015) that considerable consultations were involved with MoF and DFCCIL which were essential before concluding the CA. The reply of the Ministry was not tenable as the time period of eight years in finalization of CA, from the date of approval of the project was unduly long.
- viii. Project was approved by Cabinet in February 2008 with the cost estimates of ₹ 28,181 crore based on the PETS Report. After the approval, MoR directed (June 2008) DFCCIL to modify the various technical parameters concerning the DFC project. DFCCIL carried out (2008-09) detailed engineering construction survey/Final location survey (FLS) on RITES alignment to estimate the project cost. Based on this, DFCCIL submitted (December 2009) the detailed cost estimate to Railway Board for ₹42,231crore. The cost was again revised (November 2011) to ₹ 69,453 (including land) on the basis of updated scope and alignment and was submitted to MoR for approval. MoR directed DFCCIL⁹⁰ to revise the cost estimates after inclusion of certain

⁹⁰*In the presentation in January, 2012*

items⁹¹ and curtailing certain facilities. A consolidated estimate costing ₹99,928 crores (including cost of land, soft cost⁹² and cost of Sonnagar-Dankuni section) was sent to MoR (March 2014). MoR directed⁹³ DFCCIL (a) to make reduction in the DFC cost estimates by reducing the provision for contingencies from five *per cent* to three *per cent*, (b) to make provision for insurance/ taxes from seven *per cent* to one *per cent* and (c) not to make separate provision for work contract taxes in the estimate. DFCCIL after considerable resistance, reworked (December 2013) the estimated cost and submitted (December 2013) revised estimated cost at ₹ 81,459 crore. The revised cost was 189 *per cent* more as compared to the original cost of ₹ 28,181 crore which was not approved by the Cabinet (November 2014).

Audit further observed the following shortcomings in the revision of cost estimates:

- i. The cost estimate was reduced from ₹ 99,928 crore to ₹ 81,459 crore as per direction of MoR. This revision was, however, not due to reduction in the scope of core activities of the project but was due to reduction in variable components such as contingencies, insurance and taxes.
- ii. Although RITES finalized the PETS report including abstract cost estimates within a period of 18 months, MoR took almost six years to finalize the detailed project report and cost estimates (February 2008 to March 2014) from the date of approval of the project.
- iii. The Administrative Ministry, upon getting an indication that the cost estimate were likely to exceed the specified limit, was required⁹⁴ to move immediately, to obtain necessary approval. Further, there was a provision⁹⁵ that 'in every case where the project cost overrun was more than 20 *per cent* and was accompanied by time overrun of over 10 *per cent* or such other time, the cost overrun would be brought up for approval of the CCEA only after responsibility was fixed for such cost/time overrun. However, despite the cost overrun by 189 *per cent* and time overrun of three years⁹⁶, MoR had not obtained the approval of the Cabinet till March 2014.
- iv. The World Bank loan was USD loan and the interest and repayment of Principal amount was to be made by DFCCIL in Rupee equivalent to USD at the prevailing rate. Thus World Bank Loan was carrying the

⁹¹Such as Sone bridge, GSM –R and ground improvement measures.

⁹² Soft costs comprising of Interest during construction, contingencies, insurance & taxes and cost escalation

⁹³On the basis of recommendations of High level Committee on DFC cost optimization,

⁹⁴ Paragraph 25 regarding "Mandatory Review of Cost Estimate" of 'Guidelines for formulation, Appraisal and Approval of Government Funded Plan Scheme/Project'

⁹⁵ Paragraph 26 of 'Guidelines for formulation, Appraisal and Approval of Government Funded Plan Scheme/Project'

⁹⁶ From February 2011 to March 2014

risk of foreign exchange variation. Further, the applicable interest rate for World Bank loan was LIBOR⁹⁷ plus variable spread as fixed by World Bank from time to time. Thus, the interest rate was also dependent on variation in the LIBOR rate of interest and the variable spread which is revised by World Bank from time to time. Keeping in view these factors, DFCCIL (November, 2013) told MoR that in order to safeguard the DFCCIL from uncertainties prevailing in the Foreign Exchange Market, the hedging⁹⁸ of the World Bank loan was required. For this, it requested Railway Board to include the additional cost of ₹ 2215 crore in the revised cost estimate. However, Railway Board neither included this cost in the revised estimate nor gave any reasons for not including the same to DFCCIL despite repeated correspondence.

Ministry of Railways stated (May 2015) that there were changes in the technical specifications and the scope of the DFC project that resulted in increase of ₹ 20,810 crore. Similarly due to changes in the alignment, land cost increased by ₹ 5,087 crore. RITES estimate also did not include soft costs amounting to ₹ 19,384 crore. The escalation contributed only ₹ 7992 crore in the increase in cost.

The reply of the Ministry of Railways was not acceptable as the increase in land cost by ₹ 4,442 crore was attributable to escalation. Thus, total increase in the project cost due to escalation would be ₹ 12,434 crore

3.2.1 Formation of New Organisation Structure

The Committee on Infrastructure had recommended (February 2006) the mechanism of SPV, owned jointly by the IR and the users of bulk freight services⁹⁹ should include the planning, construction and maintenance of infrastructure. The coming together of the Railways and mainly PSUs, with some topping up by the Central Government, would ensure an adequate equity base, which could be leveraged for market borrowings for raising enough capital for investment in the DFCs. In this connection, MoR proposed (June 2006) a note for Cabinet approval for formation of SPV specifying Authorised Capital as ₹11,000 crore and Subscribed and Paid up Capital as ₹ 50 crore that was to be increased during course of operation of the SPV based on requirements and Debt Equity Ratio as 2:1.

The Cabinet referred (July 2006) the matter regarding formation of SPV to a Group of Ministers (GOM)¹⁰⁰ who raised various issues. Department of

⁹⁷ London Interbank offered rate

⁹⁸ A foreign exchange hedge is a method used by companies to eliminate or hedge their foreign exchange risk resulting from transactions in foreign currencies.

⁹⁹ Port operators, Shipping companies, Oil companies, Coal, Iron ore and Steel companies as well as Power companies, largely in the public sector

¹⁰⁰ consisting of Minister of Railways, Finance Minister and Deputy Chairman, Planning Commission

Expenditure opined that at the investment approval stage, it would be appropriate to restrict the equity of IR in the SPV between 51-60 *per cent*. The balance equity may be offered to Central Public Sector Enterprises (CPSEs)¹⁰¹. The financial structure, sources of finance, cash flows and project viability were yet to be firmed up and an investment decision could be taken only after a detailed business plan and DPRs had been prepared and considered by EBR/CCEA. The DEA also observed (July 2006) that Railway should commit much lesser amount in the equity of SPV restricting it to 51 *per cent* or less. Further, from the proposed structure, it was evident that Railways were proposing creation of SPV as a clone of the Railway. It would be difficult for it to raise resources from the market or from multilateral agencies. Department of Public Enterprises opined that in the absence of a business plan, financial structure, equity investment by Railways etc., the proposal to form a SPV was premature. The Planning Commission also opined that equity should be shared equally between Railways and user PSUs.

Ministry of Railways clarified that since all major trunk routes of IR were supersaturated, it was important to have DFCs in position by 2010-11. Further, to maintain 8 to 8.5 *per cent* growth rate of GDP, IR would have to move more than 1100 million tons of freight traffic by 2011-12. It was also stated that according to a rough estimate, delay in construction of DFC would result in the loss of thousands of crores of rupees in terms of cost overrun and freight earnings forgone. Hence, it was not prudent for other PSUs (bulk users of freight services) to enter into business activities that were not within their core competence. In view of nature of SPV as rail infrastructure creator/provider and the need to make the SPV functional urgently, there was no option but to set up the SPV with 100 *per cent* equity by MoR. Despite apprehensions by various departments, MoR recommended to set up an SPV with 100 *per cent* equity by IR. Cabinet approved (August 2006) the formation of DFCCIL which was incorporated in October 2006 under the Administrative Control of MoR with Authorized Capital of ₹ 4000 crore and paid up Capital of ₹ 2 crore which had been increased and stood at ₹ 8000 crore and ₹ 2707.74 crore respectively as at end of March 2014.

It was thus evident that recommendations of task Force to form an SPV owned jointly by the IR and the users of bulk freight services was not adhered to. An SPV with 100 *per cent* equity had been formed by MOR primarily to avoid any time or cost overrun and to get the DFCs positioned by 2010-11. However, the purpose of formation of SPV with 100 *per cent* equity had been defeated as the project remained incomplete till March 2014.

¹⁰¹ *Coal and power companies on the Eastern corridor and oil companies on the western corridors*

3.2.2 Appointment of Board of Directors

As per Cabinet approval (August 2006), the SPV was required to be managed by Board of Directors (BoD) which was to include a full time Managing Director (MD). The Chairman Railway Board (CRB) may be the Ex officio Chairman of BoD. Further, the first time MD and four Functional Directors (FDs) were to be appointed through a Search and Selection Committee instead of by Public Enterprise Selection Board. MoR was to seek approval of Appointments Committee of Cabinet (ACC) separately for deviation from Public Enterprises Selection Board (PESB) guidelines. However, no MD had been appointed till September 2007 and FDs till October 2007. This delay of one year in appointing MD/FDs was not justifiable since execution of project was not possible without Top Management.

Ministry of Railways stated that the approval of the ACC was obtained only in February 2007. This contention of MoR was not acceptable as it took eight months after the approval of ACC to make the appointments.

Further examination indicated that no MD had been appointed for two years and the FDs were not in full strength for a period of six years out of 8 years of existence of DFCCIL. Besides, CRB who was nominated as Part Time Chairman of DFCCIL held charge of it only from February 2009 (28 months after its creation).

The DFCCIL proposed (November 2007) to MoR that its Board should consist of 11 Directors¹⁰². MoR, however, appointed 12 Directors¹⁰³ besides CRB as Part Time Chairman. It was obvious that even the composition of Board of Directors had not been decided till May 2010 involving delay of three years and seven months indicating lack of seriousness on the part of MoR in providing to DFCCIL the required support of Top Management for executing the mammoth project on hand.

Ministry of Railways stated (May 2015) that initial activities of DFCCIL were limited and project preparation studies, such as Final Location Survey were progressing. The process for appointment of Independent Directors was initiated in 2009. The fulfillment of procedural formalities took considerable time. The ACC approval was obtained in May 2010 only.

The reply of the MOR was not acceptable as the process for appointment of Independent Directors was initiated only in 2009. For achieving the target date of completion of the project by the Company, it was an essential requirement to have the top management in full strength.

¹⁰²One Chairman, one Managing Directors, four Functional Directors, two Part Time Directors and three Independent Directors.

¹⁰³one MD, four Functional Directors, one nominee from MoR, one nominee from Planning Commission, one nominee from Financial Institution and four independent non-official Directors.

3.3 Monitoring of Progress of Project

The Cabinet directed (August 2006) that an Empowered Committee under the Chairmanship of Cabinet Secretary¹⁰⁴ would be constituted to monitor the time bound implementation of the Project. However, no such committee was formed by MoR to monitor the Project.

Ministry of Railways stated (May 2015) that a high level Monitoring Committee under the Chairmanship of Principal Secretary to Hon'ble Prime Minister¹⁰⁵ was set up in June 2009 to monitor the progress of DFC project. Thereafter, a Delivery Monitoring unit was set up in July 2009 in the Prime Minister's office in July 2009 to review DFC project. Since 2010-11, targets of DFC were monitored by Planning Commission. However, the fact remained that despite monitoring mechanism in place, there were delays in execution of the project as indicated below:

- i. In Eastern Corridor, there was delay ranging between two months (Khurja-Kanpur Section) and 36 months (Ludhiana-Khurja Dadri Section) in selection of Civil Contractor. In respect of System Contract, such delay ranged between 11 months (Durgwati-Karwandia Section) and 37 months (Ludhiana-Khurja-Dadri Section). There was delay ranging between 16 months (Kanpur-Mughalsarai) and 30 months (Sonnagar-Mughalsari Section) in commencing Civil Works. However, in respect of execution of System Works, the delay ranged between 12 months (Sonnagar-Mughalsarai Section) and 25 months (Ludhiana-Khurja Dadri Section). Similarly in Western corridor there was delay in selection of Civil Contractor ranging between 13 months and 22 months. In respect of Selection of Systems contractor, delay ranged between 21 months and 23 months.
- ii. DFCCIL submitted to MoR (July 2014) that the target for year 2013-14 could not be achieved due to procedural formalities related to World Bank funding (Eastern Corridor) and lack of participation from Japanese Contractors (Western Corridor). They requested MoR to pursue with the Government of Japan to relax the STEP component which mandated lead contractors from Japan. It was also submitted that if this issue was not resolved, overall project deadlines would be further delayed. Another constraint communicated by DFCCIL was lack of Key Position Personnel and requested for the filling of key position including MD and other Directors with regular appointees.

¹⁰⁴Consisting of CRB, Financial Commissioner of Railway Board, Finance Secretary, Secretaries of Planning Commission, Ministries of Law and Environment and Forest Departments, Road Transport, Highways & Shipping and also MD of DFCCIL.

¹⁰⁵Comprising of Chairman, Railway Board, Finance Secretary, foreign Secretary and Secretary/DIPP

Ministry of Railways stated that the issues raised by DFCCIL were taken up with World Bank, JICA and DEA. The reply was not acceptable as the final outcome was not known.

3.4 Conclusion

The Project, which was approved in February 2006 and planned for completion within five years at an estimated initial cost of ₹ 28,181 crore by March 2011, remained incomplete with insignificant physical progress. The MoR went ahead seeking final approval of the project (which was approved in February 2008 at an earlier estimated cost) without completing crucial formalities such as freezing of alignment, drawal of Concession Agreement, firming up funding arrangement and preparation of detailed cost estimate. Even the timelines for completion of the project were not firmed up. The delay in completion of project was mainly due to lack of proper planning and implementation. As a result, there was time overrun of three years and cost escalation of ₹ 7992 crore in construction cost and ₹ 4442 crore in land cost till March 2014 and the long term requirements of efficient and economical movement of freight traffic were yet to be achieved.

3.5 Recommendations

Ministry of Railways /DFCCIL needs to:

- I. Prepare realistic and objective cost assessment duly incorporating all the provisions for contingencies, insurance, taxes, interest during construction and other related components.***
- II. Obtain the approval of cabinet for revised cost and take effective steps to execute the balance works of the project in a time bound manner within the revised approved cost.***

Chapter 4: Modernisation of Signaling and Telecommunication System by Indian Railway Project Management Unit

4.1 Introduction

Ghaziabad (GZB) – Kanpur (CNB) rail route of North Central Railway (NCR) is one of the heavily congested routes of Indian Railways (IR). In August 1995, one of the worst rail accidents in the history of the IR occurred at Firozabad on Tundla - Shikohabad section, when 310 lives were lost. This accident was a rear collision of two Express trains¹⁰⁶ on account of wrong manual operation of Signaling and Telecommunication (S&T) system¹⁰⁷. After this accident, with a view to increase reliability of S&T system in providing safe running of trains and also to increase the line capacity of available tracks, Railway Board decided (1995) to modernise S&T system on GZB- CNB route. The existing S&T assets on the route were very old (ranging from 35 to 60 years) and were due for replacement on priority basis. S&T system modernisation was to reduce probability of accidents through reduction in the scope of human error and to achieve efficiency and safety in train operations through centralised traffic control.

In view of the urgency involved in modernisation of S&T system on the route, Ministry of Railways (MoR) approached (1995) Ministry of Finance (MoF) to arrange a loan from a German Government owned Development Bank¹⁰⁸. MoF entered into (August 1997) a ‘Loan Agreement’ with the KfW for DM 185,000,000¹⁰⁹ with direct disbursement method¹¹⁰. The loan amount was to be disbursed by KfW upto 31 December 2001 as per which they had the right to refuse to disburse¹¹¹. Later, MoR (the executing Authority) also entered into (December 2000) a ‘Separate Agreement’ with KfW defining the terms and conditions for the execution of works.

Ministry of Railways decided (February 2002) to execute 11 major works as mentioned in *Appendix I* for S&T modernisation of route by utilising KfW loan. These 11 works included seven works [(a) to (g)] which had already been sanctioned by MoR at a total cost Rs 140.50 crore during 1995-96 to 2001-02

¹⁰⁶ Kalindi Express and Purushottam Express.

¹⁰⁷ Signalman cleared Purushottam Express to run on a track on which Kalindi Express had stopped outside Firozabad Railway station a cow getting hit by the engine.

¹⁰⁸ Kreditanstalt Fur Wiederaufbau (KfW) at Frankfurt.

¹⁰⁹ On an interest at the rate of 0.75 per cent per annum and commitment charges at the rate of 0.25 per cent per annum on undrawn balance of loan amount out of that got withheld by KfW for disbursement during the year.

¹¹⁰ The invoices for work done were to be raised by the contractor, measured by the Railway, checked and signed by the consultant and then forwarded through MoR and MoF to KfW for direct payment to the contractor. The release of fund was linked with the progress of work.

¹¹¹ in terms of Para 2.2 of ‘Loan Agreements’

and were ongoing. Expenditure to the extent of ₹30.56 crore had been incurred (March 2003) on these seven works¹¹² through General Budgetary Support (GBS)¹¹³. The remaining four works [(h) to (k)] were newly sanctioned works included in Works Programme 2002-03.

Ministry of Railways engaged¹¹⁴ (December 2002) a Consultancy Company¹¹⁵ (contract value- Euro 3.91 million) for technical advice to Project Authorities and supervision of 11 works for S&T modernisation of the route. Further, MoR was also required¹¹⁶ to form a dedicated Project Management Unit for centralized execution of KfW funded works. MoR accordingly set up (May 2003) Indian Railway Project Management Unit (IRPMU) in New Delhi.

For the execution of 11 major works funded by KfW, a contract was awarded (September 2005) by GM, NCR (contract value in Indian currency - ₹440.45 crore)¹¹⁷ to M/s Ansaldo Signal Consortium (M/s ASC). The scope of contract work included various type of works¹¹⁸. The original scheduled date of completion of this major contract was fixed as July 2009. However, the Project work progressed very slowly and could be completed to the extent of 35 *per cent* only by July 2009. Thereafter, extensions were granted on five occasions upto December 2014. Till then, the physical progress of the Project work was 69 *per cent* only and out of 11 works included in the scope of work awarded through this contract, only two works¹¹⁹ were completed. KfW continued disbursement of loan till December 2014 on requests from MoR.

However, considering the problems in Project execution, KfW terminated 'Loan'¹²⁰ in February 2015 on account of slow progress. MoR, therefore, decided to get the remaining works completed by December 2015 through M/s ASC utilising Gross Budgetary Support (GBS).

¹¹² *by the end of March 2003*

¹¹³ *For the creation of Railway assets, MoR takes support from MoF in the shape of loan for which provision is made in General Budget every year. Dividend at certain prescribed rate is payable by MoR on such loan.*

¹¹⁴ *Para 7.1 (b) of the 'Loan Agreement' and Sub paragraph 2 of paragraph 4 of 'Separate Agreement'.*

¹¹⁵ *Deutsche Esisenbahn – Consulting (DE- Consult), Germany (main consultant) and Rail India Technical and Economic Services (RITES), sub-contractor to main consultant.*

¹¹⁶ *Para 2.3 (b) of the 'Loan Agreement' and Sub paragraph 1.1 (a) of paragraph 4 of 'Separate Agreement'.*

¹¹⁷ *At conversion rate applicable at that time*

¹¹⁸ *Electronic Inter-locking (EI) at way stations, Automatic Block Signalling (ABS) for sections. Laying of Optical Fibre Cable (OFC), Centralised Traffic Control (CTC), telecommunication works (Exchanges, Towers, Communication shelters, Cabling works and S&T works in big Yards.*

¹¹⁹ (i) *Replacement of signalling gears by solid state interlocking (5 stations) on Ghaziabad-Kanpur and (ii) Track circuiting with automatic block signaling in golden quadrilateral/Rajdhani and Shatabdi route- Aligarh-Kanpur route*

¹²⁰ *Railway Board's letter No. 2012/Sig/E/2/KfW (disbursement) dated 09.02.2015.*

4.2 Organisation Structure

Indian Railway Project Management Unit (IRPMU) is headed by Chief Administrative Officer (CAO) who works under the administrative control of General Manager (GM), North Central Railway (NCR), Allahabad. At Railway Board level, the matters related to IRPMU are dealt with by S&T Directorate headed by Member (Electrical) who is assisted by Advisors (Signal) and Executive Directors (Signal Project). Issues to be dealt at MoR and duties assigned to GM, NCR and CAO, IRPMU are exhibited in *Appendix II*.

4.3 Audit Objectives

Audit reviewed (2014-15) the records connected with the planning and execution of KfW funded S&T modernisation works on GZB-CNB route with a view to ascertain:

- I. Whether the planning for execution of works on urgent basis for S&T modernisation of GZB-CNB route was efficient and effective ;*
- II. Whether the execution of Project work through the contract awarded was efficient and effective;*
- III. Whether Fund Management for execution of externally funded works was efficient.*

4.4 Audit Findings

The major Audit findings noticed during the review of records at MoR, Ministry of Finance, NCR, IRPMU, New Delhi and site offices of various Engineers in the field were as under:

4.4.1 Planning Process

Ministry of Railways took up this safety project on urgent basis and to avoid hindrances in execution on account of scarcity of GBS, MoR arranged loan from KfW, Germany. The Bank had a right to refuse disbursement after December 2001. However, as brought out below, there were delays on various accounts at initial planning stage of this important sensitive safety project which delayed formation of IRPMU which was necessary to take up the initiatives for execution of Project work such as floating & finalisation of tenders and award of contracts-

- The 'Loan Agreement' between MoF and KfW was signed in August 1997. However, the 'Separate Agreement' between KfW and MoR

(executing agency), required to be executed immediately thereafter, was executed only in December 2000¹²¹.

- For the execution of major S&T modernisation works, although a Project Management Unit (PMU) was to be formed immediately after the execution of 'Separate Agreement', it could be formed only in May 2003 (IRPMU, New Delhi) as:
 - (i) The estimates of seven ongoing S&T modernisation works decided for inclusion in the scope of KfW funded Project work required revision / modification to KfW loan structure. Besides, four newly sanctioned works required their inclusion in Indian Railways Works Programme.
 - (ii) Although after the execution of 'Separate Agreement' between MoR and KfW in December 2000 the formation of IRPMU was required to be done on priority basis, MoR involved themselves in awarding a consultancy contract. The consultancy contract could, however, be awarded as late as in February 2003.
- KfW loan remained undisbursed till 31 December 2001¹²². The non-disbursement of loan was mainly on account of delay on the part of MoR in entering into 'Separate Agreement' in December 2000 and formation of IRPMU as late as in May 2003 only. This resulted in unnecessary avoidable payment of commitment charges of ₹ 8.26 crore till the formation of IRPMU.
- As per 'Separate Agreement', the Tender procedure should have commenced in August 2001 and tender finalized by March 2002. However, the Global Tender (GT) was floated in December 2003 and finalised in September 2005 at a cost of ₹440.45 crore in favour of M/s ASC registering delays of 28 months and 21 months respectively¹²³. Since the work for this important time bound safety project was required to be executed on turnkey basis and the execution involved technicalities of various nature, the tender was not finalized expeditiously. Delays in the formation of IRPMU and also in award of contract compelled MoR to revise the completion period of contract to July 2009.
- MoR was required to make with the assistance of Consultant the functional planning in regard to supervision of execution, including evaluation of the offers received against the tenders floated for the execution of work. A global tender for the Project work was floated in

¹²¹ in view of a lengthy correspondence/ divergence of views between Minister of Railways (MR) and Railway Board in regard to necessity / usefulness of an exclusive Project for S&T modernisation besides modification in the scope of the project. MR's approval was in June 2001

¹²² as per 'Loan Agreement' KfW was contractually bound to disburse the loan by this date only

¹²³ Floating of a GT was delayed due to belated formation of IRPMU and the finalization of GT was delayed as Tender Committee met nine times between August 2004 and December 2004 and discussed on the Financial bid held seven times between March 2005 and May 2005. Railway Board also evaluated the tender finalization process seven times.

December 2003 against which offers were received (in two packets system- financial bid and technical bid) from four tenderers which were opened in June 2004. The Consultant evaluated the offers received. Audit observed that:

- (i). The contractor to whom the contract was awarded (M/s ASC) after lengthy deliberations had been found technically unsuitable by the Consultant initially, as brought out in *Appendix III*. The offer of M/s ASC was considered by TC for award of contract and approval of the higher Authorities.
- (ii). During the process of evaluation of offers of the tenderers, the scores awarded by Consultant were ignored. The TC made M/s ASC, the initially unqualified contractor, the lowest bidder (L1). The position has been exhibited in *Appendix IV*.

When the matter was brought to the notice of Railway Board (February 2015), they stated (June 2015) that:

- I. 'Separate Agreement' is prepared after detailed design study and contains detailed scope of project and planning for implementation. The consensus and clearance of Planning, Traffic and Accounts Directorates was given in 2001 only.
- II. Assignment of consultant was avoidable as was mandated in 'Separate Agreement' and was primary requirement of KfW Bank. The late formation of IRPMU had no impact on the progress of work as consultancy contract was awarded in February 2003 and IRPMU, in May 2003.
- III. The views of consultant after tender evaluation were recommendatory in nature subjected to scrutiny of the Tender Committee and Tender Accepting Authorities. The technical suitability of M/s ASC was evaluated by a HAG level committee of North Central Railway.

Their contention was not acceptable as:

- I. The delay in entering into 'Separate Agreement' was in view of lengthy correspondence and divergence of views between MoR and MR. Signal Directorate had identified the S&T component of the Project in 1997. The clearance of Planning, Traffic and Accounts Directorates for this urgently needed safety project should have been arranged expeditiously. The fact that as per 'Loan Agreement' KfW had a right to refuse disbursement of loan after December 2001 was not kept under consideration.
- II. Had the consultancy contract been awarded and IRPMU formed early, the contract could have been awarded earlier making the execution of work possible besides avoiding payment of commitment charges.

- III. Since the technical unsuitability of the contractor was already established, consideration of technical suitability of contractor by HAG level committee was inappropriate. Opening of the Financial Bid of this contractor was also not regular as the Consultant had found it technically unsuitable.

4.4.2 Execution of Project

4.4.2.1 Progress of Work

As per the contract awarded to M/s ASC the project work was to be completed by July 2009. However, it was extended five times, latest up to 31 December 2014. Even by this date, the progress of work was 69 per cent only. The overall status of work at the end of March 2015 was as under:

- I. Electronic inter-locking (EI)¹²⁴ had been completed at 35 stations out of total 38 stations,
- II. Automatic Block Signalling (ABS) work had been completed on 43 stations out of 47 stations. In kilometre terms, work for 57 kms was remaining out of 410 kms.
- III. Laying of Optical Fibre Cable (OFC) had been completed for 866 kms out of 908 kms.
- IV. The work for Centralised Traffic Control (CTC) was severely lagging behind as the physical progress of CTC work was 14.63 per cent only and that too in the shape of construction of CTC building and installation of equipment. The work was at development stage only at seven stations (60 kms out of total 410 Kms).
- V. The status for completion of telecommunication works was – Exchanges- 33 out of 55, Towers-42 out of 61, Communication shelters-83 out of 144, OFC- 866 out of 908, Quad cable-382 out of 454 and GSM-R- 180 out of 755.
- VI. Electronic inter-locking and CTC works had been completed at only three major Yards out of total nine major yards.

As a result of slow progress, KfW had stopped funding¹²⁵ of the Project after December 2014 and MoR had decided to complete the balance work through GBS. The revised targets set by MoR for completing the remaining works was December 2015, except for remaining six major yards where the expected date of completion was between May 2015 and November 2016 for five major

¹²⁴ In Modern interlocking, the wired networks of relays are replaced by software logic running on special-purpose control hardware. The logic is implemented by software rather than hard-wired circuitry which greatly facilitates the ability to make modifications when needed by reprogramming rather than rewiring.

¹²⁵ As per CPM, IRPMU's MCDO issued to AM/Signal at Railway Board for the month of March 2015

yards and 2017 for Tundla Yard. With the expiry of the consultancy contract on 31 December 2014, the balance works were supervised by Engineers of IR.

4.4.2.2 Delay in Execution of Work

Audit observed that since commencement the progress of this highly needed safety project never matched with the urgency and importance of the project in view of which the project was funded through foreign loan. It was evident from the following chronological developments after the award of contract:

- I. By July 2009, the originally fixed target date for completion of contract the physical progress of the Project was 35 per cent only¹²⁶ after incurring expenditure of ₹ 142.27 crore. The contractor requested to extend the completion period up to 31 October 2011 on certain technical grounds brought out in *Appendix V*. IRPMU anticipated (July 2009) that around three year period would be required to complete the remaining work, including CTC works. IRPMU also observed that the work had been delayed on account of certain decisions of Railway and execution of balance work would need to be expedited for completing the work by 31 October 2011. However, Member Electrical (ML) had already directed (May 2009) to complete the work by 31 December 2009. IRPMU felt that the target was unrealistic as they expected that by that date the progress would be around 42 per cent. The date for completion of work was extended up to 31 December 2009 in October 2009, as per instructions of the ML.
- II. The contractor requested (February 2010) for further extension of completion period by 18 months. IRPMU observed in May 2010 that the progress of work after July 2009 was negligible on account of non-approval of various plans for want of finalized technical schemes. The contractor did not accept Railway Board's instructions (August 2009) for adoption of dual detection scheme (DDS) on remaining stations (excluding 12 stations where DDS had already been provided) and expressed their intention to execute the work as per scope of the contract. Due to ambiguity in contract, there were also a number of technical and contractual issues requiring Railway Board's decisions.

IRPMU, after getting a commitment from the contractor on commissioning programme and resource deployment to complete the work by the extended completion period, granted extension (June 2010)

¹²⁶ EI work for 11 stations out of 38 stations and 14 block sections out of 33 block sections was only completed and that too with technical issues emerged after the commissioning. CTC work, EPBX network work and STM work was not commenced. The progress of other works was tower foundation (88 per cent), tower erection (51 per cent), CER foundation (23 per cent), CER erection (22 per cent) and OFC laying (62 per cent).

up to 30 November 2011. The currency of KfW loan expiring on 31 December 2009 was also got extended for further two years.

III. There were a number of technical and contractual issues that were pending for decisions of MoR and RDSO when the completion period was last extended. These had adversely affected the progress of Project works that lagged behind considerably by extended target date of completion¹²⁷. During the extended period, the contractor erected only three towers and cast only one foundation. The CTC work was at preliminary stage only. Even the submission of the report of Independent Safety Assessor (ISA) for CTC operation was awaited. IRPMU observed that the contractor failed to achieve the milestones submitted by them primarily due to inadequate resource deployment. Despite an effective pursuance¹²⁸, the contractor did not accelerate the pace of work. KfW expressed (May 2011) their concern about slow progress of the work which had resulted in slow utilization of loan.

IV. Audit observed that IRPMU had repeatedly asked the contractor to submit their request for further extension of completion period. Besides slow progress of the contractor there were also certain reasons due to which extension in completion period was admissible under the provisions of clause No. 40 of the contract which allowed contractor additional time to provide additional facilities.¹²⁹

The contractor requested (October 2011) to extend the target date of completion up to 30 June 2012. IRPMU held that the non-completion of the work was on account of deficient performance of the contractor besides some other issues¹³⁰. The progress during the existing extended completion period mainly related to design work.

¹²⁷ *EI- at 22 stations out of 38 and 28 block sections out of 33. EI at wayside stations due to laying of third line (total 11 stations) and block sections (total 14 block sections) had not been started. EI had also not been started on nine large sections. Only 13 child exchanges out of total 54, one mother Exchange had been supplied. The supply of SDH equipments and of power supply equipments for Exchanges and SDH had been completed. Though tower foundations had been casted for 61 towers, only 34 towers had been erected. Construction of CTC building had only been started (October 2011).*

¹²⁸ *MoR and IRPMU had several meetings with contractor and issued several letters to accelerate the progress of work during the extended completion period.*

¹²⁹ *On Aligarh- Ghaziabad and Panki -BPU sections, the work for laying third line was in full swing necessitating creation of additional facilities within the scope of existing contract. Besides, other works related to yard remodelling at HRS, ETW, SKB, DER etc also required provision of additional facilities. These required additional planning, procurement of material and execution of work etc. The contract clause (No.40) allows contractor to request for additional time for providing additional facilities.*

¹³⁰ *(a) poor progress of sub-contractor on ETW-PNK section, (b) inadequate deployment of resources, (c) delay in supply of material specially telecom material, (d) inaction on fixed network work, (e) no progress/solution on SCADA, (f) bankruptcy of sub-contractor for GSM-R, (g) non-availability of site due to water logging in PNK-ETW section, (h) delayed decisions of MoR/RDSO (June 2011 to December 2011) on GSM-R solution, FAT on GSM-R equipment, cross acceptance by RDSO and supply of MSC/IN, (i) additional scope of work of modification of automatic signalling, (j) the progress of engineering/electrical works and (k) availability of CRS sanction, green notices/traffic blocks etc.*

- V. IRPMU further extended the completion period (January 2012) up to 31 December 2012 with Liquidated Damages (LD)¹³¹. This extension was granted after obtaining commitment from the contractor on commissioning programme and resource deployment for completing the work.
- VI. During the extended completion period, the contractor could not meet their commitment¹³². The contractor requested (June 2012) to extend the completion period up to December 2014. IRPMU observed that besides certain reasons¹³³, the progress of work lagged behind primarily due to inadequate resource deployment by the contractor. IRPMU also evaluated the reasons quoted by contractor while requesting for another extension in completion period and found them illogical. IRPMU contradicted contractor's observations as under:
- i. Non-construction of shelters and non-deployment of sufficient man power on ALJN-GZB third line might be reasons for the delay in respect of that portion only and not for the whole route.
 - ii. Although the approval of three phase Point machines was delayed by IRPMU due to change in vendor, the same had no connection with the delay in completing work for nine stations by the contractor.
 - iii. The contractor offered (in 2012) CTC material for inspection of the RDSO. The validation of RDSO was awaited as contractor had not replied to various observations made by RDSO.
 - iv. The delay in execution of GSM-R was mainly on account of slow progress of tower and shelter erection by contractor.

When IRPMU asked the contractor (December 2012) to submit target dates for completing the work of five major yards including their remodeling, the contractor refused to execute additional works and requested for its exclusion from the scope of the contract. IRPMU had no option but to extend again (January 2013) the completion period again up to 31 December 2013 with levy of Liquidated Damages¹³⁴.

¹³¹ This is a penalty which is imposed on the contractor when the delay in completing a work is due to the lapses of the contractor. Amount at a prescribed rate is deducted from the payment due for payment to contractor for work done during extended period.

¹³² The contractor commissioned signalling work at six wayside stations and five block sections only in CNB- ALJN section. Signalling work at seven large stations was not commissioned and no wayside station (out of 11) and block section (out of 14) related to ALJN-GZB third line was commissioned. Out of 54 child exchanges, 42 were to be installed. Three towers and 14 communication shelters were erected and 24 towers and 61 communication shelters were in balance.

¹³³ Inadequate resource deployment, poor progress of sub-contractor, inordinate time taken to initiate the work of ALJN-GZB third line and inaction on fixed network portion as well as and CTC.

- VII. Although the progress of work during the extended period was insignificant¹³⁵, the contractor requested (September 2013) for another extension in completion period up to June 2015 and submitted the milestones/ targets for completing the work, except Tundla Yard. The KfW loan was available only up to December 2014. Railway Board directed the IRPMU (October 2013) to complete all works by June 2014. The Chief Project Manager (CPM)/IRPMU observed (January 2014) that there was no improvement in the performance of the contractor and it would be a fit case to terminate the contract and *en cash* the Bank Guarantee. By that time, the HAG committee¹³⁶ had recommended that work of major yards should be got done through this contractor and thereafter, all stations would be linked with CTC. The CPM observed that with the existing pace, the contractor would be able to complete the work by December 2014. Accordingly, the completion period was extended up to December 2014 with LD, with stipulations that revised commitment by contractor for completion of all major yards including their re-modeling would be obtained from the contractor. It was thus evident that:
- i. Due to slow execution of S&T modernisation works, the date for completion of KfW funded contract had to be revised five times, last up to December 2014. Even the progress of work after this date was 69 *per cent* only. The slow progress of works had led to increase in cost of the Project by ₹ 291.24 crore¹³⁷.
 - ii. During 2003-14 (11 years), MoR had paid commitment charges to the extent of ₹ 28.63 crore due to non-disbursement of KfW loan. Out of this, a sum of ₹24.46 crore related to execution period after floating of tender (December 2003). Had the concerned Railway Authorities avoided the inordinate delay in award of contract¹³⁸, all the technical and contractual decisions taken prior to award of contract, technical and financial issues raised during execution of work could have been settled expeditiously and the pace of execution of Project work accelerated. By effective co-ordination with contractor, payment of a part of this amount could have been avoided and balance work (31 *per cent*) executed with KfW loan.

¹³⁵ Commissioning of two way side stations and three block sections to be done with third line on ALZN-GZB Section and of one large station, nine child exchanges, erection of five towers only. The CTC work was badly lagging even the Train graph functionality had not been developed by the contractor due to which no trial was possible.

¹³⁶ Higher Administrative Grade

¹³⁷ Difference between original cost (₹445.57crore) and last anticipated cost as on 31 March 2015 (₹736.81crore).

¹³⁸ Six months time has been prescribed to finalise a tender after its opening.

- iii. Till July 2009 (the original date of completion), the contractor had replaced only eleven signalling equipments (23 per cent). As of March 2014, 10 signalling equipments (21 per cent), installed between 1932 and 1980, whose replacement was due between 1957 and 2005 respectively had not been replaced. Delayed replacement / non-replacement of overdue assets had left the route vulnerable to accidents.

4.4.2.3 Technical Constraints and Solution

Although the technical advisor of Indian Railways (RDSO), an independent unit formed specifically for execution of Project work (IRPMU), Independent Safety Advisor (ISA), the contractor (M/s ASC) as well as a Consultant (M/s. De-consult and M/s RITES) were involved to ensure/ approve the appropriateness/quality of technology/ product, none of them proved to be adequately successful in deciding the technical issues effectively and efficiently. The Consultant, who was the technical expert appointed specifically on 'Single tender' and nomination basis, also did not provide suitable advice for ensuring appropriate technology/ quality of the products.

A detailed review in Audit connected with the execution of KfW funded works revealed that the main reasons for the delay in completion of S&T Project included following issues-

A. Electronic Interlocking (EI) of Microlok II make

The LOA issued (September 2005) to M/s ASC with the condition that the EI would be with hot standby¹³⁹ configuration. However, prior to execution of the formal agreement, provision of hot standby configuration would require certification of Independent Safety Advisor (M/s TUV). It was observed that NCR Administration, entered into the agreement (February 2006) with the contractor without waiting for the ISA certificate. In March 2006, RDSO permitted the provision of hot standby configuration on the basis of cross acceptance¹⁴⁰. The ISA provided their certificate in August 2006 only. However, IRPMU faced operational difficulties with the hot standby configuration provided. In view of this, RDSO withdrew (January 2009) their permission which was granted in March 2006 on cross acceptance basis and permitted IRPMU to use as interim measure the warm standby configuration.

RDSO resorted to the acceptance for hot standby configuration for way side stations in April 2011 and for yards in September 2011. Between January 2009

¹³⁹Hot standby is a system where alternate system always remains ready, without any lapse of time, to take up the operation in case of any failure in main system. Contrary to this Warm system remains in proactive stage and takes some time to be in active state to take up the operation in case of failure in the primary system.

¹⁴⁰ Cross acceptance is acceptance on the basis of successful implementation in another country.

and March 2011, the contractor had provided EI at 14 locations with warm stand by configuration which had to be retrofitted to hot standby configuration. As of July 2015, the works relating to EI in the remaining two wayside stations and at five major yards were pending. This indicated the lack of adequate technical skills of RDSO in EI works as they were liable to ensure provision of hot standby configuration smoothly.

RDSO stated (August 2015) that their approval of March 2006 to EI of Microlock II make on cross acceptance basis, was for its general use on IR. In respect of KfW funded works, the decision was to be taken by IRPMU. This was clarified in their letter (May 2009) also. RDSO approval to Hot standby configuration (October 2006) and withdrawal of approval in (January 2009) was also not specific to KfW funded works. The contract for project work was a complete design and build contract having an International Consultant. RDSO also stated that IRPMU already had their own pre-commissioning check lists etc., duly approved by them for all the equipments being used in the project and such works had inherent built in reliability criteria. RDSO observed that instead of using these criteria, IRPMU had tried to involve other entities such as RDSO, Railway Board, NCR etc. to disburse the issue.

The contention of RDSO indicated that its approvals/ instructions applicable for general use of configuration on IR was applied by IRPMU on their work being executed through design and build contract.

B. Centralised Traffic Control (CTC) works

CTC¹⁴¹ is in use on all high-performance Railways. Non-installation/delayed installation of CTC has the potential of compromising on increase in the capacity of Railway lines and efficient dispatching of trains. Besides, safety is also negatively impacted due to higher margin of human error within a decentralized system.

GZB-CNB route consists of six sections and the traffic at each station of the route is managed by a Station Master. It was proposed to centralise the control of Rail traffic on the route at Tundla providing six separate displays of each section and a common display reflecting all the six sections. The CTC work was included in the scope of contract awarded to M/s ASC.

Scrutiny of records relating to the status of CTC work revealed the following -

- CTC software had been developed for six out of 38 stations. Software for three stations had been tested.

¹⁴¹ CTC assists in optimising Railway operations through the centralised monitoring and control of traffic.

- CTC equipments had been shifted to CTC building at Tundla and CTC rack installed.
- M/s ASC had submitted proposal for change in CTC hardware and software, the documents of which were with RDSO for their validation.

The CTC work was badly delayed as the progress was around 12 *per cent* only. The various aspects impacting adversely on the completion of CTC work are discussed as under-

I. The location of CTC building and system

As per contract agreement, the CTC building was proposed for construction at Tundla (TDL) on the terrace at first floor of existing control office. However, there were following three options under consideration of IRPMU-

- Shift control office including CTC building to Allahabad (ALD).
- Retain CTC at TDL and the indication panel, at ALD.
- CTC at ALD with the option to operate from either of the places.

Ultimately, it was decided (May 2010) to establish CTC building at TDL as originally envisaged in the contract with parallel indication through Video Display Unit at ALD, using existing OFC cable. Evaluation of all these proposals and subsequent approval of the original proposal took five years.

As the existing control building at TDL was more than 40 years old it was felt (April 2012) that the building would not be able to bear the load of RCC roof. Hence, it was decided to construct Galvalume sheeting roof supported on built up steel truss resting on the RCC beams. Subsequently, Member Electrical (ML) decided as late as in May 2012 that a new building may be constructed exclusively for CTC purpose under a separately sanctioned work and structure already constructed for CTC building as per the existing planning might be put to alternate use. The new CTC building had been completed in January 2013. The decision of the ML to construct a new CTC building was taken after about three years from the initial date of completion of contract (July 2009).

Further, indecisiveness of the Railway to construct a building for CTC at Tundla on an existing old building and delayed decision later to construct a separate building exclusively for CTC work led to delay. This was indicative of poor initial planning and inconsistency in taking decisions.

II. Technical constraints due to delay in taking up CTC work

Delay in resolving various technical issues that emerged during execution of CTC resulted in delay in execution of work as described below:

- i. Initially it was decided to use PUMA model in the CTC. However, due to delayed construction of CTC along with negligible progress of CTC work, this model became obsolete. The contractor submitted documents for revising hardware/software of CTC system. They proposed (July 2013) for using a new model (Margey II). This proposal was approved by CAO/ IRPMU in May 2015 only.
- ii. M/s ASC submitted in June 2013 a proposal to replace Phoenix CTC system by SCC CTC system. As per records, the acceptance of the proposal was awaited (September 2014).
- iii. No specific details of the hardware to be used for CTC work were provided in the contract. The only hardware specified was the Wall display that had, however, become obsolete and replaced by a more advanced hardware by the same manufacturer. RDSO desired (December 2012) to know from IRPMU Authorities whether CTC system components proposed for the project had been used in other countries and also requested to make available the user certificates along with the changes made in hardware & software. Reply of IRPMU in this regard was awaited (July 2015).
- iv. Due to various technical aspects even the Hazard analysis¹⁴² was pending on the part of with IRPMU (July 2015).

III. **Safety and Integrity Level certification of CTC**

On the directions of the Railway Board (March 2014 and May 2014), a committee¹⁴³ met in June 2014 to decide on various Safety and Integrity Level (SIL)¹⁴⁴ requirements. There was difference of opinion and hazard analysis was not acceptable to IRPMU/DBI/RDSO. A corrigendum to the Minutes of Meeting (June 2014) was issued in July 2014 and the feasibility was confirmed. M/s. ASTS submitted a proposal with two emergency / relief terminals. IRPMU and DBI agreed to separate Emergency Relief Operations Workstation with minor modification.

Further, the complete CTC system was to be assessed by an authorized ISA regarding software safety, integrity level, personnel competence and independence of roles, verification, software integration test, Software/Hardware integration test, quality assurance test, maintainability etc. However, neither was an assessment report of ISA available nor any information/status about conduct of assessment by ISA intimated to Audit.

Thus, it was observed that due to delay (five to six years) by MoR in deciding the location of CTC building at Tundala, CTC work could not

¹⁴² *This is a first step to assess the risk involved in a process*

¹⁴³ *comprising RDSO, IRPMU, M/s ASTS - a member of the consortium of vendor and M/s DBI*

¹⁴⁴ *Measurement of performance of a safety instrumented function.*

progress and the related technical products became obsolete necessitating use of alternate products/technologies. There were also delays in approving the newly adopted technical products/technologies.

RDSO stated (August 2015) that they are technical advisor for IR and not for IRPMU. They do not carry out the work for validation of software/ hardware, Safety Integrity Level etc as for which IRPMU had their own Independent Safety Assessor who worked with their collaboration. The contention of RDSO indicated that they were unnecessarily involved in the issue and the work was related to ISA.

4.4.2.4 Change in Scope of Work

Audit observed that there were major changes in the scope of work as described below-

I. Linking EI installation at big yards to the remodeling of big yards and provision of 3rd line in ALJN-GZB section

After the commissioning of EI at Juhi (near Kanpur), RDSO approved (September 2011) the architecture of EI at big yards. MoR decided (November 2012) that the EIs at seven big yards (excluding Barhan and Shikohabad) would be commissioned along with the sanctioned works of yard remodelling. However, as per the scope of the contract awarded to M/s ASC, the EI at nine big yards¹⁴⁵ was to be done without yard remodelling. Audit, however, observed that:

- For EI of Hathras yard, Engineering Signal Plans (ESP) had been finalized in December 2008 and the Signal Interlocking Plan (SIP) approved in November 2011. EI of Hathras yard was commissioned in October 2013. Prior to this, EI work at Barhan and Shikohabad yards had been completed between 2012 and 2013. However, there were successive revisions in ESPs of the remaining Yards on account of modifications desired by various departments of NCR.
- There were delays in design analysis of ESPs by M/s ASC as some of their observations were communicated to IRPMU in April 2013 only. There were also delays in approving the designs by IRPMU due to submission of raw drawings by contractor without adequate checks at appropriate level.
- Ministry of Railways sanctioned (2003-04) third line between Aligarh (ALJN) and Ghaziabad (GZB) which needed suitable addition in the EI being provided. Such incorporation required modifications in the existing proposed EI system which led to delays in finalization of ESPs

¹⁴⁵ Barhan, Shikohabad, Hathras, Etawah, Panki, Aligarh, Khurja, Dadri and Tundla

and subsequent submission thereof by M/s. ASC to MoR for approval. The commissioning of EI at these big yards had been delayed as reflected in table below:

Table No. 1: Status of completion of electronic interlocking works in major yards

Yard	No. of revision in ESPs	Finalization of ESPs	Submission of SIPs	Approval of SIPs	commissioning of EIs	Target date for completion
Etawah	4	April 2015	January 2015	February 2015	July 2015	commissioned
Panki	4	January 2014	February 2014	March 2014	Not done	March 2016
Tundla	4	March 2014	May 2015	Not approved	Not done	March 2017.
Aligarh	2	September 2014	November 2014	November 2014	Not done	June 2016
Khurja	1	December 2013	February 2014	March 2014	Not done	December 2015
Dadri	1	January 2014	December 2013	January 2014	Not done	March 2016

This indicated that lack of co-ordination amongst different entities within IR led to significant changes in the scope of work further hampering the completion of already delayed project

II. Work relating of provision of Audio Frequency Track Circuiting (AFTC).

As per contract, the automatic signalling of the route was to be done with AFTCs. Two issues emerged in this regard, one for maximum length of end fed and center fed AFTC and the second for use of AFTC equipment manufactured by M/s Keynes India. First issue was resolved in February 2011. For resolving the second issue, RDSO evaluated at the insistence of M/s ASC the AFTC equipment manufactured by existing vendor and advised for change of vendor that was approved (June 2011). This necessitated retro-fitment of AFTCs in sections already commissioned. This work could be completed by July 2013. It was observed that:

- Ministry of Railways decided (November 2006) to use dual detection system¹⁴⁶ at 12 stations and associated block sections and only DC track circuit at stations. This decision had impact on certain activities¹⁴⁷. Meanwhile, automatic signaling had been commissioned in three

¹⁴⁶ Use of AFTC and Axle counters working in parallel at 12 stations and associated block section and only DC track circuits at stations.

¹⁴⁷ (a) SIP, Selection Table, interface circuits, application logic preparation etc (b) Cable core allocation charts and other field designs preparation, (c) Power supply requirement of LSC and stations, (d) Material procurement and (e) Assessment of hazards of such system.

sections¹⁴⁸ without using dual detection. Indian Railways had the experience of AFTC failures mainly on account of theft and vandalism leading to failures of Automatic Signals and detention of trains. To overcome the problem, Railway Board decided (January 2007) to use dual detection at all stations and block sections. However, this decision was communicated to executing authorities in April 2009 only. The work as per Railway Board's directives could be started only after June 2009.

- The contract did not have the provision for continuous use of DC Circuit at LSCs (Line Side Cabinet) and stations. Besides providing for this, the implementation of decision necessitated the preparation of cable core allocation charts and field designs which affected the procurement of material. At those stations where work had not been taken up by that time, changes like additional shunt signals and provisions of Stand Hump/dead ends etc. had to be carried out.

III. Work relating to installation of Mobile Switch Centre/Intelligent Network (MSC/IN) and Mobile Train Radio Communication (MTRC)

Initially, MSCs/IN for the Project was to be procured and installed at two places (Tundla on the route and Secunderabad for training purpose). However,

IR dropped (December 2011) the proposal for installation of MSC/IN at Secunderabad and also changed the location of MSC/IN from Tundla to Kolkata. The change in planning was made after 30 months from the initial date of completion of contract (July 2009).

Audit observed that:

- MSC/IN had not been installed (July 2015) at Kolkata as change in location from Tundla to Kolkata necessitated the involvement of three Zonal Railways.¹⁴⁹ Further, MSC/IN could function only after the erection of all the remaining Towers in New Delhi- Howrah route. The pace of erection of Towers had been slow thereby further delaying the achievement of desired benefits of telecommunication.
- The work of Mobile Train Radio Communication (MTRC) on GZB – MGS section was to provide better communication facility among officers and staff of operating and Railway station. MoR applied for the license of spectrum¹⁵⁰ (May 2007) and the frequencies in GSM band with Spectrum Charges revisable from time to time was allotted

¹⁴⁸ TDL-HNG, HNG-FZD and JJK-KNS

¹⁴⁹ ER, ECR and NCR

¹⁵⁰ To Ministry of Communication & IT, Department of Telecommunication (WPC Wing), New Delhi.

(July 2007) by the concerned Ministry. However, the work for Exchanges and Towers on GZB-MGS route could not be completed due to reasons such as change of vendor¹⁵¹, delay in tower erection and delay in approval of MTRC equipment (FAT and MSC/IN) by RDSO and the facility of MTRC could not be utilized. Payment of ₹ 24.09 crore towards spectrum charges had been made for the period July 2012 to March 2014 without any use/benefit of spectrum frequencies.

IV. Work relating to supply and installation of Towers and Shelters

A contract was awarded (February 2006) to M/s Leighton Asia (Southern) Limited¹⁵², a consortium of five partners, for supply and installation of Towers and Shelters en-route. The Consortium changed the responsibility to M/s. MRT Signals Ltd and informed (November 2006) their decision to Railway for its acceptance. Although there was no approval for the change in executing agency, M/s. MRT Signals commenced the work and submitted a bill in August 2008 for 19 out of 31 Towers erected by the firm¹⁵³.

It was seen that the payment had been denied as the work was not executed by M/s Leighton Asia (Southern) Ltd., the appointed agency. Railway Board, however, decided (April 2011) that required change was related to change in the responsibility of execution of work and could be made at Railway's level with necessary vetting. IRPMU advised (December 2011) M/s. ASC to submit undertaking to the effect that the work would continue pending decision on their request. They were also asked to adhere to the commercial terms and absorb associated costs. Although work was being executed by the changed agency, no decision had been taken by Railway for making payment and as a result, erection of 19 Towers remained pending (July 2015).

4.4.2.4 Other Contractual Changes

A. Change of vendor

As per contract agreement, GSM-R equipment¹⁵⁴ was to be supplied by M/s. Nortel. No work was executed by them till January 2009 when they filed for bankruptcy protection. M/s. ASC, therefore, requested (January 2009) that supply of GSM-R be obtained from M/s. Nokia Siemens. IRPMU agreed to the proposal in principle as late as in June 2010 only. The work was held up during the intervening period.

¹⁵¹ from M/s Nortel to M/s Nokia Siemens,

¹⁵² now Leighton International Limited

¹⁵³ As per the contract, the firm was to erect 61 towers

¹⁵⁴ Global system for mobile communications of Railway

B. Change of currency for payment

As per contract agreement, the rate of Synchronous Digital Hierarchy/Synchronous Transfer Mode (SDH/STM) equipments was quoted in USD currency. The contractor informed (April 2009) Railways that although quoted currency value was in USD, country of origin of these items was India. It was requested for allowing invoicing of these items in Indian currency with conversion rate of contract. The Contractor also submitted (August 2009) a request for change in currency of these items. Railway Board decided (April 2011) that change in currency should be done by the Tender accepting Authority. The decision on the issue was pending with the Railway (March 2015).

C. Performance and reliability of equipments installed by contractor

It was observed that:

- RDSO had brought to the notice of the Railway Board (September 2011) the poor reliability of various signaling assets. Out of almost 350 IPSs provided, there had been failures of 12 IPSs. Due to increase in failures, RDSO stopped inspection of two vendors and issued instruction to all the suppliers of various signaling assets to conduct auditing of IPS installations and attend to existing deficiencies and defective cards.
- RDSO developed new design with static switches to check the problem of change over to inverter. The specification of LED signals was revised with improved current regulator and integrated LED signals which were likely to arrest the failure rate. Failure of AFTC was on the higher side mainly due to track lead connections, loose contact, rusting of nuts and bolts, OHE masts connected at ESJ section, non use of proper insertion/removal tools resulting in loose connection, cable not crimped properly, problem due to rails immersed in ballast during TRR works etc.
- There were excessive failures of EIs installed by M/s ASC and an action plan was drawn up to arrest the same. The corrective action was delayed as a result of which RDSO had to stop further inspection of EIs. Action plan for improvement of Level Crossing gates including provision of double magnets was drawn in 2011. Audit observed that there were instances of 56 EIs failures during the 2012-13 despite implementing the action plan decided by the apex level meeting in the Railway Board. The failure of component / part was leading to failure of entire system indicating serious design defect in the logic of the system. CSTE had recommended for a third party validation of the whole system to ensure proper reliability and long term sustainability. In addition to the above, CSTE also noticed (November 2013) the

frequent failures of LCPs with new phenomenon of communication fault. Total train operation was severely affected for 20 minutes on 31 October 2013 due to failure in golden box at Achhalda station. There were 21 cases of failures of LCPs in September and October 2013 (maximum being for 42 minutes) badly affecting the total train operation due to heavy detention of trains.

Thus, poor reliability of signaling assets and slow pace in rectifying the failures on account of these, besides change in specification, design etc. delayed the completion of the Project. These frequent failures of LCPs of EIs in GZB-CNB section resulted in delay in completion of the project.

RDSO stated (August 2015) that their instructions are for IR and not for IRPMU. The role of RDSO was never intimated to RDSO by IRPMU.

D. After effects of various changes in scope of works and lack of co-ordination among Railway Authorities

The changes in the scope of works necessitated item rate based negotiations between M/s. ASC and MoR which made a lump sum turnkey contract into a normal contract. The summary of proposals for change in the scope of work and their status has been exhibited in *Annexure 1 and Annexure 2*. Audit observed that the coordination among Railway Authorities was inadequate as described below-

- i. MoR and IRPMU failed to ensure pre-requisite conditions of tender and sanction of estimates. This failure necessitated multiple changes in the scope of work leading to delay in execution of work as well as cost overrun.
- ii. Preparation and approval of signaling plans, cable route plans, cable laying scheme, circuits diagrams, designs and drawings were necessary prior to execution of works, these were required to have been prepared and approved by the Competent Authority prior to execution of work. However, there were many post agreement contractual technical issues before IRPMU. They had been pursuing these issues with MoR and RDSO. They had also requested several times for delegation of powers. MoR, however, only delegated (in February/ April 2011) the powers to deal with contract matters not involving change in payment conditions¹⁵⁵ to IRPMU. After this, IRPMU was able to settle some contractual issues.
- iii. IRPMU was to be the effective arm for the project. General Manager, North Central Railway and Member Electrical in MoR were to perform designated functions for the project on proposals received by them from

¹⁵⁵ *Railway Board letter No. 2011/Sig/KfW/Rev. Dated 02.02.2011 and No. 2006/Sig/KfW/Rev/Loose 2 dated 18.04.2011.*

- IRPMU and also to give directions to IRPMU. However, the proposals were dealt with by them in a routine manner as originating from a regular subordinate formation. The technical skills of Railway officials and their partners to undertake the project introducing advance technologies on IR were also assessed to be weak.
- iv. Most of the changes required to be made in the contract were as a result of post agreement decisions/ directions of MoR/ RDSO. IRPMU referred issues related to these changes to GM/NCR and MoR for decision/ guidance. However, the references made to MoR were generally disposed of with the directions to IRPMU to deal them as per terms and conditions of the contract agreement. Since the contract envisaged introduction of advanced technology in IR, the MoR was required to provide specific guidance expeditiously. MoR had also not delegated any power to GM/NCR to resolve the issues for timely completion of Project works except that provided in April 2011 in respect of non-financial matters.
 - v. The contract awarded to M/s ASC was a Design and Build contract wherein involvement of RDSO was not envisaged. However, MoR involved RDSO in the project working as technical monitor. Their advice/approval on products/technology had to be reversed as in the case of EI work.
 - vi. Despite financial implications, many proposals submitted by contractor to MoR for making changes in the scope of work were either not resolved or were resolved late. Even the change proposals not involving financial implications were pending.
 - vii. The fortnightly meetings between M/s ASC and IRPMU covered issues like progress of works, filling of Measurement Books and pending change proposals etc. The status / outcome of each of such meetings were to be signed by both the parties. However, by October 2014 M/s ASC had started to send unilateral weekly reports containing misleading information not reflected in the minutes of joint fortnight meetings. IRPMU recognized (October 2014) that misleading weekly reports by M/s ASC were intended to be used in the event of Arbitration, as threatened by them now and then. It is apparent that the pending of many technical issues / change proposals particularly at MoR level carried the risk of use of Arbitration/ Judicial forum by M/s ASC. Despite such a threat, there was a lack of sensitivity in this regard for want of suitable internal control mechanism. As a consequence, IRPMU could be a soft target to face the adverse impact of decrees/ pronouncements.
 - viii. As already stated in Paragraph 4.4.1- Appendix III and IV, the offer of M/s ASC against the Global Tender floated for the execution of this specific safety work involving advanced technology was not found to

- be technically suitable by the Consultant. The engagement of M/s ASC proved to be a reason for many changes in the scope of work as well as lack of delivery of quality product/technology. It is important to mention that there was not a single instance where design submitted by M/s ASC had not been corrected by IRPMU/ Consultant (DBI) which involved considerable time in observing mistakes and their rectification.
- ix. The engagement of Consultant for this project through contract (December 2003) was based on the advice of a survey agency who studied on behalf of KfW the feasibility of this project prior to loan agreement. The advice was based on surveyor's views that IR personnel had no experience in design, installation and maintenance of electronic interlocking. Interestingly the contract was awarded on 'Single Tender' basis to the Surveyor who recommended it. Certain duties¹⁵⁶ assigned to the Consultant were of routine nature and were already being performed by IR Engineers in the seven ongoing S&T modernisation works that were merged (2002) in the scope of project work. Even with the engagement of a Consultant, the technical contractual issues could not be resolved quickly and efficiently resulting in association of RDSO and verification/certification of ISAs for the products and technology being introduced. Effective evaluation of technical capabilities of key personnel of the partners of the consortium of consultants did not appear seem to have been done. The competence of the Consultant for such a modernisation project was required to be assessed as the consultancy charges payable to them were substantial.
- x. The IRPMU Engineers and technical staff monitor and certify the work executed by the contractor. There were cases where M/s. ASC was carrying out the work without any authorized acceptance for required change. For example, instances of the supply of EPROM PCB and CPU from indigenised firm instead of USA, changing the responsibility of consortium partner for GSM-R tower work, requesting change in currency for control unit basic hardware (Moxa, RS 232OF modem & serial com cable) and vendor change for AFTC from CSEE France to *Keynes* India and Phoneix CTC system to SCC CTC system may be mentioned.
- xi. In view of KfW's decision not to disburse loan beyond December 2014, MoR decided (February 2015) to execute balance S&T modernisation work by utilizing GBS. As a result, the estimates already modified to suit the requirement and provisions in accordance with KfW loan conditions, would require further revision to suit domestic conditions for GBS.

¹⁵⁶ (i) Preparation of draft Project report, finalization of tender specifications and documents, (ii) Preparation of final evaluation report of the bidder,(iii). Check of system design, drawing and documentation, preparation of test / test protocols and (iv). Supervision of the execution of site work, testing of equipments, sub-system and integrated system as a whole and commissioning of the projects.

It was evident from the above that the urgency shown by MoR for availing of the external fund arrangement did not match the pace of execution of work. Significant increase in line capacity and safety levels through introduction of improved/modernized systems¹⁵⁷ could not be achieved even after six years from the initial date of completion.

4.5 Fund Management

A review of sanctioned estimated costs of works, provision of funds vis-a-vis actual expenditure incurred in respect of works funded by KfW works during the review period i.e. 2009-10 to 2013-14 revealed the following-

- i. In order to avail KfW loan, MoR decided (February 2001) that revisions/modifications required in the already sanctioned works would be processed as per normal procedure and that new works would be processed for sanction for inclusion in Pink Book 2002-03. As such, seven already sanctioned works estimates required revision/modification in accordance with the conditions imposed for loan by KfW and in respect of four new works, action was to be taken for sanction and preparation of estimates. Out of 11 works forming part of project, three works¹⁵⁸ had not yet been sanctioned (March 2014) as per KfW loan conditions and estimates of other works were revised/ modified with delays (4 to 24 months).
- ii. There were defects in budgeting in respect of eleven KfW funded works. MoR could not anticipate the actual requirement of funds either at the stage of original budget grant or at final grant stage. The original budget grant for KfW funded works for the period 2009-14 was ₹535.29 crore which was reduced to ₹354.41 crore (34 per cent reduction) at final grant stage. Against it, the actual expenditure incurred was ₹304.94 crore resulting in surrender of 14 per cent of funds (₹49.47 crore). The overall surrender of funds with reference to original budget grant was ₹ 230.35 crore (43 per cent). Further, in respect of one work¹⁵⁹, the actual expenditure incurred was 61 per cent less than the final budget grant. The work-wise position is depicted in *Annexure -3*. This indicated that the progress of works was slow as substantial amount had to be surrendered.
- iii. On the other hand, although the expenditure incurred on four works had exceeded (March 2014) the sanctioned estimated cost by ₹32.80 crore (30 per cent), the estimates of those works had not been revised to regularize the unsanctioned expenditure. The reasons for getting excess final grant

¹⁵⁷ *Centralized Electronic Interlocking, ABS, Automatic Train Stop System/Auxiliary Warning System and Train Radio and Optical Fiber Communication system.*

¹⁵⁸(i). *GZB-CNB: Replacement of signalling gears by SSI (5 stations), (ii) . GZB-TDL: Replacement of signalling gears by SSI (7 stations) (iii) GZB-ALJN: Automatic Signalling.*

¹⁵⁹ *GZB-TDL: Replacement of signalling gears by SSI (7 stations)*

sanctioned and non incurrence of expenditure to the required extent were not available in IRPMU records.

- iv. Initially, the amount admissible against KfW loan was Euro 94.40 million and the same was decreased to Euro 64.40 million due to surrendering of loan amount, de-scoping of some works from the overall scope of project. Of them, 67 per cent (43 million Euro) of the loan could be utilised by December 2014.
- v. MoR anticipated (31 March 2015) the latest cost of the project at ₹ 736.81 crore registering an increase of ₹291.24 crore (65.36 per cent) in the earlier original/ revised cost (₹ 445.57 crore). The expenditure incurred till March 2015 was ₹ 510.09 crore (69 per cent). It was observed that at least a sum of ₹ 226.72 crore would be required from GBS to complete the work as is evident from *Annexure -4*.
- vi. As per Railway Board circular¹⁶⁰ and clause 62 of the General Conditions of Contract, the contract agreement should be signed within 28 days from date of issue of letter of acceptance (LOA) and in case of failure, amount deposited as earnest money with bid is to be forfeited by Railways. M/s Ansaldo Signal Consortium entered into the contract agreement on February 1, 2006 (after 110 days from the date of issue of LOA, 28th September 2005). In spite of this, IRPMU Administration had not forfeited the earnest money of the contractor amounting to 2.5 Million Euro (March 2014).
- vii. Although MoF was required to make payment of commitment charges to KfW towards undisbursed amount of loan and they had made payment of ₹28.63 crore¹⁶¹ up to March 2014, IRPMU Administration had unnecessarily paid commitment charges valuing ₹ 8.26 crore¹⁶² (February 2004) to MoF.
- viii. MoR was required¹⁶³ to provide funds from GBS for bearing the local costs and duties. As per Railway Board's orders, a Railway Organisation is required to provide in the estimates of works the Direction and General (D&G) charges¹⁶⁴. Railway Board has prescribed provision of D&G charges at the maximum rate of 14.83 per cent and 10.69 per cent respectively in respect of S&T projects requiring traffic blocks and those not requiring traffic blocks respectively. Efforts were required to be made to restrict the actual provision to the barest minimum.

¹⁶⁰ Railway Board circular no. 64/W2/CT/28 dated 05.07.1983

¹⁶¹ Statement of Commitment charges on undisbursed amount of loan made available by MoF

¹⁶² Bill no. F-291 dated 03.02.2004

¹⁶³ As per Loan Agreement

¹⁶⁴ D&G charges cover the cost of gazetted and non-gazetted staff required to provide & supervise and give directions during the execution of works besides other expenditure such as Plant construction, temporary accommodations, residential accommodations, instruments and contingencies etc, mentioning the ceilings in percentage terms.

- ix. The assessment of requirement of material for KfW funded works was done by the Consultant, the technical expert. However, the quantities of Signalling cable, quad core cables and Optical Fibre Cables made available to M/s ASC (6691 kms) were in excess of the scheduled contract quantities (3019 kms) and quantities of cables (3672 kms) worth ₹52.98 crore procured in excess of requirements were lying in stock at Tundla Depot (March 2014).
- x. For levying D&G charges, IRPMU derived a uniform rate of 13.68 *per cent* in view of the fact that execution of some KfW funded works involved traffic blocks and some did not. As per Works Registers, D&G charges booked to works were 19.02 *per cent* for 2011-12, 18.30 *per cent* for 2012-13, 33.28 *per cent* for 2013-14. IRPMU had no control over increasing trend of D&G charges as it registered increase between 4.62 *per cent* and 19.60 *per cent* during 2011-15. Further, although in normal course the supervision, inspections, maintenance and other related activities are performed by the Railway Officers/ Engineers posted in the Project, a Consultancy contract was awarded in respect of execution of 11 KfW funded works. However, the consultancy charges (Euro 6.72 million payable up to December 2013) were not included in the D&G charges booked by IRPMU. Had it been done, the rate of D&G charges would have been further increased substantially.

Thus, although the loan from a German bank was taken due to fund constraint, the same could be utilized to the extent of 67 *per cent* only. Due to slow progress of works substantial amount out of initially allotted budget grant and also of revised final grant had to be surrendered.

4.6 Conclusion

In view of the urgency involved in modernisation of S&T system on Ghaziabad (GZB) – Kanpur (CNB) rail route, IR took up the project for execution through IRPMU arranging a loan from a German Government owned Development Bank.

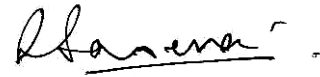
The preparedness of Indian Railways prior to award of contract was not adequate due to which many post agreement contractual and technical issues emerged which required a substantial period of time for settlement.

The scheduled date of completion of major contract was fixed as July 2009. However, the progress of the project was 35 *per cent* only till July 2009. Despite several extensions, the progress of projects was 69 *per cent* only (December 2014). Due to slow progress of works, ‘Loan Agreement’ with KfW was terminated in February 2015. MoR, therefore, decided to get the balance work completed utilising GBS. MoR took up this sensitive and important safety project on urgent basis. However, delays on various accounts

at initial planning stage delayed the formation of IRPMU. This had led to the delay in award of contract. KfW loan remained undisbursed till the formation of IRPMU resulting in avoidable payment of commitment charges amounting to ₹28.63 crore till March 2014. Indian Railways failed in achieving the intended objective of the project even after a decade.

4.7 Recommendations

- i. *In absence of foreign financial support, MoR needs to frame realistic timelines and ensure their adherence for timely completion of the balance works of the project and also ensure optimal utilisation of Gross Budgetary Support.*
- ii. *For all future modernisation projects, MoR needs to ensure compliance of requisite preliminary formalities such as finalisation of designs, specifications, technologies and other related issues prior to award of contract for smooth progress of the project.*
- iii. *To avoid consequences of arbitration/court cases, MoR needs to ensure timely decisions on all technical matters during execution stage.*



(SUMAN SAXENA)

Deputy Comptroller and Auditor General

New Delhi

Dated: 23 November 2015

Countersigned



(SHASHI KANT SHARMA)

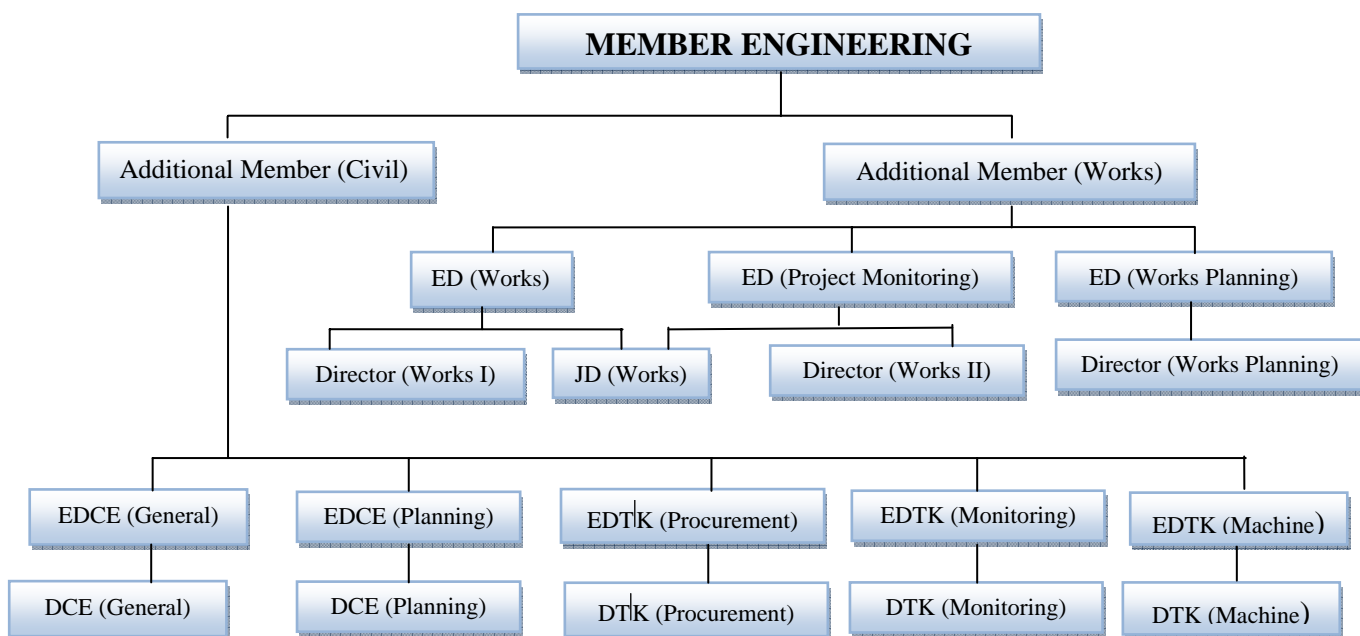
Comptroller and Auditor General of India

New Delhi

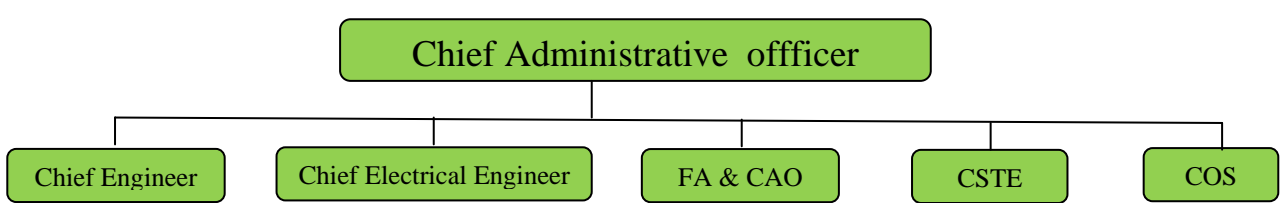
Dated: 23 November 2015

Appendix 1 (Ref Para 1.2)

ORGANISATION CHART OF CIVIL ENGINEERING DIRECTORATE



Railway Board Level



Zonal Railway Level

ED - Executive Director, **JD** -Joint Director, **EDCE** - Executive Director Civil Engineering, **DCE** - Director Civil Engineering, **EDTK** - Executive Director Track , **DTK** - Director Track, **FA&CAO** - Financial Advisor and Chief Accounts Officer, **CSTE** - Chief Signal and Telecom Engineer, **COS** - Controller of Stores

APPENDIX – II (REF. TO PARA – 1.4)

Zonal Railways	High Priority Projects	Projects with maximum time overrun and cost overrun	Projects without milestones	Projects without revised cost estimate	Projects without revised commissioning schedule	Projects frozen/abandoned or dropped	Projects identified for detailed review	Last mile projects	Projects on cost sharing basis with the State Govt. or other agencies (other than PPP projects)	Project falling in more than one categories	Total project selected repetition counted once)
CR	1) Wardha (Sevagram)-Nagpur-3rd Line 78.3 km (DL)	1) Belapur –Seawood-Uran Electrified Double Line(MTP) (NL)	1) Belapur – Seawood-Uran Electrified Double Line(MTP) (NL)	NIL	Ahmednagar-Beed-Parli-Vajjnath (NL)	NIL	NIL	1)Panvel-Pen (DL) 2) Pen – Roha (DL)	1) Ahmednagar Beed-Parli-Vajjnath (NL) 2) Wardha-Nanded (NL) 3) Belapur –Seawood-Uran Electrified DL (MTP) (NL)	1. Belapur- Seawood uran (TOR/COR, WMS & Cost Sharing or other than PPP) 2. Ahmednagr - Beedparli (WRCS & Cost sharing or other than PPP)	6
	1	1	1	0	1	0	0	2	3	2	
ER	1. Rampurhat-Muraro MM (28.48 km) - 3rd line	Nil	Nil	Nil	Nil	Nil	1) Nabadwipdham-Patuli (DL)	Nil	1) Bardhaman-Katwa (GC)	1. Bardhman-Katwa (DR,CS or other than PPP) 2. Tinpahar-Sahibganj (HP, DR)	11
	2. Tinpahar-Sahibganj (DL) (37.82 km as Phase I of DL of Tinpahar-Bhagalpur)						2) Tinpahar- Sahibganj (DL)		2) Dumka-Rampurhat (NL)(phase-II of project Rampurhat-Mandarhill via Dumka)		
	3. Sahibganj-Pirpainti (DL) (10.45 km)						3) Bardhaman-Katwa (GC) with New (MM) for Katwa-Bazarsau (DL), Katwa [Dainhat]-Manteswar Negum-Mangalkot, Manteswar-Memari-(NL)		3)Deoghar-Dumka (NL)		

APPENDIX – II (REF. TO PARA – 1.4)

Zonal Railways	High Priority Projects	Projects with maximum time overrun and cost overrun	Projects without milestones	Projects without revised cost estimate	Projects without revised commissioning schedule	Projects frozen/ abandoned or dropped	Projects identified for detailed review	Last mile projects	Projects on cost sharing basis with the State Govt. or other agencies (other than PPP projects)	Project falling in more than one categories	Total project selected (repetition counted once)
	4. Pirpainti-Bhagalpur (59.06 km)								4) Hansdah-Godda (NL)		
	5. Sainthia-Tarapith 3rd line (DL)										
	6. Tarapith-Rampurhat (DL)										
	6	0	0	0	0	0	3	0	4		
ECR	1) Hajipur-Ramdaualu Nagar (DL)	Nil	Nil	Nil	1) Jayanagar – Darbhanga-Narkatia Gunj (GC)	Nil	1) Koderma – Ranchi, (NL)	Nil	<i>1) Koderma- Ranchi (NL)</i>	<i>1. Koderma-Ranchi (DR, CS other than PPP)</i>	
	2) Garhwa Road-Ramna (DL)						2) Sakri-Nirmali - Jhanjharpur-Laukaha Bazar - Saharsa – Forbesganj,(GC)		2) Koderma- Giridih(NL)		
									3) Rail Bridge across River Ganga at Patna (NL)		
									4) Rail Bridge across River Ganga at Munger (NL)		
									5) Koderma- Tilaiya (NL)		

APPENDIX – II (REF. TO PARA – 1.4)

	2	0	0	0	1	0	2	0	5	1	
Zonal Railways	High Priority Projects	Projects with maximum time overrun and cost overrun	Projects without milestones	Projects without revised cost estimate	Projects without revised commissioning schedule	Projects frozen/abandoned or dropped	Projects identified for detailed review	Last mile projects	Projects on cost sharing basis with the State Govt. or other agencies (other than PPP projects)	Project falling in more than one categories	Total project selected (repetition counted once)
ECoR	1) Jharsuguda-Rengali (DL)	Nil	1) Khurda Road – Bolangir, (NL)	Nil	Nil	Nil	1) Talcher-Bimlagarh (NL)	Nil	Nil		5
	2) Khurda-Barang-3rd line (RVNL)										
	3) Rajatgarh-Barang (DL) (RVNL)										
	3	0	1	0	0	0	1	0	0		
NR	1) Utretia-Zafrabad (DL)	1) Nangal Dam – Talwara. (NL)	1) Nangal Dam – Talwara. (NL)	1) Udham Pur-Srinagar-Baramulla Rail Link. (NL)	1) Nangal Dam – Talwara. (NL)	Nil	1) Rewari-Jhajjar-Rohtak (NL)	Nil	1) Nangal Dam – Talwara (NL)	1. Nangal Dam-Talwara (TOR/COR,WMS,WR CS, Cost sharing/other than PPP) 2. Udampur-srinagar-baramulla rail link (TOR/COR,WMS,WR CE)	10

APPENDIX – II (REF. TO PARA – 1.4)

Zonal Railways	High Priority Projects	Projects with maximum time overrun and cost overrun	Projects without milestones	Projects without revised cost estimate	Projects without revised commissioning schedule	Projects frozen/ abandoned or dropped	Projects identified for detailed review	Zonal Railways	Projects on cost sharing basis with the State Govt. or other agencies (other than PPP projects)	Project falling in more than one categories	Total project selected (repetition counted once)
		2) Udham Pur-Srinagar-Baramulla Rail Link. (NL)	2) <i>Udham Pur-Srinagar-Baramulla Rail Link. (NL)</i>				2) NDLS-Tilak Bridge – 5 th & 6 th line (DL)		2) Rewari – Rohtak (NL)		
									3) Jind – Sonapat (NL)		
									4) Chandigarh – Baddi (NL)		
									5) Deoband – Roorkee (NL)		
									6) Bhanupalli – Bilaspur (NL)		
									7) Rohtak – Meham - Hansi (NL)		
	1	2	2	1	1	0	2	0	7	2	

APPENDIX – II (REF. TO PARA – 1.4)

Zonal Railways	High Priority Projects	Projects with maximum time overrun and cost overrun	Projects without milestones	Projects without revised cost estimate	Projects without revised commissioning schedule	Projects frozen/ abandoned or dropped	Projects identified for detailed review	Zonal Railways	Projects on cost sharing basis with the State Govt. or other agencies (other than PPP projects)	Project falling in more than one categories	Total project selected (repetition counted once)
NCR	Nil	Nil	Nil	Nil	Nil	Nil	1) Agra-Etawah (NL)	1) Bhind-Etawah (Part of Guna-Etawah via Shivpur i) (NL)	Nil	Nil	3
							2) Dholpur-Sirmutra(GC) with extension upto Gangapur City.				
	0	0	0	0	0	0	2	1	0	0	
NER	Nil	Nil	Nil	Nil	Nil	Nil	1) Maharajgang-Masarakh-Rewa Ghat (NL)	Nil	Nil		2
							2) Aunrihar-Jaunpur (GC)				
	0	0	0	0	0	0	2	0	0		

APPENDIX – II (REF. TO PARA – 1.4)											
Zonal Railways	High Priority Projects	Projects with maximum time overrun and cost overrun	Projects without milestones	Projects without revised cost estimate	Projects without revised commissioning schedule	Projects frozen/ abandoned or dropped	Projects identified for detailed review	Last mile projects	Projects on cost sharing basis with the State Govt. or other agencies (other than PPP projects)	Project falling in more than one categories	Total project selected (repetition counted once)
NFR	1) Lumding-Silchar (GC)	1) Katihar-Jogbani (GC)	Nil	1) Bogibeel Bridge with link Lines(NL)	Nil	Nil	1) New Mainaguri-Jogighopa (NL) 2) Rangia-Murkongselek (GC)	1) Lumding - Silchar (GC) 2) Rangia-Murkongselek (GC).	Nil	1. Lumding-Silchar(HP,LM) 2. Rangia-Murkongselek (DR, LM)	5
	1	1	0	1	0	0	2	2	0	2	
NWR	Nil	Nil	Nil	Nil	Nil	Nil	1) Jaipur-Ringus-Churu & Sikar-Loharu (GC)	Nil	1) Ratlam-Dungarpur via Banswara (NL)		4
							2) Suratpura-Hanumangarh-Sriganganagar section(GC)		2) Thaiyat Hamira-Sanun (NL)		
	0	0	0	0	0	0	2	0	2		

APPENDIX – II (REF. TO PARA – 1.4)

Zonal Railways	High Priority Projects	Projects with maximum time overrun and cost overrun	Projects without milestones	Projects without revised cost estimate	Projects without revised commissioning schedule	Projects frozen/ abandoned or dropped	Projects identified for detailed review	Last mile projects	Projects on cost sharing basis with the State Govt. or other agencies (other than PPP projects)	Project falling in more than one categories	Total project selected (repetition counted once)
SR	1) Thanjavur-Ponmalai (DL) with bypass line before Ponmalai	Nil	Nil	Nil	Nil	1) Erode-Palani (NL)	1) Tindivanam-Nagari (NL)	Nil	1) Cuddalore-Salem via Vridhdhachalam (GC) with a (NL) between Chinna Salem and Kallakuruchi		9
	2) Kankanadi-Panambur Patch (DL)						2) Tindivanam-Tiruvannamalai (NL)		2) Attipattu-Puttur (NL)		
							3) Angamali-Sabarimala (NL)				
							4) Quilon-Tirunelveli-Tiruchendur (GC), Tenkasi-Virudhunagar (GC)				
	2	0	0	0	0	1	4	0	2		

APPENDIX – II (REF. TO PARA – 1.4)

Zonal Railways	High Priority Projects	Projects with maximum time overrun and cost overrun	Projects without milestones	Projects without revised cost estimate	Projects without revised commissioning schedule	Projects frozen/ abandoned or dropped	Projects identified for detailed review	Last mile projects	Projects on cost sharing basis with the State Govt. or other agencies (other than PPP projects)	Project falling in more than one categories	Total project selected (repetition counted once)
SCR	1) Vijayawada – Kazipet 3 rd Line with electrification.	Nil	Nil	Nil	Nil	Nil	1) Bidar - Gulbarga	1) Peddapalli - Karimnagar - Nizamabad	1) Bidar - Gulbarga	1. Bidar-Gulbarga (DR, LM, CS other than PPP) 2. Nandyal - Yaregunta (DR, LM)	7
						2) Nandyal – Yerraguntla	2) Jaggaiah peta Town – Mellacheruvu with (MM) for Mellacheruvu - Janpahad	2) Cuddapah - Bangalore(NL)			
						3) Akola - Khandwa (GC)	3) Nandyal – Yerraguntla				
							4) Bidar - Gulbarga				

APPENDIX – II (REF. TO PARA – 1.4)

Zonal Railways	High Priority Projects	Projects with maximum time overrun and cost overrun	Projects without milestones	Projects without revised cost estimate	Projects without revised commissioning schedule	Projects frozen/ abandoned or dropped	Projects identified for detailed review	Last mile projects	Projects on cost sharing basis with the State Govt. or other agencies (other than PPP projects)	Project falling in more than one categories	Total project selected (repetition counted once)
	1	0	0	0	0	0	3	4	2	2	
SER	1) Goelkera – Manoharpur 3 rd line (DL)	1) Bankura – Damodar River valley (GC) with six (MMs) (NL)	1) Tamluk – Digha (NL) with four MMs	Nil	Nil/silent	1) Bowaichandi – Arambagh (NL)	Nil	Nil	1) Ranchi – Lohardaga with extension to Tori(GC)	1. Tamluk-Digha (TOR/COR, WMS,F/A/Dropped)	6
	2) Sini – Adityapur 3 rd line (DL)	2) Tamluk – Digha (NL) with four MMs				2) Tamluk – Digha (NL) with four MMs					
	2	2	1	0	0	2	0	0	1	1	
SECR	1) Khodri-Anuppur with flyover at Bilaspur (DL)	Nil	Nil	Nil	1) Gondia – Jabalpur,(GC)	Nil	1) Chhindwara – Nagpur, (GC)	Nil	1) Dhallirajahara – Jagdalpur (NL) 2)Wadsa – Gadchiroli and two Projects (NL)	1. Gondia - Jabalpur (WRCS,DR,CS other than PPP)	7

APPENDIX – II (REF. TO PARA – 1.4)

Zonal Railways	High Priority Projects	Projects with maximum time overrun and cost overrun	Projects without milestones	Projects without revised cost estimate	Projects without revised commissioning schedule	Projects frozen/ abandoned or dropped	Projects identified for detailed review	Last mile projects	Projects on cost sharing basis with the State Govt. or other agencies (other than PPP projects)	Project falling in more than one categories	Total project selected (repetition counted once)
	2) Salka Road-Khongsar-Patch doubling (DL)						2) <i>Gondia – Jabalpur (GC) including Balaghat Katangi,(GC)</i>				
	3) Champa-Jharsuguda-3rd line (DL)										
	3	0	0	0	1	0	2	0	2	2	
SWR	1) Birur-Shivani Patch (DL)	1) Hubli-Ankola (NL)	Nil	Nil	<i>1) Hubli-Ankola (NL)</i>	<i>1) Hubli-Ankola (NL)</i>	1) Munirabad-Raichur (NL)	Nil	1) Kadur-Chikmagalur-Sakaleshpur (NL)	<i>1. Hubli-Ankola (TOR/COR,WRCS,F/A/Dropped) 2. Bangalore-Sathyamangalam (F/A/Dropped, CS other than PPP) 3. Munirabad-Raichur (DR,CS other than PPP) 4. Raidurga-Tumkur(DR,CS other than PPP)</i>	13
	2) Hosadurga Road-Chikjajur Patch (DL)					2) Bangalore – Sathyamangalam (NL)	2) Rayadurga-Tumkur via Kalyandurga (NL)	2) Bangalore –Hassan via Shravanabelagola (NL)			
								3) <i>Rayadurga-Tumkur via Kalyandurga (NL)</i>			

Status of Ongoing Projects in Indian Railways – New Line, Doubling and Gauge Conversion

Zonal Railways	High Priority Projects	Projects with maximum time overrun and cost overrun	Projects without milestones	Projects without revised cost estimate	Projects without revised commissioning schedule	Projects frozen/ abandoned or dropped	Projects identified for detailed review	Last mile projects	Projects on cost sharing basis with the State Govt. or other agencies (other than PPP projects)	Project falling in more than one categories	Total project selected (repetition counted once)
									5) Bagalkot-Kudachi (NL)		
									6) Whitefield-Kolar (NL)		
									7) Tumkur-Chitradurga-Davanagere (NL)		
									8) Shimoga-Harihar (NL)		
									9) Bangalore-Sathyamangalam (NL)		
									10) Ramanagram-Mysore (DL)		
	2	1	0	0	1	2	2	0	10	4	

APPENDIX – II (REF. TO PARA – 1.4)

Zonal Railways	High Priority Projects	Projects with maximum time overrun and cost overrun	Projects without milestones	Projects without revised cost estimate	Projects without revised commissioning schedule	Projects frozen/ abandoned or dropped	Projects identified for detailed review	Last mile projects	Projects on cost sharing basis with the State Govt. or other agencies (other than PPP projects)	Project falling in more than one categories	Total project selected (repetition counted once)
WR	1) Viramgam-Surendernagar (DL)	Nil	Nil	Nil	Nil	Nil	1) Chhoto-Udepur Dhar (NL)	Nil	Nil		4
	2) Udhna-Jalgaon (DL) with electrification						2) Ratlam-Mhow-Khandwa-Akola (GC)				
	2	0	0	0	0	0	2	0	0		
WCR	1) Bhopal-Bina -3 rd line (RVNL)*	Nil	Nil	Nil	Nil	Nil	1) Lalitpur-Singrauli, (NL)	Nil	Nil		4
	2) Bina-Kota (RVNL)*						2) Ramganj Mandi – Bhopal, (NL)				
	2	0	0	0	0	0	2	0	0		
	28	7	5	2	5	5	31	9	38	16	105

APPENDIX – III (REF. TO PARA NO. 1.4)
STATEMENT SHOWING THE STATUS OF NATIONAL PROJECTS IN NORTH-EASTERN PROJECTS

Sl. No	Name of the project	Month and Year of sanction	Target date of completion		Total anticipated cost (₹ In crore)		Physical progress as of March 2014 (in per cent)
			Original	Revised	Original	Revised	
1	2	3	4	5	5	6	7
1	Kumarghat- Agartala (109 km)	Jul-96	March 2007	March'16	575	1242.25	100 (MG completed). GC yet to be started.
2	Bogibeel Bridge with linking Lines (73 km)	Sept,1997	31.3.06	Dec'16	1000	4996.19	75
3	Jiribam- Imphal (Tupul) (110.625 km)	1.4.2003	31.3.09	March'19	2650	5996	34.04
4	Tetelia- Byrnihat (21.5 km)	1.4.06	31.3.09	Mar'17	208.07	430.33	15.1
5	Dimapur- Kohima (88 km)	1.4.06	31.3.12	Mar'20	887.89	2446.57	0
6	Agartala - Sabroom (112 km)	1.4.08	31.3.12	Mar'17	537.66	1741	29.31
7	Bhairabi- Sairang	1.4.08	31.3.14	Mar'20	512.38	2393.48	10.45
8	Sivok- Rangpo	1.4.08	31.3.14	Not fixed	1329.44	3380.58	2
9	Byrnihat- Shillong	1.4.10	31.3.16	Not fixed	3925.79	Not revised	0
10	Lumding- Silchar Gauge Conversion	July'1996	31.3.06	Mar'16	648	5185.44	87.97
11	Rangia- Murkongselek along with linked fingers line project (510.33 km)	1.4.03	Mar'09	30.3.14	915.70	3319.17	91.83

APPENDIX IV- (REF. TO PARA – 1.6.2)

STATEMENT SHOWING THE STATUS OF PROJECTS (₹150 CRORE AND ABOVE) WHERE PHYSICAL PROGRESS IS 100 PER CENT

Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)		Total Anticipated Cost (₹ in crore)		Rate of Return in percent		Cumulative expenditure till March 2014 (₹ in crore)	Financial progress as of March 2014 (₹ in crore)	Physical progress as of March 2014 (in percentage)	Throw forward (₹ in crore)	Remarks
				Original	Revised	Original	Revised	Original	Original						Revised
New Lines														
ER	Lakshmikantapur - Namkhana Chandanagar	1987-88	1993	N.AV	N.AV.	100.89	546.78	4.40	Not Revised	139.90	25.59	100	404.28	
	MM for a] Kakadwip Budakhali [5km] and	2011-12	Not yet started	N.AV.	N.AV.	61.85		11.00	Not Revised	0.00	0.00	0.00	0.00	Separate expenditure figure for MM not available

Status of Ongoing Projects in Indian Railways – New Line, Doubling and Gauge Conversion

	b] Chandanagar Bakhali [17.2 km]	2011-12		N.AV .	N.AV.	165.35		(-) 9.00						
	Deoghar- Dumka [72.25 km]	1998-99	2003	Not Asses sed in PET Surve y	Feb'2011 (as per MOU dt. 28.2.2012)	180.73	358.55	5.00	Not Revised	390.01	109.00	100	239.83	
ECR	Muzaffarpur- Sitamarhi(63 KM)	1997-98	June, 2002	N.AV	N.AV.	210.79	483.62	(-) 3.72	Not revised	514.88	106.46	100	31.26	Entire section opened on 26.03.13
	Ara- Sasaram (98KM)	1997-98	May, 2002	N.AV	N.AV.	189.14	321.87	4,82	Not revised	319.75	99.34	100	2.12	
	Rajgir -Hasua -Tilaya(46 Km)	2001-02	Jan- 02	N.AV.	N.AV.	180.82	390.00	N.AV.	N.AV.	324.68	83.25	100	65.32	
NR	Abohar- Fazilka (42.17 Km)	1997-98	2002- 03	N.AV	31.07.12	86.44	229.00	(-)7.44	N.AV.	230.84	100.77 %	100	2.26	Work completed & Commissioned in July 2012
	Chandigarh- Ludhiana (112 Km)	1997-98	1998- 99	2005	30.04.13	248.40	1115.21	(-)2.26%	N.AV.	985.35	88.36%	100	114.30	Work completed & Commissioned
NFR	Dudhnoi- Mendipathar (BG) (15.5 km)	1.4.92	1992- 93	Not fixed	March'14	22.33	247.75	Not Done	Not Done	220.68	89.07	100	27.07	Engine rolling done on 29.3.14
	Kumarghat- Agartala (109 km)	Jul-96	1996- 97	Mar' 07	March'16	575	1242.25	(-) 11.98%	Not Revised	955.943	76.95	100	286.307	Section was commissioned with MG and will be commissioned on BG after GC of LMG-SCL - KUGT project

Status of Ongoing Projects in Indian Railways – New Line, Doubling and Gauge Conversion

	Harmoti-Naharlagun (21.75 km)	Feb-97	1996-97	Not fixed	Jan'14	156	406.4	(-)6.37%	(-) 6.38%	406.33	99.98	100	0.07	Work completed and 1st train service ran on 7.4.14
SR	Karur-Salem	1996-97	N.AV	Section already commissioned		229.88	1052.68	19.47	3.73	771.81	335.74	100	31.72	Revised estimate vetted by finance
SER	Howrah-Amta (Inclu. Bargachia-Champadanga)	1974-75	N.AV	Mar-07	Mar-15	31.42	154.3	(-) 0	-	179.37	45.59	100	356.03	Figures shown in col. 13, 14, 15 & 16 are inclusive of MM
	(i) 1st MM: Amta-Bagnan	2009-10	N.AV	Jan-10	Not fixed	103.2	103.2	19.69				3.00		
	(ii) 2nd MM: Champadanga-Tarakeswar	2009-10	N.AV.	April-10	Not fixed	38.73	38.73	(-)40.49				2.00		
	(iii) 3rd MM: Jangipara - F.Sharif	2011-12	N.AV	Dec-14	Not fixed	97.23	97.23	(-) 4.40				1.00		
	Tamluk-Digha	1984-85	N.AV.	Completed		43.73	293.97	2.53/3.02	0.55	456.816	45.08	100	617.64	Figures shown in col. 13, 14, 15 & 16 are inclusive of MM
	(i) 1st MM : Deshpran-Nandigram	2009-10	N.AV.	July-11	June-15	121.44	121.44	-				30.00		
	(ii) 2nd MM:Kanthi-Egra	2011-12	N.AV	June-15	June-15	247.28	247.28	(-)4.60				2.00		
	(iii) 3rd MM:Nandigram - Kandiamari	2012-13	N.AV	Not fixed		275.14	275.14	-				1.00		

Status of Ongoing Projects in Indian Railways – New Line, Doubling and Gauge Conversion

	(iv) 4th MM: Nandakumar - Balaipanda	2012-13	N.AV	Not fixed		75.91	75.91	-				1.00		
Total						3276.35	7801.31			5896.36			2178.20	
CR	Latur-osmanabad kurduwadi miraj guage conversion(37 4 Kms)	93-94	1993	Not fixed	NA	225.00	950.00	4.60%	N.AV.	970.24	120.00	100	9.47	
ECR	Manasi - Saharsa- Dauram Madhepura - Purnia(143 Km)	1996-97	May-97	Target date not fixed		48.39	477.89	11.57	Not revised	456.14	95.45	Manasi - Saharsa - Dauram Madhepura - 100% - Dauram Madhepura- Purnia - 80%	21.75	Section from mansi to Banmankhi has already been opened for passenger traffic. As on the date of review.
NER	Aunrihar- Jaunpur	Jan-04	2004	NA	NA	83.37	175.77	6.1	NA	172.75	98.29	100	3.01	
NFR	Lumding- Dibrugarh including link branch lines of Haibargaon- Mairabari & Senchoa- Silghat (56)	1.4.93	1993-94	Not fixed	Completed in Dec'09	442.93	971.22	(-)8.24%	Not Revised	833.47	85.82	100	137.75	All 3 phases Completed and commissioned upto Dec'09

Status of Ongoing Projects in Indian Railways – New Line, Doubling and Gauge Conversion

	Aluabari Road- Siliguri (76 km)	1.4.06	2006-07	31.9.08	Completed	190.46	485	(-) 17.60%	(-) 4.58%	417.49	86.08	100	67.51	Work completed and hand over to Open Line in Oct'11
NWR	Ajmer-Chittaurgarh-Udaipur (300 km), incl. material modifications for extension from Udaipur to Umra (11 km) and Mavli Jn.-Bari Sadri (82.01 km)	1996-97	Nov-99	Not made Available	Not Applicable	566.00	855.16	(+)14.05	not revised	557.65	65.21	100	297.51	
	<i>Sri Ganganagar-Sarupsar Canal Loop (Phase-I) (116 km)</i>	<i>2003-04</i>	<i>2003</i>	<i>31.03.11</i>	<i>not revised</i>	<i>106.09</i>	<i>279.59</i>	<i>(-)13.25</i>	<i>not revised</i>	<i>241.39</i>	<i>86.34</i>	100	<i>38.2</i>	<i>No Remarks</i>
	Sadulpur-Bikaner & Ratangarh-Degana (394.35 km)	2007-08	Mar-08	not fixed	Not Applicable	643.36	872.22	(-)2.44	not revised	787.75	90.32	100	84.47	No Remarks
SR	Madurai-Rameswaram	1997-98	N.AV	N.AV. (Section already commissioned)		246.97	441.69	3.458	NO	369.80	149.73	100	75.35	
	Thanjavur-Villupuram	1998-99	N.AV	N.AV. (Section already commissioned)		356.88	665.01	14.980	9.226	121.99	34.18	100	541.2495	
	<i>Trichy-Manamadurai</i>	<i>2000-01</i>	<i>N.AV.</i>	<i>N.AV. (Section already commissioned)</i>		<i>202.32</i>	<i>410.00</i>	<i>12.790</i>	<i>NO</i>	<i>394.34</i>	<i>194.91</i>	100	<i>40.97</i>	

Status of Ongoing Projects in Indian Railways – New Line, Doubling and Gauge Conversion

	Villupuram-Katpadi	2000-01	N.AV	N.AV. (Section already commissioned)		231.72	780.00	0.441	NO	637.55	275.14	100	297.3197	
	Manamadurai - Virudhunagar	2006-07	N.AV.	N.AV. (Section already commissioned)		138.03	231.58	14.416	8.62	199.80	144.75	100	39.71	
SCR	Guntur-Guntakal-Kalluru	1992-93	04/20 07	31-12-2000	31-03-2015, 31-03-2016	N.AV.	699.47	N.AV.	N.AV.	594.71	85.02	100	104.76	
	Mudkhed – Adilabad	1995-96	09/20 02	31-03-2004	3/31/2016	199.06	356.20	No ROR made	No ROR made	321.91	90.37	100	34.29	
	Dharmavaram-Pakala	1997-98	10/20 03	N.AV.	31-03-2014, 31.3.2016	294.99	704.11	4.49	21.59	658.86	93.57	100	45.25	*ROR on completion is 8.23
SER	Rupsa-Bangiposi	1995-96	N.AV	Completed		50.54	178.76	2.46	0.00	176.86	29.28	100	1.9	Figures shown in col. 13, 14, 15 & 16 are inclusive of MM
	Bankura - Damodar Valley	1998-99	N.AV	Completed		111.9	194.5	(-) 0.71	0.00	479.9	46.22	100	943.63	Figures shown in col. 13, 14, 15 & 16 are inclusive of MM
	(i) 1st MM: Rainagar - Masagram	2002-03	N.AV.	Dec-08	Completed	46.255	144.36	(-)238.48	-			100		
WR	Bharuch-Samni-Dahej (62.36 KM)	2006-07	not available	Aug-10	Sep-11	165.60	332.00	9.20%	9.20%	0	0.00%	100	332.00	Executed by RVNL.
Total						4349.87	10204.53			8392.60			3116.11	
ER	Sonarpur-Canning	2000-01	2002	N.AV.	N.AV.	30.47	274.47	(-) 10.00	Not Revised	52.87	174.00	100	222.67	

Status of Ongoing Projects in Indian Railways – New Line, Doubling and Gauge Conversion

	[14.96 km]													
	Kalinarayanpur-Krishnanagar	2000-01	2003	N.AV.	N.AV.	43.39	945.29	(-) 21.00	Not Revised	228.87	74.00	100	733.31	kalinarayanpur - Krishnanagar has been commissioned
	a)Krishnanagar-Shantipur [12 km] -GC , b) Krishnanagar-Chartala [13 km] - NL, c) Naihati-Ranaghat -3rd line, d) Nabadwipghat-Nabadwipdham with extn. To BB Loop [9.58 km]	a) & b) 2001-02, c) 2008-09, d) 2010-11	a) & b) 2006 c) 2010 d) Not yet started	N.AV.	N.AV.	651.01		a) (-) 23.00 b) (-) 13.00 c) (-) 16.00, d) (-) 17.00	Not Revised	N.AV.	0.00	100% for [a]	0.00	a) Krishnanagar - Shantipur -GC commissioned
	Chandpara-Bongaon	2003-04	2006	N.AV.	N.AV.	22.23	186.88	a) less than 1.00	Not Revised	71.46	38.00	100	127.77	Chandpara-Bongaon Section commissioned on 24.07.2012
	Pandabeswar-Chinpai [21.41 km]	2004-05	2007	N.AV.	N.AV.	75.55	292.16	11.00	Not Revised	133.79	46.00	100 % for a only	147.65	Pandabeswar-Chinpai has been commissioned 01.03.2011
	Chinpai-Sainthia	2005-06	2008	N.AV.	N.AV.	86.66	590.91	11.00	Not Revised	121.31	21.00	100	496.22	a) Chinpai-Sainthia has been commissioned on 17.5.2010

Status of Ongoing Projects in Indian Railways – New Line, Doubling and Gauge Conversion

	Ghutiari Sharif-Canning with extension upto Bangankhali	2009-10	2011	N.AV.	N.AV.	189.97	189.97	(-) 15.00	Not revised	134.00	71.00	100 % for a only	60.54	a] Ghutiari Sharif-Canning has been commissioned
	<i>MM for a] Bhangankhali - Basanti [14.2 km] & b] Basanti-Jharkhali [23 km] - NL</i>	<i>2011-12</i>	<i>Not yet started</i>	<i>N.AV.</i>	<i>N.AV.</i>	<i>421.06</i>		<i>a] & b] (-) 15.00</i>	<i>Not revised</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	
ECR	Chapra-Hajipur (59 KM)	1999-2000	Feb,2002	N.AV.	N.AV.	72.43	192.22	17.77	N.AV.	169.40	88.13	100	22.82	Section handed over to open line on 30.07.2007
	<i>Begusarai-Khagaria Doubling (40.38 Km)</i>	<i>2005-06</i>	<i>Mar-2006</i>	<i>N.AV.</i>	<i>N.AV.</i>	<i>105.57</i>	<i>194.71</i>	<i>14.00</i>	<i>Not Revised</i>	<i>160.85</i>	<i>82.61</i>	<i>100</i>	<i>33.86</i>	<i>Section handed over to open line on 21.02.12</i>
NR	Hapur-Kankather (42.71 Km)	2003-04	2003-04	N.AV.	N.AV.	106.64	166.60	19.76	Not Revised	164.69	95.85%	100	3.18	
NFR	<i>New Guwahati-Digarupatch Doubling (29.81 km) (Phase-I)</i>	<i>1.4.07</i>	<i>2007-08</i>	<i>Not fixed</i>	<i>Completed</i>	<i>99.84</i>	<i>182.9</i>	<i>NA</i>	<i>(+) 8.97%</i>	<i>147.01</i>	<i>80.37</i>	<i>100</i>	<i>35.89</i>	<i>Completed and commissioned on 28.9.11</i>
NWR	Jaipur-Dausa (61.28 km)	2005-06	Nov-06	31.12.09	31.03.10	148.38	207.5	(+)18.55	not revised	209.16	100.8	100	2.89	No Remarks
SR	Calicut-Mangalore	1995-96	N.AV.	N.AV. (Section already commissioned)		579.37	621.01	13.430	NO	597.61	103.15	100	20.68	

Status of Ongoing Projects in Indian Railways – New Line, Doubling and Gauge Conversion

	Madurai-Dindugul	2003-04	N.AV	N.AV. (Section already commissioned)		128.56	261.95	20.718	No	228.59	177.81	100	40.50	
SCR	Gudur - Renigunta & Renigunta - Tirupati	1997-98	02/2000	31-12-2000	31-03-2003, 31-03-2013	133.33	194.18	N.AV.	N.AV.	190.76	98.24	100	3.42	
SEC R	Bilaspur-Urkura (110Km)	1997-98	1997-98	31.07.14	-	270.65	271.34	Not Available	Not Available	274.76	0.00	100	271.34	
Total						3165.11	4772.091			2885.12			2222.74	
G. Total						10791.33	22777.93			17174.09			7517.05	

APPENDIX IV- (REF. TO PARA 1.6.2)
STATEMENT SHOWING THE STATUS OF PROJECTS (LESS THAN ₹150 CRORE) WHERE PHYSICAL PROGRESS IS 100 PER CENT

Zonal Railways	Name of the project	Month and Year of sanction	Basis of sanction (1- Socio-economic consideration and 2- other than socio-economic	Month and year of commencement of project	Target date of completion		Total anticipated cost (₹ in crore)		Rate of Return		Cumulative expenditure till March 2014 (Rs. in crore)	Financial progress as of March 2014 (in percentage)	Physical progress as of March 2014 (in percentage)	Throw forward (₹ in crore)	Remarks
					Original	Revised	Original	Revised	Original	Revised					
New Lines															
CR	Puntamba shirdi (16.40)km	2000-01	1	2000	N.AV	N.AV.	30.22	98.13	5.80%	N.AV.	91.5	100.00	100	9.77	
NWR	Ajmer-Pushkar (31.04 Km)	2000-01	2	06/2004	28.02.09	28.02.11	88.40	135.00	-3.40	not revised	133.18	98.65	100	1.82	
	Bangurgram-Ras (27.8 km)	2008-09	2	06/2011	not fixed	N.A.	144.67	144.67	18.70	not revised	139.34	95.62	100	5.33	

Status of Ongoing Projects in Indian Railways – New Line, Doubling and Gauge Conversion

SCR	Vishnupur am-Janpahad	2006-07	2	01/2009	31-03-2011	31-03-2016	52.56	65.24	34.26	Not revised	67.06	102.79	100	1.82	
Total							315.85	443.04			431.08			18.74	
Doubling															
CR	Divya-Kalyan Doubling of 5th & 6th line	1999-2000	2	2000	N.A.V.	N.A.V.	47.70	231.55	N.A.V.	N.A.V.	77.11	100.00 %	100.00 %	151.54	
	Panvel-Jasai-Jawaharlal Nehru Port Trust (28.5 Km)	2000-01	2	2002	N.A.V.	N.A.V.	48.00	106.00	N.A.V.	N.A.V.	22.85	100.00 %	100.00 %	83.07	
ER	New Alipore-Akra	1996-97	2	2000	N.A.V.	N.A.V.	18.09	126.17	(-) 17.00%	Not Revised	31.15	25.00	100.00	93.69	commissioned on 13.9.04

Status of Ongoing Projects in Indian Railways – New Line, Doubling and Gauge Conversion

	MM for a)Budge Budge-Pujali b) Pujali-Uluberia[Birshivpur] [10.25 km] & c) Pujali--Bahrahat [9.75 km]-NL	a] 2009-10, b]&c} 2011-12	1	Not yet started	N.AV.	N.AV.	476.49		a] (-) 16.00%, b] (-) 17.00%, c] (-) 20.00%	Not Revised	0.00	0.00	476.49		
	Habra-Bongaon Ph-I [Habra-Chandpara]	2000-01	2	2002	N.AV.	N.AV.	40.89	145.12	Less than 1.00%	Not Revised	71.94	50.00	100.00	69.16	
	MM Machlandapur-Swarupnagar	2009-10	1	Not yet started	N.AV.	N.AV.	104.24		(-) 14.00%	Not Revised	0.00	0.00	0.00	104.24	
	Barasat-Sondalia [12.12 km] Ph-1 of Barasat Hasnabad Section	2000-01	2	2002	N.AV.	N.AV.	23.65	59.17	Negative	Not Revised	43.90	74.00	100.00	1.51	commissioned on 04.5.12
	Bandel-Jirat of Bandel-Katwa Section	2001-02	2	2002	N.AV.	N.AV.	51.55	110.24	(-) 8.30%	Not Revised	114.87	104.00	100.00	0.60	commissioned on 08.2.11

Status of Ongoing Projects in Indian Railways – New Line, Doubling and Gauge Conversion

	Baruipur-Mograhat [15 km]	2000-01	2	2002	N.A.V.	N.A.V.	30.09	52.70	(-) 11.00%	Not Revised	53.03	101.00	100.00	3.26	commissioned on 5.8.11
	Kajra-Kiul [15.85 km]	2002-03	2	2004	N.A.V.	N.A.V.	23.76	46.68	6.50%	Not Revised	32.98	71.00	100.00	14.44	commissioned
	Barharwa-Tinpahar [16.49 km]	2003-04	2	2005	N.A.V.	N.A.V.	41.13	79.00	1.00%	Not Revised	46.32	59.00	100.00	4.50	commissioned
	Jirat-Ambika Kalna [20.23 km]	2009-10	2	2011	N.A.V.	N.A.V.	98.14	139.50	(-) 4.00%	Not Revised	121.50	87.00	100.00	16.99	commissioned
	Nalikul - Tarakeswar [17.18 km]	2009-10	2	2011	N.A.V.	N.A.V.	113.33	113.33	(-) 10.00%	Not Revised	60.98	54.00	100.00	25.33	commissioned
ECR	Tarengna-Jehanabad (15.20 KM)	2003-04	2	June,2004	section commissioned		46.00	93.44	N.A.V.	N.A.V.	83.80	89.68	100.00	9.64	Ist revised estimate sanctioned by GM/ECR on 06.06.14
	Mansi-Maheskhu nt Patch Doubling(22.12 KM)	2005-06	2	N.A.V.	section commissioned		127.07	127.07	N.A.V.	N.A.V.	18.15	14.28	100.00	108.92	

Status of Ongoing Projects in Indian Railways – New Line, Doubling and Gauge Conversion

	Jehanabad-Bela (27.47 KM)	2005-06	2	Feb-09	section commissioned		127.07	185.77	N.A.V.	N.A.V.	142.17	76.53	100.00	43.60	
	Maheshkhunt-Thana-Bihpur (31.75 Km)	2005-06	2	Feb-06	section commissioned		68.75	134.86	14.00	Not Revised	117.31	86.99	100.00	17.55	
	Thana-Bihpur Kursela Doubling (33.57Km)	2005-06	2	May,2006	section commissioned		105.57	68.6	14.00	Not Revised	51.95	75.73	100.00	16.65	
	Tilrath - Begusarai Doubling (8.33 Km)	2005-06	2	May,2006	section commissioned		37.65	37.65	55.00	Not Revised	18.43	48.94	100.00	19.22	
NER	Ghagharaghat-Chaukaghat	Feb-06	2	2007	31.10.12	N.A.V.	82.64	130.92	16.17	N.A.V.	102.92	78.61	100.00	28.01	
NWR	Dausa-Bandikui (29.04 Km)	2006-07	2	04/2008	30.06.2010	not revised	81.00	101.84	26.02	not revised	101.81	99.97	100.00	0.04	
	Alwar-Harsauli (34.86 km)	2007-08	2	10/2008	31.10.2010	not revised	90.79	91.59	20.87	not revised	78.62	85.84	100.00	12.98	

Status of Ongoing Projects in Indian Railways – New Line, Doubling and Gauge Conversion

	Harsauli-Rewari (39.35 km)	2007-08	2	11/2008	31.12.2010	not revised	99.44	133.75	21.66	not revised	135.42	101.25	100.00	1.67	
SR	Irugur-Coimbatore	1996-97	2	N.A.V.	Section already commissioned	38.66		120.00	24.85	No	96.58	249.82	100.00	12.09	
	Cheppad-Kayankulam	2003-04	2	12/2005	31-05-2009	04/01/12 commissioned	26.24	68.74	-2.86	No	41.11	156.67	100.00	22.73	ROR was same for three projects since they are in the same stretch.
	Mavelikara-Chengannur	2003-04	2	06/2005	31-05-2009	22/10/12 commissioned	48.34	119.49	5.10	No	117.07	242.18	100.00	11.48	
	Cheppad-Haripad	2003-04	2	12/2005	30-06-2008	04/01/12 commissioned	17.37	40.02	-2.86	No	32.26	185.72	100.00	29.20	
SECR	Bilaspur-Salka Road-Patch Doubling (39.4Km)	2004-05	2	2004-05	N.A.V.		-140.68	144.19	20.7	24.35	106.98	71.00	100.00	144.19	
	Cph-Bypass line	2007-08	2	2007-08	Dec'10		-38.86	42.93	17.96	N.A.V.	36.18	157.93	100.00	42.93	

Status of Ongoing Projects in Indian Railways – New Line, Doubling and Gauge Conversion

	APR-Bypass line	2007-08	2	2007-08	15.05.10		- 18.42	21.01	22.66	N.AV.	21.73	66.00	100.00	21.01	
	Bhilai-Durg 3rd line(13.15 Km)	2005-06	N.AV	2005-06	N.AV.		- 61.53	61.53	N.AV.	N.AV.	65.19	108.00	100.00	61.53	
WR	Akodia-Mom.Khera-Shujalpur Patch 13.15 Km	2003-04	2	Feb-05	30-06-2010	Not revised	34.39		11.17%	11.17%	53.69	156.12 %	100.00 %	1648.2641	
Total							2389.44	2932.8611			2097.9919			3296.5282	
G.Total														3315.27	

APPENDIX – V (REF. TO PARA NO.1.6.3)

DELAY IN COMMENCEMENT/NON-COMMENCEMENT

Sr. No.	Name of project	Zonal Railway	Year of sanction	Year of commencement
	New Line			
1.	Bariarpur-Mananpur via Kharagpur, Lachmipur-Barhat	ER	2007-08	Not yet started
2.	Chandigarh- Baddi	NR	2007-08	Not yet started
3.	Kotipalli-Narsapur	SCR	2000-01	Not yet started
4.	Macherla-Nalgonda	SCR	1997-98	Not yet started
5.	Manoharabad-Kothapalli	SCR	2006-07	Not yet started
6.	Bangalore – Satyamangalam	SWR	1997-98	Not yet started
	Gauge Conversion			
1.	Akola – Khandwa	SCR	2008-09	Not yet started
2.	Ahmedabad-Himmatnagar-Udaipur	WR	2008-09	Not yet started
3.	Bhuj-Naliya	WR	2008-09	Not yet started

4.	Miyagam-Karjan-Dabhoi-Samlaya	WR	2011-12	Not yet started
5.	Ahmedabad-Botad	WR	2012-13	Not yet started
6.	Dhasa-Jetalsar	WR	2012-13	Not yet started
	Doubling			
1.	Wardha (Sewagram) – NGP (3 rd line)	CR	2012-13	Not yet started
2.	Kalyan Kasara – 3 rd line	CR	2011-12	Not yet started
3.	Princep Ghat-Majerhat	ER	2011-12	Not yet started
4.	Bazar Sau-Azimganj Jn.	ER	2012-13	Not yet started
5.	Monigram-Nimtita	ER	2012-13	Not yet started
6.	Rani Marwar Jn.-patch doubling	NWR	2012-13	Not yet started
7.	Bangurgram-Guriya patch doubling	NWR	2012-13	Not yet started
8.	Ajmer-Bangurgram	NWR	2011-12	Not yet started
9.	Mudhked-Parbhani	SCR	2011-12	Not yet started
10.	Torangallu-Ranjithpura	SWR	2011-12	Not yet started
	Total = 22 (NL-6, GC-6, DL-10)			

APPENDIX – VI (REF. TO PARA -1.6.7.1 AND 1.6.7.2)						
STATEMENT SHOWING VARIATION ABOVE 100 PER CENT BETWEEN DETAILED ESTIMATE AND REVISED ESTIMATE						
Sl. No.	Zonal Rlys.	Category of Work (New Line, Gauge Conversion and Doubling)	Name of the Projects	Cost as per detailed estimate (₹ In crore)	Cost as per revised estimate (₹ In crore)	Variation between detailed estimate (Original and revised estimate) (in per cent)
2	3	4	5	6	7	
1	CR*	NL	(1) Ahmednagar-Beed-Parli Vajjnath	514.68	2819.88	447.89
2			(2) Belapur-Seawood-Uran Electrified Double Line.	495.44	1814.1	266.16
3	ER	NL	Dumka-Rampurhat (Phase II of Rampurhat-Mandarhill via Dumka project)	143.71	450.81	213.69
4	ECR	NL	(1) Const. of Rly. Bridge over River Ganga at Munger.	815.45	2361.87	289.64
5			(2) Patna Ganga Bridge with linking between Patna & Hajipur. (19 KM)	624.47	2921.46	467.83
6			(3) Giridih- Koderma (Phase-I)150 Km	371.36	768.88	207.04
7			(4) Koderma - Ranchi (189 Km)	1033	2957.11	286.26
8	ECoR	NL	(1) Khurda Road-Bolangir New Line (289 Kms)	92.78	191.00	106.00
9	NR	NL	(1) Nangaldam-Talwara	257.81	1036.78	302.15
10			(2) USBRL	3077.230	19564.83	535.79
11			(3) Rewari-Rohtak	194.83	901.55	362.74
12			(4) Bhanupalli-Bilaspur	1046.88	2966.98	183.41
13			(5) Deoband-Roorkee	160.01	336.92	110.56
14	NCR	NL	(1) Agra-Etawah	108.00	427.21	295.56
15			(2) Bhind-Etawah (Part of Guna-Etawah Project)	92.54	384.04	314.99
16	NER		(1) Maharajgang-Masarakh-Rewa Ghat	134.42	504.92	275.63

Status of Ongoing Projects in Indian Railways – New Line, Doubling and Gauge Conversion

17	SR*	NL	(1) Angamali-Sabarimala	517.17	1566.00	203.00
18	SCR	NL	(1) Nandyal-Yerraguntla	164.36	883.00	437.24
19			(2) Gulbarga-Bidar	369.70	844.15	128.33
20			(3) Cuddapah-Bangalore	1000.23	2050.00	104.95
21			(4) JPTN-MACU with MM for MACU-Janpahad	65.95	313.24	374.97
22			(5) Peddapalli-Nizamabad	407.79	925.30	126.90
23	SWR		(1) Bangalore-Hassan via Shravanbelagola (166 kms)	412.91	1289.92	212.40
24			(2) Hubli-Ankola (167 kms)	997.58	2315.00	132.06
25			(3) Kadur-Chickmagalur-Sakaleshpur (93Kms)	69.15	244.79	151.79
			(i) Kadur-Chickmagalur-Sakaleshpur (93Kms) Part -II Estimate - Phase I (Kadur- Chickmagalur)	104.96		
			(ii) Kadur-Chickmagalur-Sakaleshpur (93Kms) Part -I Estimate - Phase II (Chickmagalur-Sakaleshpur)	88.71	644.78	626.84
26	ECR	GC	(1) Sakri-Laukha bazar-Nirmali-Saharsa-Forbesganj(206.06KM)*	372.14	1250.9	207.04
27			(2) JayNagar - Darbhanga- Narkatiaganj (268 KM)	324.73	1043.56	321.36
28	NFR	GC	(1) Lumding- Silchar including alignment between Migrendisa- Ditokchera and extension from Badarpur to Baraigram, M.M Baraigram- Dulabcherra (29.4 km) and Karimganj	1676.76	5185.44	209.25
29			(2) Katihar- Jogbani (108 km) & Barsoi- Radhikapur (54.26 km), M.M Raiganj-Dalkhola (43.43 km) NL	489.13	1022.64	109.07
30	SECR	GC	Jabalpur-Gondia incl. Balaghat-Katangi(285 km)	511.86	1157.54	126.14
31	ECoR	DL	Jharsuguda - Rengali Doubling (25.60 Kms)	91.41	201	120
32	NR	DL	NDLS-Tilak Bridge 5th & 6th line	33.74	138.46	317.33
			32 (NL-25, GC-5, DL-2)			

Note: * Zonal Railways where no feasibility study and engineering cum traffic survey was conducted.

APPENDIX – VII (REF. TO PARA NO. 1.6.7.1)

STATEMENT SHOWING THE DETAILS OF PROJECTS WHOSE ESTIMATES WERE PREPARED AND SUBMITTED BELATEDLY

Sl. No.	Zonal Railways	Name of project	Year of inclusion in Budget/Sanction	Date of submission of Detailed Estimate	Delay in terms of years
1.	CR	Ahmednagar-Beed-Parli Vajjnath (NL)	1995-96	April – 2004	8
2.	CR	Wardha-Nanded (via Yavatmal-Pusad) – (NL)	2008-09	June - 2014	6 year 2 month
3.	ECR	Const. of Rly. Bridge over River Ganga at Munger (NL)	1997-98	March – 2008	10 year
4.	ECR	Giridih- Koderma (Phase-I) – NL	1996-97	May – 2002	5 year 2 month
5.	ECoR	Khurda Road-Bolangir (NL)	1994-95	June – 2001	7 year 2 month*
6.	SR	Angamali-Sabarimala (NL)	1997-98	Sept. – 2004	6 year 6 month
7.	SCR	Gulbarga-Bidar (NL)	1997-98	January – 2003	5 year 8 month
8.	SER	Tamluk-Digha (NL)	1984-85	January – 2000	15 year
9.	SECR	Dallirajhara-Jagdapur (NL)	1995-96	July – 2014	18 year 1 month #
10.	SWR	Bangalore- Sathyamangalam (NL)	1997-98	Nov. – 2013	16 year 7 month
11.	SWR	Munirabad-Raichur (NL)	2007-08	July - 2012	5 year 3 month
12.	WCR	Ramganj Mandi- Bhopal (NL)	2000-01	August – 2007	6 year
13.	ECR	Jay Nagar - Darbhanga-Narkatiaganj (GC)	1997-98	April – 2002	5 year 1 month
14.	SR	Cuddalore-Salem via Vriddachalam (GC)	1999-2000	March – 2001	5 year 6 month

Note: Detailed Estimate not submitted till March 2014. * This is for Part estimate for 36 Km. Detailed estimate for the entire project was not prepared.

APPENDIX – VIII (REF. TO PARA NO. 1.6.7.3)

BRIEF RESULTS OF HIGH PRIORITY PROJECTS

1. Wardha-(Sevagram)-Nagpur-3rd line (Doubling) - (Central Railway)

The project was sanctioned during 2012-13, with an original cost of ₹ 297.85 crore on the ground to connect the Northern, Central and South regions of the country. The estimated ROR of this project was 15.18 *per cent*. The cumulative expenditure on the project as on March 2014 was ₹ 3.90 crore. The project is yet to commence. Even the target date for completion of the project has not been fixed.

2. Rampurhat-Muraroj New Line Project (Eastern Railway)

The project with ROR of (-) 11*per cent* was sanctioned as Material Modification (MM) to the Rampurhat-Manderhill New Line Project in the year 2011-12 at an anticipated cost of ₹ 224.05 crore on the ground to development and advancement to the people of backward areas of Santhal Parganas region. The sanction of a fresh New Line project as MM to an ongoing project was not in compliance with the Para 1110 of Engineering Code. Moreover, the project involving cost of more than ₹ 100 crore had no Cabinet Committee of Economic Affairs (CCEA) approval. Although about 3 years already elapsed from the date of sanction, the work has not been commenced yet. The detailed estimate sanctioned on 24.10.2014 targeted for completion in March 2018.

3. Tinpahar-Sahibganj Doubling Project (Eastern Railway)

The project with ROR of 11.20 *per cent* was sanctioned in 2009-10 at an estimated cost of ₹ 182.56 crore. The objective of the project was to cater augmentation of traffic by doubling. The detailed estimate was sanctioned in March 2010 and work commenced in 2011. With the incurrence of ₹ 84.96 crore the physical progress upto March 2014 was 30 *per cent*. After declaring High Priority the target date for completion of the project has been set as December 2015.

4. Sahibganj- Pirpainti doubling project (Eastern Railway)

The project having ROR of 12 *per cent* was sanctioned in the year 2010-11 at an anticipated cost of ₹ 129.45 crore on commercial ground. The detailed estimate was sanctioned in May 2010 and work was commenced in 2012. With the incurrence of ₹ 60.76 crore the physical progress upto March 2014 was 55 *per cent*. After declaring High Priority the target date for completion of the project has been set as December 2014.

5. Pirpainti-Bhagalpur Doubling Project (Eastern Railway)

The Pirpainti-Kahalgaon doubling project is a section of Pirpainti-Bhagalpur which was sanctioned in 2011-12 at an estimated cost of ₹ 332.14 crore. The project with ROR of (-) 8 *per cent* was considered on socio-economic development basis. The detailed estimate was sanctioned in March, 2012 and the work was commenced in 2013. There was no physical progress of the project after incurring expenditure of ₹ 13.05 crore upto March 2014. After declaring High Priority the target date for completion of the project has been set as 2015-16. In 2014-15, only ₹ 5 crore as against the required fund of ₹ 40 crore has been allotted to the project.

6. Sainthia-Tarapith 3rd line project (DL) (Eastern Railway)

The project having ROR of 16 *per cent* was sanctioned in the year 2011-12 at an anticipated cost of ₹ 186.64 crore with the objective to cater for the freight and passenger transport requirements (Commercial ground). After incurring expenditure of ₹ 15.84 crore upto March,2014 the project could achieve no physical progress and outlay for the project from 2012-13 to 2013-14 was ₹ 45 crore. It was reported by Zonal Railway that the slow progress of the project was due to shortage of fund.

7. Tarapith-Rampurhat 3rd line project (DL) (Eastern Railway)

The project having ROR of 16 *per cent* was sanctioned in the year 2012-13 at an anticipated cost of ₹ 56.30 crore on commercial ground. The detailed estimate was sanctioned on 11.02.2013 and after incurring expenditure of ₹ 1.31 crore upto March 2014 the project could achieve no physical progress. Although categorized as High Priority only ₹ 4 crore has been allotted to the project in the year 2014-15 and no commissioning target has been fixed in the years 2014-15 and 2015-16. The commissioning has been targeted in the year 2016-17. However, the preliminary works like Earthwork and Blanketing works have not been started yet.

8. Hajipur-Ramdayalu Nagar Doubling Project (East Central Railway)

The construction of double Line from Hajipur to Ramdayalu Nagar was conceptualized to remove traffic bottlenecks in the section and to ensure the smooth flow of traffic. Ist part detailed estimate of the project was sanctioned at a cost of ₹ 96.16 crore in August, 2013. Subsequently the detailed estimate of the project was sanctioned at a cost of 367.17 crore. A total of ₹ 0.05 crore was incurred on the project and the physical & financial progress of the project was 0 & 0.01 *per cent* respectively as on 31st March, 2014. The project is targeted to complete by 31.12.2018.

9. Garhwa Road - Ramna Road (DL) (East Central Railway)

The project was conceptualized to tap the mineral resources of the area and to ease out the traffic constants of the existing single line. The rate of return (ROR) of the project was assessed at 36 *per cent*. The detailed estimate at a cost of ₹363.52 Crore is under approval. The project is targeted to complete by 31.12.2017.

10. Jharsuguda-Rengali (DL) (East Coast Railway)

Jharsuguda- Rengali doubling (25.6 Km) was taken up in 2005-06 in consideration of growth of traffic in Jharsuguda-Sambalpur section (48.656 Km). The line connects HWH-Mumbai main line with industrial belt developed around Jharsuguda- Sambalpur-Angul section. The RoR of the project was initially 14.28 *per cent* which was revised to 27.36 *per cent* for the entire section from Jharsuguda to Sambalpur.

11. Utretia-Zafrabad doubling project including Material Modification - (Northern Railway)

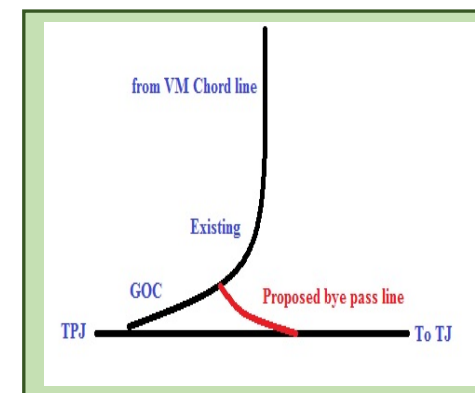
The project was sanctioned in the year 2006-07 with an object to increase the line capacity. The project was proposed for completion by March 2009. The detailed estimate for this work was sanctioned at a cost of ₹ 369.90 crore in July-2006. The abstract cost of ₹ 301 crore has escalated to ₹ 1565 crore as per revised detailed estimate (proposed in August 2014) including MMs. Inclusion of three MMs of ₹ 734.18 crore in the original work of Doubling increased the cost of project. The project which was sanctioned seven years ago was having a mearge 27.5 km out of 148 km physical progress and no target was set for completion of the project.

12. Lumding-Silchar (GC) (North East Frontier Railway)

The National project “Lumding-Silchar (LMG-SCL) Gauge Conversion Project” which was originally sanctioned for ₹ 648 crore was revised to ₹5185.44 crore in 2014 with the objective to cater the traffic demand in the states of Assam, Manipur, Mizoram and Tripura (On socio-economic ground). The increase in project cost inter-alia included the revision in the scope of works, escalation and inclusion of five branch lines as a Material Modification with sanctioned cost of ₹ 480.12 crore to the project since 2000. Lumding- Silchar section was, however, flagged off by the Minister for Railways from New Delhi on 27 March 2015. The section was not allowed (30 March 2015) to open to passenger traffic by the Commissioner of Railway Safety (CRS) due to non-compliance rules for Railways for Public Carriage of Passenger and BG SOD, 2004 and the same was, however, condoned by the Railway Board. No inspection was done by CRS for 100 Km (out of 215Km).

13. Thanjavur-Ponmalai Doubling project with bye-pass line before Ponmalai (Goldenrock) - (Southern Railway)

This project was sanctioned during 2011-12 at an estimated cost of ₹ 434.62 crore to improve the line capacity of the section and also to meet the future requirements. Locos and brake vans of freight trains going from Thanjavur to Chord line and vice versa, had to be reversed at Ponmalai resulting in detention of minimum 90 minutes per train at Ponmalai due to turnaround of Locos and Brake vans. Locos of coaching trains were also detained due to crossings. The bye-pass line before Ponmalai was proposed to remove this detention. Operational savings to the extent of ₹ 5.39 crore *per annum* were expected to materialize due to avoidance of crossings to trains, both coaching and goods, along with elimination of engine reversal to freight trains at Ponmalai.



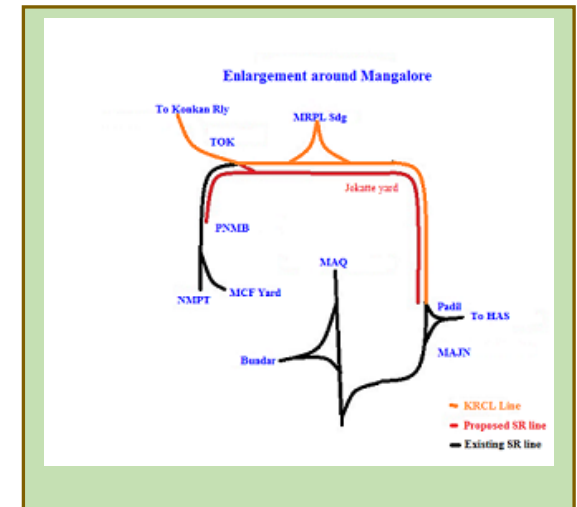
- The Bye-pass line work was commenced in September 2012 and the civil engineering work was completed (March 2014). Electrical and Signal & Telecommunication work was handed over to RVNL (Rail Vikas Nigam Limited). These works were yet (March, 2014) to be completed.

- The doubling work between Thanjavur and Ponmalai was handed over (January 2014) to RVNL for execution. The work is yet (March, 2014) to be taken up.

Though, “High Priority” was assigned to this work by RB, no target date was fixed for completion of the work. An expenditure of ₹ 29.92 crore had been incurred (March 2014) and the physical progress achieved (March 2014) was three *per cent* since two years of sanction of the project. Land to the extent of two hectares was yet to be acquired for the project. The throw-forward of the project was ₹ 150.10 crore. The non-completion of Thanjavur-Ponmalai bye pass line delayed the realization of projected operational savings.

14. Kankanadi-Panambur Patch Doubling (Southern Railway)

Kankanadi-Panambur is a single line section (19.34 Km) in the Mangalore-Panambur section. The detailed estimate was sanctioned (February 2009) at an estimated cost of ₹ 149.20 crore with ROR of 29.26 *per cent* to augment the line capacity of Mangalore – Panambur section. An additional line was proposed from Jokatte yard to Panambur as a material modification which was to eliminate operational constraints in obtaining permission from KRCL for passing Tokkur yard. Thus the work was expected to eliminate detention to rolling stock. The work commenced (January 2009) after a delay of around two years from sanction and the physical progress (March 2014) was 13 *per cent* after over five years of its commencement. The throw-forward expenditure of the project was ₹105.51 crore. The work was progressing slowly due to heavy yard work and tunnel works. No target date was set for completion of the project.



15. Kazipet- Vijayawada (3rd line) (South Central Railway)

The project was sanctioned in the year 2012-13 at an anticipated cost of ₹1054.35 crore with an expected Rate of Return (ROR) at 19.97 *per cent* . The line was taken up to improve capacity constraints and to facilitate to connect Chennai-Delhi, SC 3rd line proposed to increase line capacity. The project was identified as High priority project by Railway Board. The work was taken up in phases as detailed below:

(a) **Kondapalli- Vijayawada** (17.49km) Part Detailed estimates for ₹163.50 crore sanctioned by Railway Board in August 2014. Only S&T works are under progress and Civil Engineering works have not been commenced as land acquisition is in progress.

(b) Kazipet- Kondapalli. Final location survey has been completed and Part Detailed estimate submitted to Accounts for vetting.

As against the estimate for ₹1054.35 crore, only ₹0.42 crore was incurred till March, 2014 with 0 per cent physical progress and a balance throw forward cost of ₹1053.93. The project is to be completed by 31-03-2023. Detailed estimate for phase one was only approved so far by Railway Board. Though only a minimum of 3.50 hectares was identified for acquisition, the proposals have not been initiated yet.

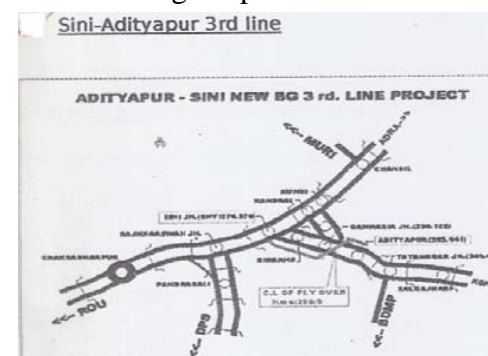
16. **Goelkera-Monaharpur 3rd line (DL) - (South Eastern Railway)**

The project was included in the Pink Book 1997-98 at an approximate cost of ₹ 95.29 crore with the objective to cater anticipated growth of traffic on account of expansion of Steel plant, Cement Plant and additional coaching traffic. The work was frozen in July 2001 and further de-frozen in February 2006. The project was transferred to RVNL in March 2008. The latest anticipated cost of the project has gone up to ₹ 360 crore. The project was initially declared as 'High Priority' project in July 2013. Though the first phase of the project, i.e., Monaharpur-Posotia was completed in March 2013, it could not be opened for traffic till March 2014. The total cost incurred on this project was ₹ 144.97 crore up to March 2014.

Due to inconsistent decisions taken by railway over a period of time i.e. freezing the project for five years after taking it up and then after another seven years categorizing as a 'High priority' project, the project suffered severe delays and cost overrun. After 16 years from taking up of the project, the work is still going on (Physical Progress 80 per cent) and the cost of the project has increased almost three times.

17. **Sini – Adityapur 3rd line (DL) (South Eastern Railway)**

The project was sanctioned by Railway Board in 2010-11 at an estimated cost of



₹ 143.16 crore with the target to complete the work in three years. The work is still to be completed (November 2014) even after a lapse of more than four years.

The main objective of taking up the project was to enhance the throughput of the sections covered under the project (Commercial purpose). The stated objectives of taking up the project were defeated due to delay in completion of the project as the utilisation of line capacity of the existing lines which was 91.8 *per cent* at the time of the proposal in PWP (2008-09) had increased to 114 *per cent* in September 2014, thereby increasing the line congestion rather than augmenting it.

18. Birur–Shivani DL (RRB–SHV) and Hosadurga Road–Chickjajur DL (HSD–JRU) (South Western Railway)

Birur–Hosadurga–Chickjajur section is a sub-section of Tumkur-Hubli (TK-UBL) section of Mysore Division. This is a single line non-electrified section. The length of the section is 67.54 km with a ruling gradient of 1 in 100 (compensated) and maximum speed is 100 kmph. Maximum permissible speed of the goods train is 75 kmph. This section was handling, each way, daily 13 Express trains, 4 Passenger trains and 7 goods trains. Due to single line virtually there was no path available between 22:00 hrs to 04:00 hrs. Goods trains were regulated/ stabled at Birur, Ajjampura and Shivani duly shutting down the locomotive. Hence the urgent need to increase the charted capacity to accommodate freight trains. Commissioning of Hassan-Mangalore (HAS–MAQ) BG conversion has also resulted in increase in carriage of freight by 4 million tons (Iron Ore) over this section towards MAQ port. The bottleneck was this section as DL upto Birur was almost complete. DL of the section between RRB–JRU will result in avoiding the crossing of trains thereby resulting in reduction of the overall running time. The section between RRB–JRU was taken up as 3 patch doubling projects as follows:

Sl. No.	Name of the Section	Distance (km)	Ref. to PB	Abstract cost (₹ in crore)
1	RRB–SHV	28.68	24 of 2010-11	121.98
2	HSD–JRU	28.89	25 of 2010-11	116.00
3	SHV–HSD	9.98	28 of 2011-12	33.36
	Total	67.54		271.34

19. RRB–SHV patch doubling

This patch doubling was originally approved in Railway Budget in the year 2010-11 at an anticipated cost of ₹ 121.98 crore. Detailed Estimate was sanctioned for ₹142.64 crore vide No. 2010/W-4/DL/SWR/BS dated 31/05/2011. This project was afforded the status of “High Priority” during the year 2013-14.

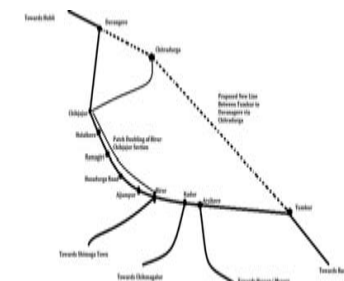
20. HSD–JRU Patch doubling

This project was originally approved in Railway Budget 2010-11, at an abstract cost of ₹ 116.00 crore. Detailed Estimate was sanctioned for ₹203.40 crore vide Railway Board letter No. 2012/W1/DL/SWR/HRC dated 04/07/2013. This project was included as “High Priority” project during 2013-14. The projects were sanctioned for a total stretch of 67.54 km (Birur-Chikjajur Section) at an overall cost of ₹475.85 crore with a view to increase the chartered line capacity, reduce the running time of trains, provide additional paths for Goods trains and increase average speed of Goods trains.

These projects were justified on the ground that the total utilisation of the chartered capacity of the section was to the extent of 137 per cent (2008-09 and 2009-10).

Further, Railway Board, vide Pink Book item No.17 of 2007-08 had sanctioned Traffic Facility works of strengthening of nine stations on iron ore moving routes. Out of these nine stations, works of provision of crossing stations at Ajjampur, Hosadurga Road, Ramagiri and Holalkere fell in the same Birur–Chikjajur section. This work was sanctioned as urgent measures were required to increase the line capacity of the section. A third line with CSL of 715 meters was to be provided at these stations which would serve to ease out the congestion in this section. The work was taken up for execution only in 2013 in four stations. Even those four stations fell in other than the Birur-Chikjajur Section. However, works in the four stations Ajjampur, Hosadurga Road, Ramagiri and Holalkere falling in Birur-Chikjajur Section were handed over to the Construction organization even as doubling work in the section was in progress.

Incidentally, Tumkur-Davanagere NL Project was sanctioned during 2011-12 (during the same period the patch doubling projects were sanctioned) as a cost sharing project with GoK in the ratio of 50:50 with land to be provided free of cost by the State Government. This project was sanctioned with a view to divert passenger traffic on Bangalore-Hubli section and beyond from the existing line via Birur-Chikjajur. Out of 17 passenger services on



the Birur-Chikjajur route, more than 50 *per cent* were towards Hubli from Bangalore. This NL was also shorter by more than 55 kms to the existing route via Birur-Chikjajur.

The proposal and sanction of the three patch doubling projects were not justified for the following reasons:

Out of the total utilization of 137 *per cent* of the chartered capacity of the section, 75 *per cent* of the capacity accounted for running of passenger trains. Goods trains occupied to the extent of 20 *per cent* and the balance five *per cent* by other trains. Even the NL would serve to ease the capacity utilization of Birur-Chikjajur by more than 50 *per cent* in addition to the adding up of new lines for a length of 199.70 km with scope for development of the backward areas along the new line.

Thus, failure of Railway Administration in completing the traffic facility works sanctioned in 2007-08 had resulted in increased capacity utilization of the line to 137 *per cent* during 2008-09 and 2009-10. It is pertinent to note that due to imposition of ban on Iron-Ore by Honorable Supreme Court during June 2010, the capacity utilization eased out and came down drastically to 78 *per cent* in 2013-14. Railway Administration being aware of reduction in Iron-Ore traffic could have continued operation in the section with single line duly increasing line capacity by completing the traffic facility work in all the nine stations.

Thus the objective of easing/ increasing the line capacity of Birur-Chikjajur section could have been achieved by completing the sanctioned traffic facility works and execution of the Tumkur-Davanagere NL project. Proposing and sanctioning of the patch doubling works in Birur-Chikjajur at a huge cost of ₹395.80 crore, on the eve of Tumkur-Davanagere NL was totally unjustified. The expenditure of ₹177 crore already incurred on the doubling project upto 31/03/2014 would remain unproductive.

21. Viramgam-Surendranagar (DL) (Western Railway)

The work was scheduled to be completed by March 2014. Out of total length of 65.26 km as on 05/08/2015, 53.01 km is pending.

22. Udhna-Jalgaon with electrification (DL) (Western Railway)

The work was scheduled to be completed by March 2014 as per original DOC. Till March 2015, 229 Kms was completed, out of which 85 Kms was commissioned. The revised target date for completion of balance 65 kms was scheduled for completion by March 2016 and balance 13 kms scheduled for completion by March 2017. Increase in time lag for completion resulted in increase in project cost per km from the original ₹ 2.32 crore to ₹7.06 crore.

23. Bhopal-Bina project 3rd line– RVNL-(DL) (West Central Railway)

The construction of Bhopal- Bina 3rd line (143 Kms) was taken up primarily for enhancing the throughput of the sections. The project was sanctioned in the year 2008-09 and taken up in October 2009 with the original target of completion in August 2011. The target date of completion was revised to December 2015. 86 *per cent* of the work was completed as of March 2014. Out of a total length of 143 kms., only 19 kms. of section length was commissioned. Thus, due to delay in completion of the whole project, the objective of increasing the throughput was delayed to that extent.

24. Bina-Kota – RVNL (DL) (West Central Railway)

The objective of the project was to increase rake capacity due to upcoming Thermal Power stations i.e. Motipura chowki and Salpura. The Detailed Estimate was sanctioned in September 2012 and work was commenced in October 2012 with target date May 2017. It was seen that only 3.35 *per cent* of work has been completed as of March 2014.

APPENDIX – IX (REF. TO PARA -1.6.9)						
STATEMENT SHOWING ALLOTMENT OF FUNDS VIS-À-VIS PHYSICAL PROGRESS (LESS THAN 50 PER CENT) (₹ IN CRORE)						
S. No.	Name of project	Railway	BG / Year	AE during the same year	Percentage of AE to BG	Physical progress in per cent
	New Line					
1.	Belapur-Seawood-Uran Electrified Double line	CR	92.5 (2010-11)	5.13	13.12	12
			55 (2011-12)	11.07	20.12	12
2.	Khurda Road-Bolangir New Line (289 Kms)	ECoR	28.1 (2009-10)	13.92	49.54	10
			120 (2010-11)	54.49	45.41	11
3.	Talcher - Bimlagarh		50 (2010-11)	20.17	40.34	5
			30 (2012-13)	14.63	48.77	6
4.	Giridih- Koderma (Phase-I) 150 Km	ECR	60 (2010-11)	16.67	27.78	Not made available
5.	Koderma - Tilaiya(68 Km)		20 (2010-11)	5.80	29.00	
			30 (2011-12)	9.92	33.07	
6.	Agra-Etawah	NCR	50 (2011-12)	0.94	1.88	84
7.	Jind- Sonapat (88.90 Km)	NR	33.30 (2011-12)	2.56	7.69	27
8.	Chandigarh- Baddi (33.23 Km)		1.91 (2009-10)	0.00	0	0
9.	Deoband- Roorkee (27.45 Km)		20 (2012-13)	4.69	23.45	5
10.	Cuddapah-Bangalore	SCR	29 (2009-10)	0.78	2.69	3
			40 (2010-11)	7.59	18.98	3.93
			50 (2011-12)	0	0	5
11.	Dallirajahara-Jagdalpur (235 km)	SECR	115 (2010-11)	0	0	0
12.	Wadsa-Gadchiroli (49.5 km)		2.00 (2013-14)	0.23	11.5	Not available
13.	Bowaichandi-Arambagh (31 km)	SER	20 (2010-11)	0.55	2.75	1
			122 (2011-12)	16.13	13.22	5
14.	Bagalkot-kudachi (142Kms)	SWR	30 (2012-13)	1.94	6.47	0
15.	Bangalore- Sathyamangalam (260 Kms)		2 (2012-13)	0.06	3	0

Status of Ongoing Projects in Indian Railways – New Line, Doubling and Gauge Conversion

16.	Hubli-Ankola (167 kms)		5 (2009-10)	0.47	9.4	15
17.	Munirabad-Raichur (165 kms)		20 (2009-10)	2.65	13.25	5
GC						
1.	Bardhaman-Katwa [51.52 km] with New Material Modification for Katwa-Bazarsau [30.59 km]- Doubling. Katwa[Dainhat]-Mateswar [34.4 km]	ER	40 (2009-10)	0.01	0.025	0
2.	Ratlam-Mhow-Khandwa-Akola (472.64 kms)	WR	25 (2009-10)	1.07	4.28	0
DL						
1.	Pirpainti-Bhagalpur (59.06 km)	ER	20 (2011-12)	0	0	0
2.	Tinpahar-Sahibganj [37.81 km] as Ph-1 of doubling of Tinpahar-Bhagalpur		13 (2009-10)	0	0	0
3.	Sahibganj-Pirpaniti (10.45 km)		4 (2010-11)	0.54	13.5	0
4.	Nabadwipdham-Patuli		20 (2011-12)	1.43	7.15	0
5.	Salka Road-KGS-Patch Doubling (26 Km)	SECR	60 (2011-12)	3	0.05	39.3
6.	Khodri-Anuppur with flyover at BSP (61.6 Km)		60 (2011-12)	5.55	9.25	46.98
7.	CPH-JSG 3 rd line		10 (2009-10)	2.33	23.3	0
			25 (2010-11)	3.01	12.04	10
			50 (2011-12)	9.4	18.8	10
8.	Goelkera - Monoharpur 3rd Line	SER	39.45 (2009-10)	0.01	0.03	0
9.	Sini - Adityapur - 3rd line		4 (2010-11)	0.04	1	1
10.	Viramgam-Surendranagar (65.26 kms)	WR	5 (2010-11)	0.04	0.8	0
			59 (2011-12)	5.35	9.07	0
Total = 29 (NL-17, GC-2, DL-10)		11 ZRs				

APPENDIX – X (REF. TO PARA-1.6.9)					
STATEMENT SHOWING EXCESS EXPENDITURE AGAINST BUDGET ALLOTMENT) (₹ IN CRORE)					
S. No.	Name of project	Railway	BG (year)	AE during same year	Percentage of excess expenditure
	NL				
1.	Ahmednagar-Parli Vaijnath	CR	55 (2011-12)	77.10	40.18
			25 (2012-13)	78.83	215.32
2.	Belapur-Seawood-Uran Electrified Double line		10 (2013-14)	52.99	429.9
3.	Talcher - Bimlagarh	ECoR	10 (2009-10)	21.42	114.20
			5 (2013-14)	12.3	146
4.	Const. of Rly. Bridge over River Ganga at Munger	ECR	40 (2009-10)	61.58	53.95
			57 (2011-12)	114.29	100.51
5.	Patna Ganga Bridge with linking between Patna & Hajipur. (19 KM)		40 (2009-10)	91.42	128.55
			50 (2011-12)	157.38	214.76
			14 (2012-13)	145.16	936.86
6.	Giridih- Koderma (Phase-I) 150 Km		10 (2009-10)	40.10	301
7.	Koderma - Ranchi (189 Km)		68 (2009-10)	184.53	171.37
8.	Deoghar-Dumka [72.25 km]	ER	16.50 (2009-10)	29.63	79.58
			2.88 (2011-12)	32.11	1014.93
9.	Rampurhat-Mandarhill via Dumka (130 km)		30 (2010-11)	105.64	252.13
10.	Agra-Etawah	NCR	25 (2009-10)	62.18	148.72
			20 (2012-13)	58.77	193.85
11.	Nangaldam-Talwara (83.74 Km)	NR	25 (2009-10)	87.75	251
12.	Rewari-Rohtak (81.26 Km)		35 (2009-10)	59.83	70.94
13.	Jind- Sonapat (88.90 Km)		15 (2009-10)	87.47	483.83
14.	Nandyal-Yerraguntla	SCR	40 (2011-12)	150.25	275.63
15.	Gulbarga-Bidar		15 (2013-14)	112.68	651.2
16.	PDPL-KRMR-NZB		15 (2009-10)	43.25	188.33
17.	Bangalore-Hassan via Shrvanbelagola (166 kms)	SWR	70 (2012-13)	134.22	91.74
18.	Kadur-Chickmagalur-Sakaleshpur (93Kms)		5 (2009-10)	30.50	510
19.	Rayadurga-Tumkur via Kalyandurga (206 kms)		5 (2010-11)	20.79	318
	GC				
1.	JayNagar - Darbhanga- Narkatiaganj (268 KM)	ECR	30 (2010-11)	75.50	151.67

Status of Ongoing Projects in Indian Railways – New Line, Doubling and Gauge Conversion

2.	Quilon-Tirunelveli-Tiruchendur; Tenkasi – Virudunagar	SR	0 (2011-12)	79.99	100
	DL				
1.	Utratia-Zafrabad doubling of balance 148 km section with MMs for Raibareli-akbarganj (46.9 km) and Sultanpur-Amethi (19.22 km) with new MM of Sultanpur-Kadipur(38.7 km)- new lines	NR	8.92 (2009-10)	69.60	680.27
2.	Goelkera - Monoharpur 3rd Line	SER	10 (2011-12)	37.63	276.3
3.	BPL-BINA-3rd LINE	WCR	35 (2009-10)	130.87	273.91
			50 (2010-11)	200.37	300.74
	Total = 24 (NL-19, GC-2, DL-3)				

APPENDIX- XI (REF. TO PARA 1.6.9.3)

BRIEF RESULTS ON COST SHARING PROJECTS

In 10 ZRs ((CR, ER, ECR, NR, NWR, SR, SCR, SER, SECR and SWR), 38 projects covering a length of 3551.67 Km were taken up on cost sharing basis with the State Governments. The original target date of completion was not fixed for 23 projects (NL-22, GC-1). Further, dispute noticed in four cost sharing projects as the State Government refused to bear this additional financial liability due to increase in land cost. 12 cases were delayed from original date of completion. In 24 cases, the target date was not fixed or not available. The brief results of these 38 ongoing cost sharing projects are given below:

1. Ahmednagar-Beed-Parli Vaijnath New Line project - (Central Railway):-

The project Ahmednagar-Beed-Parli-Vaijnath was sanctioned during the year 1995-96 on socio economic basis with the aim to provide infrastructure for the speedy economic development of the backward area of Maharashtra. The project commenced during the year 1996 with estimated Rate of Return (ROR) being (-) 0.208per cent. The project is still going on for the last 18 years and the physical progress was only five per cent as on 31.03.2014. The original target date was 24 months from the date of sanction of the work; however there was no revision of target date for the completion of the project thereafter.

This project was undertaken on 50:50 cost sharing basis with the Government of Maharashtra. Original cost of the project was ₹ 353 crore which was revised to ₹ 2820 crore in March 2014. The Railways share at the initial stage was ₹ 176.54 crore which was increased to ₹1410 crore as per the latest anticipated cost of the project. The cumulative expenditure on the project as on March 2014 was ₹ 299.28 crore. The balance amount required for completion of the project as per PB of 2014-15 was ₹ 2486.08 crore, of which Railway's share was ₹ 1249.95 crore and Government of Maharashtra's share was ₹1236.13 crore.

The work was to be carried out in five phases. Sanction for 15 kms from ANG-Narayandoh was received in January 1999. Sanction for the balance kms was received in May 2008. Land acquisition for first 15 kms was completed and formation along with the bridge work was completed in March 2006. The work could not be put to use as the P. way and other works were not completed. The unfruitful expenditure of ₹ 15.15 crore, incurred on the first phase was taken up in audit in Draft Paragraph No.11 of 2005-06

Achieving the desired objective seems very remote and the completion of the project also looks equally remote considering the pace of progress and the time over run of the project.

2. Wardha-Nanded (via Yavatmal-Pusad) New Line – (Central Railways):-

The project of Wardha-Nanded (via Yavatmal-Pusad) New Line was sanctioned during the year 2008-09, on socio economic consideration with the aim to provide the infrastructure for the speedy economic development of the backward area of Maharashtra. The project commenced during the year 2010 with estimated Rate of Return (ROR) being -2.684per cent. The project is going on for the last 4 years and the physical progress is only 10per cent as on 31.03.2014. The original cost of the project was ₹ 697 crore which was revised to ₹ 2500 crore in March 2014. The target date for completion of this project has not been fixed.

This project was undertaken on 60:40 cost sharing basis with the Government of Maharashtra (40per cent). Railway's share at the initial stage was Rs 418.20 crore which increased to ₹1500 crore as per the latest anticipated cost of the project. The cumulative expenditure on the project as on March 2014 was ₹ 68.25 crore. The balance amount required for completion of the project as per PB of 2014-15 was ₹ 2432.68 crore, of which Railway's share was ₹ 1473.64 crore and the Government of Maharashtra's share was ₹959.04 crore.

As the target date for completion of the project was not been set, achieving of the objective has become remote and the completion of the project also looks equally remote considering the pace of progress and the time over run of the project. Feasibility study and Engineering cum traffic survey was also not conducted for this project.

3. Belapur-Seawood-Uran Electrified double line – (Central Railway)

The project of Belapur-Seawood-Uran Electrified double line was sanctioned during 1996-97 with an abstract cost of ₹ 401.80 crore for development of Navi Mumbai & facilitate operation of train services connecting Greater Mumbai. This project was undertaken on 33:67 cost sharing basis with CIDCO. The Railway's share of ₹ 132.59 crore at the initial stage increased to ₹ 604.83 crore as per the latest anticipated cost of the project. The cumulative expenditure on the project as on March 2014 was ₹ 372.89 crore. The project cost was revised to ₹ 1814.48 crore in March 2014. The balance amount required for completion of the project as per PB of 2014-15 was ₹ 1543.84 crore, of which Railway's share was ₹ 452.70 crore and CIDCO's share was ₹1091.14 crore.

The route length of the Railway line was 23 Km. The main purpose of this project was to improve the accessibility of the central part of Navi Mumbai from other peripheral area of the region where development was planned/taken place. The project commenced during the year 1996 and

has been going on for the last 18 years and the physical progress is only 15 per cent as on 31.03.2014. The original target date was 4 years from the date of sanction of the work. The work was now to be completed by June 2014, subject to availability of funds and clear site.

Achieving the desired objective seems very remote and the completion of the project also looks equally remote considering the pace of progress and the time over run of the project.

4. Construction of Rail cum Road Bridge across River Ganga at Munger – New Line – (East Central Railways)

The Project “Construction of Bridge over River Ganga at Munger was sanctioned in 1997-98 at an anticipated cost of ₹ 920.77 crore. The Detailed Project Report (DPR) of the work was submitted by RITES in Feb, 2002 & the work was taken up keeping in the mind the socio-economic upliftment of the region since the Rate of Return (ROR) of the project was on lower side (1.545 per cent). The Cabinet committee on Economic Affairs (CCEA) gave the clearance for the Rail Bridge in September, 2002 and Railway decided to execute the work on cost sharing basis with Ministry of Surface and Road Transport (MOSRTH). It was agreed by the parties concerned that the cost of Main Bridge will be shared in 56.64 & 43.36 per cent by the Railway and Sharing Agency & the cost of Guide Bund will be borne equally by the both parties. It was also decided that the cost of Rail link and Road line will be borne by the Railway and the sharing agency respectively Accordingly, the Project Rail cum Road Bridge across River Ganga was sanctioned by Railway Board on 07.10.02 at a total cost of ₹ 921 crore with Railways share as ₹ 539 crore and Ministry of Surface and Road Transport (MOSRTH) share of Rs 392 crore. The said estimate of the project was sanctioned in four part estimates excluding the road portion at a total cost of ₹ 815.45 crore. The detailed cost of the project was later revised and the Railway Board sanctioned the revised estimate of the project including the cost of road approaches at a total cost of ₹ 2361.87 crore with Railways’ share as ₹ 1246.55 crore and MOSRTH’s share as ₹ 1115.32 crore. A total of ₹ 1341.09 crore was incurred on the project and the physical & financial progress of the work was 72 & 57 per cent respectively as on 31st March, 2014. The work was originally targeted to be completed by 31.12.2007 but the work is still incomplete in spite of lapse of approximately seven years since the original target date of completion. Moreover, the target date of the completion of the project has now been fixed as 30.06.2015.

5. Construction of Rail cum Road Bridge across River Ganga at Patna New Line – (East Central Railways)

The Project “Construction of Bridge over River Ganga at Patna was sanctioned in 1997-98 at an anticipated cost of ₹ 600 crore. The Detailed Project Report (DPR) of the work was submitted by the RITES in June, 2001 the work to be taken up keeping in the mind the socio-economic upliftment of the region since the Rate of Return (ROR) of the project was on lower side (5.6 per cent). The detailed estimate of the project was sanctioned by the Railway Board at a cost of ₹ 624.47 crore in January 2002. Meanwhile Railway Board enhanced the scope of work and

agreed for the construction of Rail cum Road Bridge on cost sharing basis with the Government of State of Bihar at an abstract cost of ₹ 1389 crore. The sharing cost of the project on behalf of the state of Bihar was to be funded out from the Backward Region Development Fund (BRGF). It was decided that the cost of Main bridge will be shared in 57 & 43 per cent by the Railway and Sharing Agency & the cost of Guide Bund will be borne equally by the both parties. It was also decided that the cost of Rail link and Road line will be borne by the Railway and the sharing agency respectively. Accordingly revised estimate excluding the cost of construction of road approaches amounting to ₹ 1366.75 crore was sanctioned by Railway Board in December 2007. The proper Rail cum Road Bridge was to be executed by the Railways while the road approaches were to be constructed by the concerned Road Authorities. The revised detailed estimate of the project was later again revised and the Railway Board sanctioned the 2nd revised estimate of the project including the cost of road approaches at a total cost of ₹ 2921.46 crore with Railways' share as ₹ 1681.36 crore and NHAI share as ₹ 1240.09 crore. A total of ₹ 2071.80 crore was incurred on the project and the physical & financial progress of the work was 67.11 & 70.92 per cent respectively as on 31st March, 2014. The work was originally targeted to be completed by 31.12.2007 but the work is still incomplete in spite of lapse of approximately 7 years since the original target date of completion. Moreover, the target date of the completion of the project has now been fixed as 30.06.2015.

6. Koderma-Girdih New Line Project– (East Central Railways)

The Project of Construction of New line from Koderma to Girdih was sanctioned in 1996-97 at an anticipated cost of ₹ 145 crore to provide a better Rail link to deprived area and to ease infrastructural constraints to boost trade. It was agreed by the MOR and Govt. of Jharkhand (GOJ) that the cost of the construction of this project will be bear in the ratio of 2:1 by the GOJ and MOR respectively. The part detailed estimate for the project was sanctioned at a cost of ₹ 51.82 Crore on 10.10.2000. Subsequently, the detailed estimate of the project was sanctioned at a cost of ₹ 371.86 crore. Later the funding pattern of this project was changed and it was decided that the cost over and above the original estimated cost will be borne equally by the both parties. Total anticipated cost of the project has reached to ₹ 768.87 crore out of which ₹ 442.20 crore would be from the deposits made by GOJ. A total of ₹ 540.94 crore was incurred on the project and the physical & financial progress of the project was 73 & 70 per cent for the project respectively as on 31st March, 2014.

7. Koderma-Ranchi New Line Project– (East Central Railways)

The Project of New line from Koderma to Ranchi was sanctioned in 1998-99 to provide a better Rail link to deprived area and to ease infrastructural constraints to boost trade. Railway Board decided to build the Railway line in three phases- Koderma to Hazaribagh, Hazaribagh to Barkakana & Barkakana to Ranchi. Meanwhile the Memorandum of Understanding was signed in February 2002 between the Ministry of Railways (MOR) and Government of Jharkhand (GOJ) to share the cost of construction of this project. It was agreed that the cost of the

construction will be bear in the ratio of 2:1 by the GOJ and MOR respectively. The detailed estimate for the first phase i.e. Koderma to Hazaribagh and for the second phase i.e. Hazaribagh to Barkakana was sanctioned at a cost of ₹332.06 crore and ₹307.73 crore respectively on 08.02.2002. Railway Board sanctioned the detailed estimate for third phase i.e. Barkakana to Ranchi at a cost of ₹393.25 crore on 14.10.2003. The combined revised estimate of the project at a cost of ₹2957.21 crore was under approval as on 31st March, 2014. Later the funding pattern of this project was changed and it was decided that the cost over and above the original estimated cost will be borne equally by the both parties. A total of ₹1775.34 crore was incurred on the project and the physical & financial progress of the work as a whole was 64 & 60 per cent for the project respectively as on 31st March, 2014.

8. Koderma-Tilaiya New Line Project– (East Central Railways)

The construction of New Line from Koderma to Tilaiya was conceptualized to provide a Rail link from Shivpur coalfields to super thermal Power plant of NTPC at Barh and to open a short route between the capitals of Bihar & Jharkhand. The consolidated detailed estimate of the project was sanctioned at a cost of ₹ 418.17 crore in November 2004. Meanwhile, the Memorandum of Understanding was signed between the Ministry of Railways (MOR) and Government of Jharkhand (GOJ) to share the cost of construction of this project but limited to portion falling in the state of Jharkhand since the project is spread in Bihar and Jharkhand lines projects on 19th February 2002. Out of these six projects, three new line projects is being constructed by East Central Railway. It was agreed by the both parties that the cost of the construction of all these six projects will be bear in the ratio of 2:1 by the GOJ and MOR respectively. Later the funding pattern of the project was changed and it was decided that the cost over and above the original estimated cost will be borne equally by the both parties. A total of ₹219.54 crore was incurred on the project and the physical & financial progress of the project was 46 & 52 per cent for the project respectively as on 31st March 2014.

9. Bardhaman-Katwa [51.52 km] Gauge Conversion with New Material Modification for Katwa-Bazarsau [30.59 km]- Doubling, Katwa [Dainhat]-Manteswar [34.4 km], Negum-Mangalkot [8.60 km] and Manteswar-Memari[35.6km]-New Line project - (Eastern Railway)

The Bardhaman-Katwa Gauge Conversion project was sanctioned in 2007-08 with the anticipated cost of ₹ 245.16 Crore and schedule period of opening in 2011-12 to improvement of passenger services and inclusion of goods traffic. Although being cost sharing project with West Bengal State Government on 50:50 share basis no MOU has been executed so far. The project was taken up as cost sharing on the basis of a letter from the State Government. However, the liability of State Government subsequently have been handed over to NTPC who deposited an amount of ₹ 112.58 crores in March 2014 after the deposit of ₹ 10 Crores by State Government. The project with incurrence of an expenditure of ₹ 225.81 Crores (92per cent financial progress) upto March 2014 could achieve only 50per cent physical progress. The ROR of the project was assessed

at 10per cent by taking into account the element of cost sharing deposit of state government as well as by anticipating goods earnings with the setting up of a coal based thermal plant of NTPC near Katwa in March 2010.

In taking up the project the annual savings due to conversion from NG to BG was anticipated at ₹ 2.58 Crore and net goods earnings was assessed at ₹ 15.42 Crore per year from the opening year 2011-12. But with completion of 50per cent of the project after lapse of 3 years from schedule date of opening , the projected savings lagged behind ₹ 3.87 Cr. (50per cent of ₹ 2.58 x 3 years) and the projected net earning @ ₹ 14.00 Crore per year from 2011-12 could not be achieved which amounted to ₹ 46.26 Crore (₹ 15.42 x 3 years). Thus financial impact of delay in completion of the project was assessed as ₹ **50.13 crore** during the period from 2011-12 to 2013-14.

The project was categorized as High Priority during 2012-13 and again in 2013-14 but with incurrence of ₹ 33 Crore in 2012-13 no further physical progress beyond 50per cent (achieved in 2011) could be achieved, thereby defeating very purpose of categorization as High Priority.

10. Dumka-Rampurhat New Line Project – (Eastern Railway)

This is the Phase-II project of Manderhill-Rampurhat via Dumka Project taken up for Socio-economic development of Santhal Parganas. The project was sanctioned in 2001 with the anticipated cost of ₹ 143.71 Crore. But with only 60per cent of physical progress the project cost has reached to ₹ 418.88 crores upto February 2014. This is a cost sharing project with Jharkand Government. Initially, in the MOU executed in February 2002 the share of Railways and the State Government was fixed on 1/3rd and 2/3rd ratio but when the MOU was renewed in February 2012 a modification in the share has been brought into. The additional expenditure over and above the initial project cost of ₹ 154 Crore (MOU) was decided to be shared on 50:50 basis. The latest anticipated cost of the project is ₹ 512.46 Crore and with the increase of share of 16.67per cent the liability of the Railways increased to ₹ 59.75 Crores.

The substantial excess expenditure of ₹ 271.17 Crores upto February 2014 however included an amount of ₹ 118.77 crores on account of price escalation due to delay in completion of the project. The project cost has also increased due to addition in quantity amounting to ₹ 71.38 Crores. The Revised Estimate was not sent to Railway Board in time and it was sent in July 2012 but not yet sanctioned by Railway Board, who observed that a blatant violation of Engineering Code was done by the Zonal Railways by not sending the revised estimate in time. Government of India, Ministry of Finance, Department of Expenditure O.M. dated 07.05.2003 read with Planning Commission, New Delhi's D.O. No. O-14015/2/98-PAMD dated August 19, 1998 prescribed to formulate an accountability mechanism in case of Time and Cost Overrun of the projects funded by Government. The O.M.s prescribed to devise an appropriate mechanism for fixing the responsibility for delay in submission of Revised Cost Estimate. No such mechanism was found to be set up in Eastern Railway.

11. Deoghar-Dumka project New Line Project – (Eastern Railway)

The project was sanctioned in 1998-99 with anticipated cost of ₹180.73 crore. The completion date was not assessed in PET survey. In case of Deoghar-Dumka project it was noticed that expenditure amounting to ₹400 crore had already been incurred as against the agreed cost of ₹200 crore as appeared in MOU thereby enhancing the original cost by ₹200 crore. The ratio of the liability between Railways and State was similar to as discussed in case of Dumka-Rampurhat project i.e. initially 33.33per cent (Railways) and 66.66per cent (State) and finally 50:50. Therefore, Eastern Railway had to incur an amount of ₹100 crore out of the additional cost of ₹200 crore. The additional expenditure, however, was inclusive of price escalation of ₹77.26 crores for which extra liability of the Railway amounted to ₹38.63 crores (50per cent of ₹77.26 crores). The above additional financial liability was due to time and cost overrun.

12. Hansdiha- Godda New Line Project– (Eastern Railway)

This is a cost sharing project with Jharkhand Government on 50:50 share basis sanctioned by Railway Board on 18.05.2011 at an anticipated cost of ₹267.09 Crore. The Project with ROR of (-) 38per cent was considered on socio-economic development basis. Till date the State Government deposited an amount of ₹20 Crore. The work has not been commenced with incurrence of expenditure only ₹87 Crore till March 2014.

The cost of the land however, was assessed at ₹40 lakh per hectare in the Abstract Estimate (in May 2011) on approximation basis. But while preparing part detailed estimate (Feb 2014) the rate of land (₹3.05 crore per hectre) was collected from Jharkhand Government in February 2013 leading to 7.62 times increase of the initial cost amounting to ₹55.90 Crore. This led to extra financial burden of Railway amounting ₹27.95 Crore (50per cent of ₹55.90 Crore, being Cost sharing project with 50:50 share).

13. Nangal Dam – Talwara BG rail link New Line – (Northern Railway)

First phase of the project from Nangal Dam to Amb Andaura (43.914 km) was sanctioned in the year 1982-83 for socio-economic development and work started in 1982 on issue of urgency certificate after an assurance from the Govt. of Himachal Pradesh to share the financial burden for the construction of the Railway line to the following extent ;

- i. Bearing cost of land
- ii. Bearing cost of labour component of earthwork and
- iii. Providing wooden sleepers at cost price.

Detailed estimate for phase-I of the project was sanctioned in 1985 at a cost of ₹37.68 crore (Nangal Dam – Amb Andaura). The construction from Nangaldam to Una-Himachal section was started in 1982 and completed in October 1989 at a total cost of ₹24.13 crore and formally opened to traffic in January 1991 i.e. after nine years of commencement of the work.

The project remained frozen from the year 1991-92 to 1995-96 due to HP Govt.'s refusal to bear cost of land and it was de-frozen in September 1996 when HP Govt. agreed to give land to the Railway free of cost. The construction of 2nd block (Una Himachal to Charuru Takrala) was started in 1998 and completed in June 2004 at a cost of ₹66.97 crores and the section was formally opened for traffic in March 2005.

Construction of 3rd block (Churaru Takrala to Amb Andaura) was completed in January 2011 with a total expenditure of ₹136.17 crore and opened for traffic in July 2011. Detailed estimate for 4th and 5th block (Amb-Andaura to Daulatpur Chowk) and (Daulatpur Chowk to Kartoli Punjab) respectively amounting to ₹ 220.13 crore has been sanctioned by Railway Board in December 2008. The work was held up due to shortage of funds. Later on Revised Estimate for ₹343.43 crore was submitted to Railway Board in April 2010 for sanction. After lapse of four years, Railway Board, in June 2014, returned the same stating that RE being four years old, revision of the estimate (RE) is necessary and directed to send modified Revised Estimate. No modified estimate (RE) was, however, sent by Northern Railway to Railway Board till date (March 2014). An expenditure of ₹178.24 crore has been incurred till March 2014. The DE of 6th block (TLR new BG rail link amounting to ₹354.14 crore) submitted by Zonal Railway in March 2009 was not sanctioned till March 2014 even after lapse of 5 years.

Total expenditure on the project as of March 2014 was ₹383.89 crore with a physical progress of about 55 percent. The main reason for delay in completion of this project was HP Government's backing out of its commitment.

14. Rewari-Rohtak - New line - (Northern Railway)

With the pursuance of State Government and with assurance of sharing 50 per cent of the cost, the work of new line Rewari-Rohtak (75 Km) was sanctioned by Railway Board in 2003-04 considering socio-economic development. The detailed estimate for ₹194.83 crore was sanctioned by Railway Board in May 2006. However, no provision of major bridges having construction cost (₹144.94 crore) almost equivalent to abstract estimate, was made and within a year of starting of work a material modification amounting to ₹145.04 crore for making provision of ROB/RUBs was sent to Railway Board for sanction. Railway Board sanctioned in March 2009 the proposal at a cost of ₹144.94 crore. Later on, revised estimate of ₹330.23 crore was sanctioned in March 2009 by Railway Board. Second revised estimate for ₹ 901.55 crore has been sanctioned by Railway Board in July 2013 which also includes a material modification for shifting of Rohtak - Panipat old line at a cost of ₹ 181 crore.

The project has been completed at a cost of ₹ 543.33 crore and was opened in January 2013 (except MM of shifting of ROK-Gohana existing line). The project was sanctioned with updation of data of 1997 ignoring the changes in ground realities which included necessity of 4 major bridges having cost equivalent to abstract estimates. There was a steep increase in the cost of land which increased from ₹ 19 crore to ₹ 156 crore by the time the project was commissioned. Railways should have insisted upon the State Government to bear the extra cost of land as the increase was within a year and after preparation of detailed estimate. Further Material modification for shifting of existing Rohtak - Gohana line is not prudent in view of the huge cost (₹ 181 crore) involved and having no financial benefit to Railway. From the above it is clear that a project started at cost of ₹ 194.83 crore has not been completed even at a cost of ₹901.55 crore.

15. Chandigarh-Baddi New Line project- (Northern Railway)

This project having Rate of Return of (-) 6.6per cent was included in the pink book of 2007-08 at an anticipated cost of ₹ 328 crore considering socio-economic development. The detailed estimate for ₹ 699.06 crore was sent to Railway Board in November 2008 for sanction. The proposal for this project could not materialise due to land acquisition problems. A revised proposal for Baddi- Ghanauli is under examination. The Physical progress on the project as on 31 March 2014 is Nil after a lapse of a period of more than six years.

16. Deoband-Roorkee New Line project - (Northern Railway)

Deoband-Roorkee (NL) project was sanctioned in the Pink Book of 2007-08 at a cost of ₹105.52 crore considering socio-economic development. The main beneficiary of this project was Uttarakhand Government. Hence, State Government agreed (September 2006) to bear 50per cent cost of the project. The Detailed Estimate (DE) proposed was of ₹ 164.80 crore (June 2008), however, Railway Board sanctioned ₹160.01 crore (November 2008). NRCO submitted the revised estimate in November 2010 at a cost of ₹336.91 crore. The huge excess was due to increase in cost of land, ₹ 18.86 crore was sanctioned in DE now the cost of land was ₹ 153.01 crore. five contracts were awarded in the project and none of them, was completed due to non-availability of land. Only 4.82 kms out of the total 28.48 kms of project was available with NRCO. The work on project was stopped in the year 2010 and physical progress at that time was 30 *per cent*. State Government of Uttarakhand backed out of its commitment of sharing the 50per cent cost and the project of Deoband-Roorkee new line is lying as it is for the last 2 years though an expenditure of ₹ 159.86 crore has been incurred by both the parties.

17. Bhanupalli –Bilaspur- New Line project - (Northern Railway)

This new line work appeared in Pink Book vide item no. 10-A of 2008-09 with a cost of ₹ 1047 crore considering socio-economic development. ROR of this project was (-) 11.48per cent. In response to Railway Board's instruction of November 2008, part estimate of ₹350.32 crore,

covering about 20 km length appeared in February 2009 and was sanctioned by the Board in February 2009 with the instructions that HP Government may be suitably advised to provide fund for land acquisition or else the project will not take off. Further Railway Board has advised not to take up the work beyond Dharat till the decision on funding is finalized.

18. Jind-Sonepat New Line project - (Northern Railway)

Jind-Sonepat new line work was sanctioned in supplementary demand of 2003-04 at cost amounting to ₹190.81 crore on socio-economic basis. Detailed estimate amounting to ₹ 236.08 crore was sanctioned by the Railway Board in June 2009. ROR of the project is negative i.e. (-) 15.64per cent. Revised Estimate amount to ₹ 740.80 crore duly vetted by associate finance was sent to Railway Board for sanction in February 2014 but the same is yet to be sanctioned. This work is being executed with 50:50 cost sharing with Haryana Government. Upto March 2014 expenditure amounting to ₹ 541.83 has been incurred. Haryana Government had deposited ₹ 310 crore towards its share of cost. Upto March 2014, physical progress of the project is 85per cent.

19. Rohtak-Meham-Hansi New Line project - (Northern Railway)

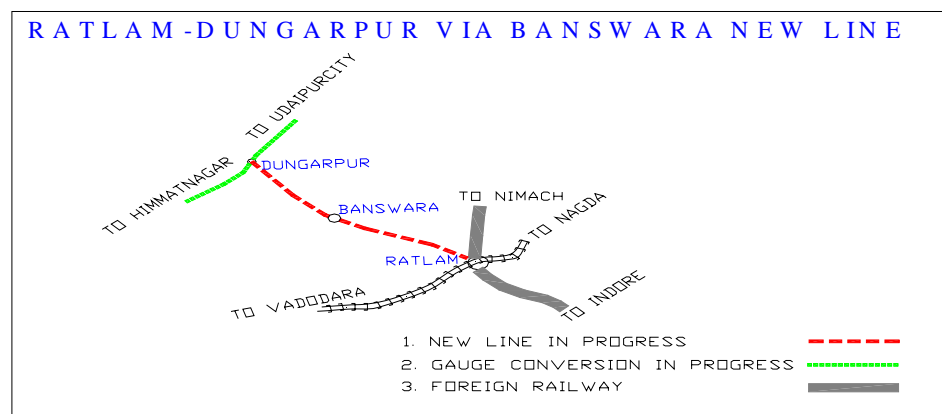
The Reconnaissance Engineering cum Traffic Survey for the project was carried out in October 2009 but at that time it was not considered by the Railway Board. On persistent demands from the people of the region survey was against carried out in the year 2012. As per survey report the cost of the construction was ₹ 406.87 crore with ROR of (-) 6.5per cent. On the assurance of Haryana Govt. that they will provide land free of cost besides 50per cent share of cost in the project, the Railway Administration had agreed to. Consequently, this project appeared in Pink Book of 2012-13 under item no. 14 at an anticipated cost of Rs 287 crore on socio-economic basis. The work has been started and simultaneously a detailed estimate for ₹ 754.88 crore was submitted to Railway Board in September 2013. Railway Board has been raising the various queries on the detailed estimate since then. As per latest information, the Railway has reduced the cost of detailed estimate from 754.88 crore to 576.18 crore and resubmitted the same in November 2014. The detailed estimate has not yet been sanctioned. However the expenditure of ₹ 8.5 crore has since been incurred. The financial progress is 1.2per cent and the physical progress is zero as on 31.3.2014.

20. Ratlam-Dungurpur via Banswara New Line project – (North Western Railway)

The project was sanctioned in 2011-12 on cost sharing basis in the ratio of 50:50 between MOR and GOR (excluding land) for which, the MoU entered into between the Ministry of Railway(MOR) and Government of Rajasthan(GOR) on 31.05.2011

envisaged a completion period of five years from the date of MoU i.e. upto May 2016. However, the physical and financial progress was only 1 per cent as on March 2014 i.e. after passing of nearly three years and as such, target date of completion of May 2016 is unlikely to be achieved. This would result in postponing the anticipated earnings of the project.

As against the Abstract estimated cost of ₹2082.75 crore, the revised cost as per Detailed Estimate Part-II submitted by Railway Administration in December 2013 worked out to ₹ 2920.65 crore. This increased the shared cost of the Railways from ₹ 1025.90 crore to ₹ 1460.33 crore resulting in increased liability of ₹ 434.43 crore for the Railways. Final Location Survey (FLS) was started in Nov 2011. No flow chart for



scheduling of the project was prepared.

RoR of the project was estimated at (+) 3.88 percent which does not qualify the stipulated 14 percent for sanctioning the project. The objective of the project was to serve as an impetus for the development of socially and economically backward areas covering the alignment. It was also observed that revision of RoR has not been done in view of the reduced period of completion of 5 years as given in the MoU in comparison to a period of 10 years adopted in the project report and considering State Govt. share of cost of the project.

Land acquisition for the project being done by GOR was planned to be completed in an unrealistic period of one year i.e. by 2011-12 as per MoU. However, till March 2014, only 118.08 hectares (6.95 per cent) of the 1699.93 hectares is acquired. Due to meagre allotment of funds mainly owing to delayed land acquisition, the final allotment had to be reduced drastically due to which contracts for works could not be awarded. Major deviations from the planned activity indicate that the project would suffer cost and time overrun which will also have to be shared by the Railways.

The construction of the permanent structures at a cost of ₹1.79 crore was not in accordance with the codal provisions. It was observed that the Measurement Book maintained for the work did not contain measurement of each building separately instead it captures SOR items operated for all such works in a contract in a single measurement book. Thus, transparency of execution of items for each sub-work is not maintained.

21. Thaiyat Hamira-Sanu, new line projects – (North Western Railway)

The objectives were to provide, shorter & quick transport infrastructure for the people of North Western part of Rajasthan & also to provide loading facilities of lime stone from Sanu. THM-Sanu project was sanctioned in year 2013-14.

The project was to be taken up by North Western Railway on cost sharing basis (50:50) with the Rajasthan State Mines & Mineral Limited (RSMML). The cost of the project as per abstract estimate was ₹ 236.93 crore. As per provision of the Railway Board's Circular No. 2008/PL/9/16 dated 20-07-2010 every project that shall qualify under the policy of the Railway initiative scheme, shall have undergone a Preliminary Engineering cum Traffic Survey (PETS) which should be not more than six months old.

An MOU shall be signed between the Railway & the applicant laying down the broad terms of agreement. Only after which necessary sanction will be processed by Railways. This will be followed by the FLS which will be under taken by the Railways & the cost of FLS would be shared by the Railway & the party in the proportion of the agreed cost sharing. In contravention to above provisions of the Railway Board's Circular dated 20-07-2010, the MOU has not been signed between the Railway & RSMML till date (Oct. 2014). Whereas FLS was completed in July 2014. The ROR was assessed by the Railway Administration at (+) 15.58 percent in January 2012. This was revised to (+) 21.71 percent in March 2012 on the basis of exclusion of the contribution by RSMML from the projected cash flow for the purpose of determining the ROR. The methodology adopted by the Railway Administration is not consistent with the R3i policy.

Permanent way material worth ₹2.63 crore was issued by Sr. Section Engineer/C/P.way/HMH to Sr. Section Engineer/C/P.way/Jodhpur during the period between November 2012 and January 2013. Out of the above material valuing ₹ 2.63 crore, P.way material worth ₹ 2.19 crore was utilized in yard remodeling work at Jodhpur & the remaining material is lying in the store of SSE/C/P.way/Jodhpur in February 2014. This amount of ₹ 2.63 crore was debited to the year Re-modeling work & debited it to this New Line project of THM-Sanu in which even the Detailed estimate has not been sanctioned so far (October 2014) and there was no allotment of funds (Final Grant) for the project during the year 2013-14. This amount of

₹ 2.63 crore was debited against Deposit of RSMML worth ₹118.46 crore lying with Railway. Thus, the deposits with Railway of THM-Sanu New lines Project were utilized to complete the other works in which funds were not avoidable.

The objectives/significance of the project were defined in the DPR. This was to provide rail connectivity to the backward/tribal areas of Rajasthan and MP in Banswara and Dungarpur districts besides facilitating the development of the area and transportation of inputs such as coal to the proposed thermal power plants and industries coming up in this area. The MoU entered into between the Ministry of Railway (MOR) and Government of Rajasthan(GOR) on 31.05.2011 envisaged a completion period of five years from the date of MoU i.e. upto May 2016. However, the physical and financial progress was only 1per cent as on March 2014 i.e. after passing of nearly three years and as such, target date of completion of May 2016 is unlikely to be achieved.

22. Bidar – Gulbarga New line project – (South Central Railway)

The new line project between Bidar – Gulbarga was taken up on socio economic considerations. The project which was sanctioned in the year 1997-98 could commence only in the year 2003 i.e. after a gap of five years. As of March 2014, a total amount of ₹ 521 crore was spent on the project and the project still has an anticipated balance cost of more than ₹ 324 crore. The project could be completed only upto 65per cent even after 11 years of its commencement.

23. Cuddapah- Bangalore New line project - (South Central Railway)

The project was sanctioned in the year 2008-09 at an anticipated cost of ₹ 1000.23 Crore with an expected Rate of Return (ROR) at 18.78 *per cent* (revised to 10.68per cent)..The objective of the line is to develop the backward districts of Cuddapah and Kurnool apart from ensuring shortest route to Bangalore and was taken up on 50 *per cent* cost sharing with the Government of Andhra Pradesh. The work was taken up in three phases as detailed below:

- (a) Cuddapah to Pendlimarri (21 km) Engine rolling done for 18.5 kms and balance 2.5 kms held up due to dispute on land.
- (b) Pendlimarri- Rayachoti(79.2 km)- Part Detailed estimate to be approved by Railway Board
- (c) Rayachoti- Vayalpadu(53.93km)- Part Detailed estimate to be approved by Railway Board

(d) Madanapalle-Mulbagal(61.6 km)- Part Detailed estimate to be approved by Railway Board

As against the revised estimate for ₹ 2050 Crore , ₹ 162.24 Crore was incurred till March, 2014 with a physical progress of only 7per cent and a balance throw forward cost of

₹ 1887.76 crore. The delay in completion of the project is due to tardy acquisition of land and provision of meager funds and non-finalization of detailed estimate. Though the project is to be completed by March, 2014, only seven per cent progress has been achieved till March, 2014. The following audit issues were noticed in the implementation of the project. Detailed estimate for phase one was only approved so far by Railway Board. Avoidable delay of eight months in arranging payments resulting in delay in land acquisition. The estimated cost and ROR were changed several times between September 1998 and December 2007 due to incorrect adoption of procedures while working out the ROR.

24. Dhallirajahara – Jagdalpur New Line project – (South East Central Railway)

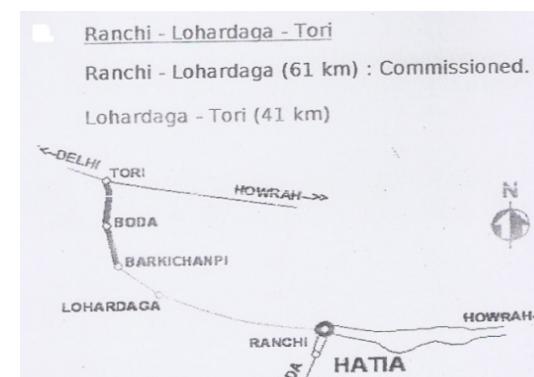
The New Line Project of Dhallirajahara – Jagdalpur (235 Km) was sanctioned long back in 1995-96 being non-target work in the beginning and later the revised target date of completion was 31-10-2016 but the physical progress of the work was very slow (18.06 per cent) as of March 2014.

25. Wadsa – Gadchiroli New Line project - (South East Central Railway)

The physical progress of Project of Wadsa – Gadchiroli (49.5 Km) sanctioned in 2011-12 being the non-target work for which target date of completion was given as 31-12-2020 was zero per cent as of March 2014.

26. Ranchi (RNC) – Lohardaga (LAD) NG to BG conversion (South Eastern Railway)

The project and extension to Tori (44.31 Km) was taken up on cost-sharing basis with the State Government of Jharkhand¹ in 1997-98. The main objective of taking up the project was to provide a basic developmental infrastructure in the area in the backward region of Lohardaga and major expansion of Aluminium plant both at Muri as well as Renukoot apart from promoting trade, industries and mining as well, in line with the planning of Bihar Government. This railway line was expected to boost mining of bauxite ore, kaoline and limestone in the Lohardaga and Ranchi districts and related industries like INDALCO, HINDALCO and Bokaro as well as Durgapur



¹ Pink Book item no. 14 of 1997-98

Steel Plants besides providing a shorter gateway to Northern India via Tori.

The ROR for the project was worked out as (-) 1.24 per cent with Overhead Electrification (OHE) and 0.16 per cent without OHE. Though initially no target date was fixed for completion of the project, the same was fixed as five years from the date of executing the Memorandum of Understanding (MOU) with the State Government of Jharkhand on 19 Feb 2002. The MOU was further extended for six years i.e. up to February 2013, on 14 Feb 2012. Further extension of MOU has not been done till date (March 2014). The MOU dated 19 February 2002, laid down the estimated cost of the project as ₹ 216 crore of which 33 per cent cost was to be borne by Railways and 67 per cent by State Government. Later, after extension up to February 2013, with anticipated cost of ₹ 456 crore, over and above ₹ 216 crore, it was stipulated that Railways and State Government would contribute 50 per cent each. The total cost of the project increased to ₹ 699.01 crore after inclusion of electrification work as MM.

The work of Gauge Conversion of Ranchi (RNC) – Lohardaga (LAD) has been completed and commissioned in March 2008. The work of LAD – Barkichanpi (14.5 kms) towards Tori has also been commissioned and passenger train started running on November 2011. Physical progress of the remaining portion of the project i.e. Barkichanpi – Tori (29.5 kms) was 71 per cent till December 2013 after lapse of almost 6 year from the scheduled time of completion and latest target set for completion is December 2015.

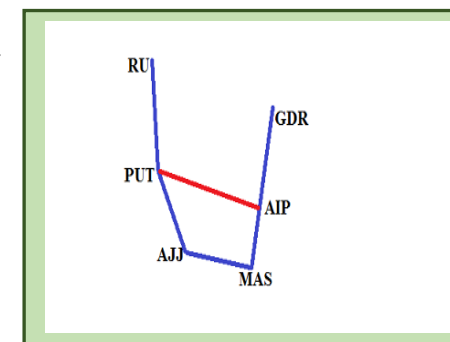
The anticipated cost of the project has increased from ₹ 147 crore to ₹ 699 crore in the last 17 years. Further revision of the estimate was sent to Railway Board in 2013, which is still to be sanctioned due to its non-acceptance by the State Government till date. The initial cost to be shared by railways was ₹ 71.28 crore, which now stands at ₹ 312.79 crore. As such, the financial liability of the railways has increased by more than three times.

There was no provision of OHE in the original estimate. With both ends Ranchi as well as Lohardaga having electrified sections, Ranchi-Lohardaga section would be an isolated diesel section, there would be operational problems and the route cannot be used as a seamless alternative route.

The MOU is yet to be extended beyond Feb 2013. The revised estimate as well as the cost of electrification, which is included as material modification to the sanctioned estimate, is also not yet accepted by the State Government.

27. Attipattu-Puttur New Line project – (Southern Railway)

This new line project was proposed to be on cost sharing basis with M/s. Ennore Port Limited (EPL) which agreed to share 50 per cent of the cost of the project. A preliminary engineering cum traffic survey for a



new line between Attipattu and Puttur was sanctioned in September 2002 and the survey report was submitted (March 2004) to RB and the same was updated (November 2006).

The project was proposed to be on cost sharing basis with M/s. Ennore Port Limited (EPL) considering the increase in port activities and the proposed shifting of entire iron ore and coal traffic to the new port at Ennore. It was also expected to ease the line capacity constraints in the Arakkonam-Puttur section.

As M/s.EPL had agreed to share 50 *per cent* of the cost of the project, the share of M/s.EPL was proposed to be reimbursed interest free through freight rebate at 10 *per cent* for 10 years or till the amount was recovered whichever was earlier. This project was included in the railway budget for 2008-09 and RB advised (April 2008) SR administration to initiate action for early finalization of Memorandum of Understanding (MoU) with M/s.EPL and to undertake final location survey, preparation of plans and estimate for the project. M/s.EPL expressed their inability (September 2009) to fund the project due to the ban imposed by state government of Karnataka based on the directions of Supreme Court of India on export of iron ore and movement of iron ore traffic from Bellary-Hosepet areas, the traffic from these areas to Ennore Port had dwindled changing the iron ore traffic scenario and

SR administration's decision to extend freight discount only for outward traffic (from Port to Indian Railways section)

The detailed estimate for the project for ₹ 527.37 crore was submitted (February 2011) to RB and the same was approved (September 2011) by RB after a delay of seven months.

SR administration failed to persuade RB to explore the possibility of revising the policy on freight discount. Further instructions were not obtained from RB for pursuing the project. No action was taken by SR to finalize the MOU. Meanwhile, fund (₹ 12 crore) was allotted in the budget for 2012-13 and M/s.EPL were requested (May 2012) to formally communicate their acceptance for equal sharing of the cost of the project and to deposit a sum of ₹12 crore towards their share for the year 2012-13. M/s. EPL reiterated their inability to participate in the project.

RB made budget allotment of ₹75.66 crore during 2009-14 and expenditure of ₹2.96 crore (survey, permanent way materials, establishment and general charges) was incurred (March 2014) towards the project. The physical progress was one *per cent*. Though the detailed estimate was sanctioned, no further progress was made pending decision from RB.

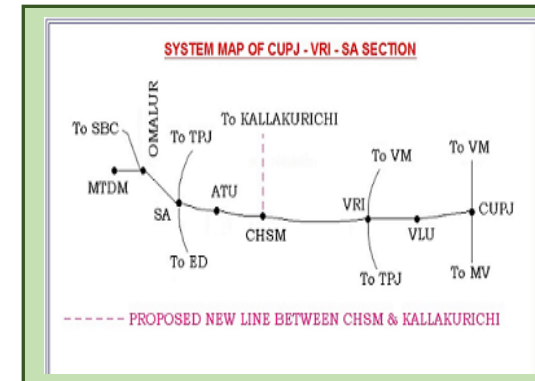
SR administration pursued the project in spite of M/s.EPL expressing their inability to fund the project. The project was taken up without assessing the changed scenario of iron ore traffic and signing of MoU with M/s.EPL. This resulted in blocking up of expenditure of ₹2.96 crore.

28. Cuddalore-Salem Gauge Conversion with new line between Chinna Salem and Kallakuruchi – (Southern Railway)

This project was sanctioned under unigauge policy and for development of Cuddalore port and industries. This project was taken up on the request of the State Government of Tamil Nadu.

The project was sanctioned in 1999-2000 at an estimated cost of ₹ 300.01 crore (including new line between Chinna Salem and Kallakuruchi) on cost sharing by the State Government of Tamil Nadu to the extent of 50 per cent. The State Government deposited ₹ 112 crore during the period from 2003-04 to 2006-07. As the anticipated cost of the project increased to ₹ 372.09 crore, the State Government was advised to deposit an additional amount of ₹74.05 crore. The anticipated cost of the project was further increased to ₹556.64 crore. The State Government had since deposited ₹123.79 crore being its share on the project.

An Expenditure of ₹ 408.05 crore was incurred (March 2014) and the share of the State Government worked out to ₹ 204.03 crore. The **Cuddalore-Salem** via **Vridachalam** gauge conversion was completed and opened for traffic during the period from January 2003 to November 2007. Due to delay in sharing of cost by the State Government and change in alignment issues, work relating to new line **Chinna Salem and Kallakuruchi** did not commence (March 2014).



South Western Railway

SWR had ten ongoing projects on cost sharing terms with Government of Karnataka (GoK) and Andhra Pradesh. For five projects, out of nine executed on cost sharing terms with GoK, land was provided free besides sharing the cost. The cost sharing ratio is 50:50 for all the projects except one in which GoK had agreed to bear 2/3 of the cost. It was observed that no Memorandum of Understanding (MoU) was executed between State Governments and MoR for these projects. Review of these costs sharing projects revealed that:

There was inordinate delay in handing over the land agreed to be provided free by Government of Karnataka which resulted in time and cost overrun. Due to huge cost overrun of cost sharing projects, attributable to delay in completion, Government of Karnataka, vide letter No. CM/246/GOI/14 dated 05/07/2014 had urged MoR to either fully bear the cost of the projects or reduce the share to be borne by Government of Karnataka to 1/3 instead of the agreed 50 per cent.

In the absence of a MoU with Government of Karnataka for timely execution of the project, financial interests of the Railways were not adequately safeguarded. The cost sharing authority's interests were also affected as there was no schedule for execution/ completion of the projects resulting in increased financial liability and non-achieving of intended objectives.

29. Kadur – Chickamagalur - Sakleshpur DL project – (South Western Railway)

This work was included in Supplementary Budget Grant of 1996-97 at a cost of ₹157 crore. The Malnad region of Karnataka State a tourist spot was without rail connectivity. This line in addition to connecting the Malnad region would also provide an alternate shorter route linkage between MAQ port in the West coast and Kakinada, Haldia and Pradeep on the East Coast. Even though the project was not financially viable, the construction was justified as it is shorter BG Route connecting East and West ports. As per Board's instruction the section was divided into two phases. Phase I : DRU – CMGR, Phase II: CMGR – SKLR

Revised Estimate for Phase I at a cost of ₹139.83 crore was approved by Railway board vide letter No. 93/W-1/Survey/SWR/2 dated 27/06/2012 and Phase II Detailed Estimate has been sanctioned at a cost of ₹ 644.73 crore vide letter No. 93/W1/Survey/SWR/3 dated 27/03/2010 bringing the total cost of the project to ₹889.52 crore. Railway Board has frozen the execution of Phase II of the project vide letter dated 19/09/2007. Principal Secretary of GOK vide letter dated 02/02/2013 had requested to defreeze the project and agreed to share 50 per cent of the cost of Phase II.

Revised Estimate of Kadur-Chikmagalur NL project provided for eight manned LCs at a cost of ₹0.74 crore. The work was completed. Based on the policy guidelines of Railway Board (January 2012), the Executing Authority had examined the feasibility of eliminating of the LCs and proposed to open the section duly retaining the LCs. However, GM gave instructions in April 2012 for taking up the work of construction of two RUBs under List of Approved Works (LAW) under the Plan Head 3000, construction of ROBs at four locations and diversions at the remaining two locations charging the expenditure to the project. Construction Organization had obtained Finance concurrence for including the RUBs under LAW during May 2012. However, all the bridge works were awarded by Construction chargeable to the project as under:

Sl.	Contract No.	ROB/ RUB	Awarded Value (₹ in crore)	Executed Value (₹ in crore)
1	73600 dated 19/10/2012	2 RUBs	3.17	3.79
2	73628 dated 18/12/2012	2 ROBs	10.83	12.22
3	73622 dated 18/11/2012	2 ROBs	5.25	7.38
	Total		19.25	23.39

Execution of these bridges was totally unjustified due to the following:

- (i) The original estimate did not even provide for LCs at these eight locations which indicated that the provision was not supported by the requisite Train Vehicle Unit (TVU) factor.
 - (ii) The eight locations were neither on State Highways nor on National Highways justifying the requirement of these bridges.
- Thus erroneous and unjustified decision of provision of ROBs and RUBs had resulted in incurring an avoidable expenditure of ₹23.39 crore in addition to infructuous expenditure of ₹ 0.74 crore on construction of these LCs.

30. Rayadurga- Tumkur New Line project - (South Western Railway)

The project was sanctioned on socio-economic considerations. This will also serve in reduction of Rail distance between Bangalore–Rayadurga-Bellary stations by 137 km. This project was initially included in the pink book 2007-08 at an abstract cost of ₹ 887.315 crore. Detailed estimate cost sanctioned during 2009 was ₹ 970.34 crore. Latest anticipated cost of the project is estimated at ₹1743.09 crore. This is cost sharing project with GOK and GOAP in the ratio of 50:50.

31. Bangalore–Hassan via Sharavanabelagola New Line - (South Western Railway)

The Project was initially approved by Railway Board in 1996-97 for an abstract cost of ₹ 295.75 crore. The NL project was taken upon Socio-Economic consideration. The stretch of 44 km between HAS–SBC was completed and commissioned in 2006 in view of tourist potential for the Mahamastakabhisheka at SGBL. The entire project cost was to be borne by Railways. In 2011 after Railways had incurred an expenditure of ₹ 355.50 crore GOK agreed to share the balance cost of the project in the ratio of 50:50 from April 2010 onwards. Total cost of the project as per Revised Estimate vide letter No. 96/W-1/NL/S/27 dated 24/09/2013 is ₹1289.92 crore. Balance cost to be shared 50:50 between GOK & MOR.

Bangalore-Hassan via Shraavanabelagola NL project was sanctioned in 1996-97 at an Abstract cost of ₹295.75 crore. Subsequently, Detailed Estimate at ₹412.91 crore and Revised Modified Estimate at ₹1289.92 crore were sanctioned. Initially, the cost of the entire project was to be borne by Railways. With effect from April 2010, GoK had agreed to share the cost in the ratio of 50:50. Hassan-Shraavanabelagola section (41.17 km) had been completed at a cost of ₹140 crore (January 2006) and opened for passenger traffic on 07/02/2006. CRS accorded conditional authorization as under:

Balance works, signaling and inter locking works being completed and commissioned as per sanctions under Joint safety certificate.

Specified number of staff/ gangs, including gateman as per the approved yardstick should be in position within one month from the date of opening.

Due to non-compliance of the above conditions, CRS withdrew sanction and the section remained closed for traffic since September 2006 till 2011-12. The review of records revealed the following:

- ✓ Together with the Opening Documents, no geo technical report was submitted to CRS. This had also been brought out in the note regarding delay in commissioning submitted by CE to CAO. It was observed that no soil investigation was carried out before commencing earthwork which was a primary requirement.
- ✓ However, during December 2005 itself, as problems of water oozing from formation and slips (from Chainage 122/00 to Chainage 162/000) due to unstable and deep cuttings were noticed, a reference was made to RDSO. Without attending to the problems, the section was offered for CRS inspection and authorization was given by CRS for opening of the section for passenger traffic. This was highly irregular as passenger safety was compromised as the problem was persisting in all the cuttings. Also it was not apparent as to how opening of the section was authorized by CRS.
- ✓ RDSO had inspected the line during February and May 2006 and had suggested blanketing of 45 cum thickness in cutting, provision of pucca drains, line catch water drains, easing of the side slopes to 2.5:1 with berms of 4 meters in all the cuttings. Hence, to attend to earthwork, as advised by RDSO, two contracts were awarded during 2009-10 and completed in 2011-12 at a cost of ₹8.68 crore.

Thus the practice of commencing Earthwork without detailed geo-technical survey had resulted in idling of investment of ₹140 crore for five years (2006-11), extra expenditure and recurring expenditure on maintenance of the idling asset.

32. Munirabad–Raichur New Line project - (South Western Railway)

This NL project was originally sanctioned from Mehaboobnagar to Munirabad and was included in the PB of SCR, later as per Railway Board directions the section between Raichur and Munirabad was handed over to SWR on 25/01/2008. The project was taken on Socio-Economic considerations. Detailed Estimate for the line between Ginigera–Raichur was sanctioned vide Board's letter No. 2008/W1/NL/SWR/MR/2 dated 30/11/2013 for ₹1350.91 crore. As on 31/03/2014, 15 per cent of the work was completed. This work also is a cost sharing work with GOK in the ratio of 50:50 with land provided free by GOK.

33. Bagalkot-Kudachi New BG Line project - (South Western Railway)

Originally this work was sanctioned vide PB item 7 of 2010-11 at an anticipated cost of ₹816.14 crore. This is also a cost sharing project with GOK in the ratio of 50:50 with land provided free of cost by GOK. This new line would link the agricultural and backward areas of Dharwad

and Belgaum district covering Ghataprabha and Krishna river valleys. This line also connects two existing main lines Gadag-Hotgi & Londa–Pune. Detailed Estimate of ₹986.30 crore sanctioned vide Railway Board letter dated 04/10/2013.

34. Whitefield-Kolar New Line project - (South Western Railway)

The BG NL work was initially included vide item No. 7a of 2011-12 PB at a cost of ₹341.05 crore. This line would serve as a direct link between WFD to KQZ with a length of about 32 km (through the existing route via Bangarpet). This line would also help in improvement of Bangalore Rural and Kolar Districts of Karnataka apart from providing a shorter lead for passenger and goods traffic from Chittor and Cuddapah side. Detailed Estimate was sanctioned vide letter No. 2009/W1/SWR/WK dated 08/10/2012. This work is a cost sharing of 50:50 with GOK and land provided being provided free of cost.

SWR had ten ongoing projects on cost sharing terms with GoK and GoAP. For five projects, out of nine executed on cost sharing terms with GoK, land is provided free besides sharing the cost. The cost sharing ratio is 50:50 for all the projects except one in which GoK had agreed to bear 2/3 of the cost. It was observed that no Memorandum of Understanding (MoU) was executed between State Governments and Ministry of Railways for these projects. Review of these cost sharing projects revealed that:

1. There was inordinate delay in handing over the land agreed to be provided free by GoK which resulted in time and cost overrun.
2. Due to huge cost overrun of cost sharing projects, attributable to delay in completion, GoK, vide letter No.CM/246/GOI/14 dated 05/07/2014 had urged Ministry of Railways to either fully bear the cost of the projects or reduce the share to be borne by GoK to 1/3 instead of the agreed 50 per cent.

In the absence of a MoU with GoK for timely execution of the project, financial interests of the Railways were not adequately safeguarded. The cost sharing authority's interests were also affected as there was no schedule for execution/ completion of the projects resulting in increased financial liability and non-achieving of intended objectives.

35. Tumkur-Davangere via Chitradurga New BG line project - (South Western Railway)

This project was sanctioned in the year 2011-12 with anticipated cost of ₹913 crore. This is a cost sharing project with GOK in the ratio of 50:50 with land being made available free of cost by GOK. This project is identified as part of Chennai-Bangalore Industrial corridor which needs to be completed to harness the full potential of the proposed corridor. The existing BG line connecting TK to DVG was via ASK, RRB, JRU with a distance of 255.18 km. The proposed line would serve the TK, CTA & DVG districts and would reduce the distance by 55.48 km between UBL and SBC. Detailed estimate was sanctioned by Railway Board vide letter No. 2009/W-1/NL/SWR/TD dated 29/10/2013 for ₹1801.01 crore. The increase in the cost of the project is mainly attributable to change in the scope of work (68.33 per cent) like increase in the height of formation in embankment to accommodate ROB/ RUBs in lieu of LCs and adoption of new track structure as per Railway Board Guidelines.

36. Shimoga –Harihara New BG Line project - (South Western Railway)

Originally included in 2001-12 at a cost of ₹562.74 crore. Detailed estimate at ₹832.47 crore has been sanctioned vide Railway Boards letter No.2010/W-1/NL/SWR/84 dated 29/11/2013. As on 31/03/2014, the work was yet to commence. This work is a cost sharing work with GOK in the ratio of 50:50 with land being made available by GOK free of cost.

37. Bangalore-Sathyamangalam New BG Line project - (South Western Railway)

Bangalore-Sathyamangalam New BG line was sanctioned by Railway Board in the year 1997-98 at an abstract cost of ₹ 225 crore. The Final Location Survey (FLS) was sanctioned by the GM, vide W.193/CN/BNC/SBC/STMLM/1 dated 16/08/1999, at a cost of ₹0.60 crore. Cabinet Committee on Economic Affairs (CCEA) had cleared the project on 04/12/1999 at a cost of ₹640 crore. The FLS could not be completed as permission for a stretch of 58 km, falling under the Tamil Nadu Forest department, was not granted. FLS was not permitted by the CEC in the forest area. Hence, Railway Board vide letter No.96/W.1/NL/SWR/34 dated 14/06/2011 directed to drop the work in reserve forest area and this will give direct Railway facilities providing link from Bangalore to Chamara Nagar via Kanakapura, T-Narasipura and also connects Melkote, Halaguru & Malavalli. GoK agreed to share 50 per cent of cost of the project in addition to providing land free of cost. Accordingly, the detailed estimate for ₹1382.78 crore for Hejjala-Chamra Nagar (152 km) was sanctioned (December 2013). This project was taken on Socio – Economic considerations. The work was yet to commence. An amount of ₹0.68 crore, towards preliminary survey expenses had been booked as at the end of March 2014.

38. Ramanagara–Mysore Doubling –(South Western Railway)

SBC–MYS section (138.25 km) is single line from RMGM. Patch DL of SBC–KGI and KGI–RMGM is already sanctioned and work between SBC–KGI is completed and between KGI–RMGM is in progress. This section has 24 scheduled Express/ Passenger trains running in addition to freight trains. Line capacity utilization is 107.9 per cent with MTCE block. There is a public demand for two more trains during day time as MYS is a tourist place with huge passenger potential. To ease out the congestion, doubling between RMGM–MYS was sanctioned by Railway Board during 2007-08 at a cost of ₹343.20 crore. Revised Estimate at ₹874.54 crore sanctioned by Railway Board includes Electrification.

This project is cost sharing project with GOK in the ratio of 66:33 for the DL cost and 50:50 Electrification cost.

APPENDIX – XII (REF. TO PARA 1.6.10)

STATEMENT SHOWING TOTAL EXPENDITURE INCURRED IN RESPECT OF SPUR-I & II

Sl. No.	CA No. & date	Spur No.	Amount (in ₹)
1.	Con/BB/125 dt.15.03.2007	I	57771211
2.	Con/BB/DBRT dt.20.03.2008	I	47666833
3.	Con/BB/113 dt. 29.01.2007	II	50878594
			156316638

Statement showing details of expenditure incurred in respect of Spur-I

Item No.	Description of works	Quantity	Rate (in ₹)	200 per cent above	Amount (in ₹)
13	Making, supplying, weaving, shaping, wire sausage, ...etc.	1010.2 RM	2950	--	2980090
15/9(II)	Circular Sausage Crate (1606/a/iv)	3620.45 RM	377	--	4094728
15/1(b)	Providing, making & bundeling etc. up to 2m to 3m height in water (1602/b)	1909.44 Sqm	122.5	367.50	701719
15/2	Supplying etc. Empty cement bags (1617/b)	13026 nos	5.35	16.05	209067
15/3	Construction of permeable screen (1618)	15 nos	1040	3120	46800
10	Supplying, filling loose boulder... etc	2397.516 cum	1500	--	3596274
11	Supplying & spreading filter media ....complete	1289.122 cum	990	--	1276230
15/1(a)	Providing, making & bundeling etc up to 2m height in water (1602/a)	1073.3 Sqm	92.50	277.50	297840
15/9(I)	Circular sausage crate (1602/a/iii)	1250.7 RM	765.7	2297.10	2872982
9	Supplying & pitching of shingle boulder hand packed ...etc	3355.99 cum	1860	--	6242141
1	Earthwork in filling...shrinkage	78267.50 cum	129	--	10096507

9(i)	Circular sausage crate (1606/a/iii)	596.2 RM	765.7	2297.10	1369531
9(ii)	Circular sausage crate by boulder (1606/a/iv)	5508.85 RM	377	1131	6230509
				Total:	40014418
		* Add Cost of Rly. Boulder 9729.75 cum@ Rs 1825/-			(+17756793)
		Grand Total:			57771211

Note: Rates of Railway Boulder has been taken from RITES Project Report, April/2006

Statement showing details of expenditure incurred in respect of Spur-II

Item No.	Description of works	Quantity	Rate (in ₹)	160 per cent above	Amount (in ₹)
1	Earthwork in filling layers to form embankment...etc	137957.906 cum	88	--	12140295
1602 NFSR	Providing, making & bundelling etc. up to 2m height in water	4434.91 sqm	122.5	318.5	1412518
1618 NFSR	Construction of permeable screen as per drawing ...etc	327.8 nos	1040.25	2704.65	886584
11	Making, supplying, weaving, shaping, wire sausage ...etc.	6940.399 RM	3000	--	20821197
10	Supplying & spreading filter media of approved quality...etc.	657.277 cum	850	--	558685
9	Supplying & pitching of shingle boulder hand packed ...etc	9412.072 cum	1600	--	15059315
				Total=	50878594

Statement showing the expenditure incurred in connection with the protection work of Spur-I

Sl. No.	Particulars	Amount (in ₹)
1	Total cost of execution of the CA	13057489.81
2	* Cost of the boulder for 18964.024 cum @ ₹1825 per cum	34609343.80
	Total	47666833.61

* Note: Rates of Railway Boulder has been taken from RITES Project Report, April/2006

APPENDIX – XIII (REF. TO PARA 1.6.10)						
STATEMENT SHOWING LOSS FOR INJUDICIOUS CONSTRUCTION OF NORTH GUIDE BUND AND RIVER TRAINING PROTECTION WORKS						
Sl. No.	Description of Work	Quantity executed as per CC-III (in cum)	Rate per cum (in ₹)	per cent below original rate	Rate, after consideration of 14 per cent below (in ₹)	Amount (in ₹)
1	Earthwork in filling in layers to form embankment/sub-bank etc.	1418000	156	14 per cent	134.16	19023888
2	Earthwork in filling with contractor's own earth ...	625000	148	14 per cent	127.28	79550000
9(f)	Carrying and filling loose boulders etc.	41000	467	14 per cent	401.62	16466420
9(g)	Making, supplying, weaving, shaping, wire sausage crates, etc.	7000 RM	1561 per RM	14 per cent	1342.46	9397220
					Total	124437528
	Add: Cost of boulder for 41000 cum @ ₹ 1529.24 per cum					62698840
					Sub-Total	187136368
	Less: Cost of railways earth reused from old location to new location for 200000 cum @ ₹ 134.16 (after consideration of 14per cent below) as per CC bill no. XIX dt. 26.11.10					26832000
					Total	160304368
	* Add: Carrying cost of 200000 cum of Railway earth reused at new location through NFSR item by execution of item no. NFSR/201/e & NFSR/202/e @ ₹15.35/- per cum & ₹ 8.30/- per cum respectively i.e. Total rate for per cum is ₹ 23.65/-					4730000
	Grand Total:					165034368
* Note:- Though it was proposed in the variation statement that 250000 cum of earth was to be reused under the NFSR as Railway earth at the shifted location yet 200000 cum was reused as per CC Bill no.XIX						

APPENDIX - XIV (REF. TO PARA 1.6.10)

CALCULATION SHOWING EXTRA EXPENDITURE DUE TO INCREASE IN THE BRIDGE LENGTH

A) CA value of sub-structure for 34 numbers of span = ₹ 343.90 crore

Therefore, Cost of 5 numbers of span = $5 \times 343.90/34 = ₹50.55$ crore

B) CA value of super-structure for 34 numbers of span = ₹ 987.19 crore

Therefore, Cost of 5 numbers of span = $5 \times 987.19/34 = ₹ 145.15$ crore

C) Total financial implication for sub-structure and super-structure for additional 5 numbers of span = Rs (50.55 +145.15) crore = ₹195.70 crore

APPENDIX – XV (REF. TO PARA 1.6.11)

STATEMENT SHOWING CASES OF PREMATURE TERMINATION OF CONTRACTS AND IN FRUCTUOUS EXPENDITURE

Chota-Udepur-Dhar (WR) project has been stuck up due to non-acquisition of land passing through a tribal stretch. As such, there has been no physical progress in this work and four contracts were fore closed as work could not progress. This has resulted in ₹12.03 crore expenditure incurred on incomplete works.

Tender No.	Value of Contract (₹ in lakh)	Payment made upto 31/03/2014 (₹ in lakh)
DY.CE/BRC/CTD-DHAR/ 1 CANO.DYCE/BRC/CA/261 Date: 26/12/2008	177.77	147.49
DY.CE/BRC/CTD-DHAR/3 CA. NO.DYCE/BRC/CA/293 Date: 04/12/08	950.87	666.04
DY.CE/BRC/CTD-DHAR/4 CA. NO.DYCE/BRC/CA/294 Date: 04/12/2009	897.89	371.51
DY.CE/BRC/CTD-DHAR/9 CA. NO.DYCE/BRC/CA/317 Date: 18/03/2011	93.66	17.56
Total		1202.26

APPENDIX – XVI (REF. TO PARA 1.6.12.2)			
DETAILS OF SANCTION OF LUMDING -SILCHAR GAUGE CONVERSION PROJECT (367.247KM.)			
Sl. No.	Details of Sanctions	Sanctioned Cost (₹ in crore)	Reference to sanction
1.	Lumding – Silchar		
	(i) Lumding – Hatikhali (19.994 Km)	72.94	95/W1/LCT/NF/I/Pt.I dt.2.11.99 & 13.11.2000
	(ii) Hatikhali – Langting (19.130 Km)	63.37	95/W1/LCT/NF/I/Pt.III dt.28.3.2000 & 20.11.2000.
	(iii) Langting – Ditokcherra (89.90 Km)	872.54	2001/W1/GC/NF/4 dt. 17.06.2002
	(iv) Ditokcherra – Chandranathpur (20.020 Km)	152.09	2000/W1/LCT/NF/DTC-CNE dt.14.11.2000
	(v) Chandranathpur – Badarpur (20.158 Km)	54.72	95/W1/LCT/NF/I/Pt.II dated 22.10.99 & 20.11.2000
	(vi) Badarpur – Silchar (29.84 Km)	32.83	95/W1/LCT/NF/I/Pt.I dt.8.9.97
2.	Silchar – Jiribam (50.385 Km)	49.41	95/W1/LCT/NF/I/Pt. dt.20.11.2000
3.	Badarpur – Baraigram (42.74 Km)	56.19	2002/W-1/GC/NF/9 (MME) dt.25.9.03
4.	Baraigram – Kumarghat (75.08 Km)	192.68	95/W-1/NF/GC/II (Pt) dt.20.7.2007
	Civil Engg. - Total	1546.77	
	Other Engg. Estimates	129.99	
	Grand. Total	1676.76	

APPENDIX- XVII (REF. TO PARA 1.6.12.2 A)

STATEMENT SHOWING THE ADDITIONAL PROTECTIVE WORKS TAKEN UP CONCURRENTLY DURING EXECUTION OF EARTHWORK CONTRACTS

CAs executed through CE/CON/MLG				CAs executed through Dy. CE/CON-IV/LMG				
Sl. No.	CA No and date	Description of works	CA value (in ₹)	Sl.No	CA No. and date	Description of works	CA value (in ₹)	Amt. passed (₹ in crore)
1	CON/S-L/985 dt.7.8.2006 (M/s.Shivam)	Earth work in formation for making new bank and e/work in cutting to make profile on diverted alignment as per BG standard, side drains, toe wall and other ancillary works from km. 114/030 to km. 114/920 (new ch.) excluding km. 114/150-510 (for Major Br. No.III/96 and III/97)	1,81,13,750	1	CON/S-L/IV/ 26 dt.27.3.2008 (M/s.D.N. Singh)	Construction of modified side drain and other protection works in between km. 114/512 to km. 114/715 of proposed BG alignment	98,56,52 SCA =Rs. 2 crore	1.52
				2	CON/S-L/IV/20 dt. 28.2.2008 Shri A.K.Thakur	Construction of modified side drains and other protection works in between 114/715 km. to 114/ 925 km	0.67 crore	0.60
				3	CON/S-L/IV/21 dt. 14.3.2008 [M/s.Shivam]	Earth work in cutting to make profile on diverted alignment as per BG standard and other ancillary works from km. 114/745 to km. 114/850	36,54,000/-	0.40
2	CON/S-L/1023 dt.20.9.2006 (M/s.R &L Construction)	Earth work in filling and in cutting for making BG formation, construction of 6 nos. minor Br., side drains and other protection works in between new ch. 119/800 km to 119/950 km and in between new ch.	4,03,38,245/- SCA-2 value = ₹7,90,07,590.23	1	CON/S-L/IV/14 dt.10.1.2008 [M/s.R.L.Construction]	Construction of 1 no. minor bridge, e/work in filling, modified side drains and other protection works in between 119/800 km. to 119/ 950 and in between 122/585 km. to 123/740 km	95,47,310/-	0.94
				2	W/362/CON/L-S/LMG/MB/16 dt. 11.16.2007	e/work in km 119/800 to km 119/950 and in between 122/585 to km 123/740	0.95	-

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		122/585 km. to 123/740 km. between Jatinga Lumpur-new Harangajao – Ditokcherra station as per BG standards on diverted alignment		3	CON/S-L/IV/15 dt.10.1.2008 [M/s. R.L.Construction	Construction of modified side drains and other protection works in between 122/800 km. to 123/ 740 km between New HJO- DTC Station	97,05,950/-	-
3	CON/S-L/773 dt.5.11.2003 (M/s.C .C Construction)	Earth work in formation for making new bank and e/work in cutting to make profile on diverted alignment as per BG standard including construction of 6 nos. of minor Br., side drains, toe wall and other ancillary works from km. 111/020 to km. 112/680 (new ch) Between Jatinga Lumpur to New Harangajao station	11,25,92,89 1.25 SAC-1 vaue = ₹12,57,05,264.5	1	CON/S-L/IV/11 dt.28.12.2007 [M/s.C.C.Constr uction]	Construction of modified side drains and other protection works in between 111/025 km. to 111/ 300 km	76,57,400/-	0.45
				2	CON/SL/IV / 32 dt.16.3.2010	Additional earthworks and protection for the chain-age 111/300 to 112/650	1..99	1.46
4	CON/S-L/554 dt.20.12.2001 (M/s.A .C Nayak)	Earth work in formation for making new bank and e/work in cutting to make profile on diverted alignment as per BG standard including construction of 7 nos. of minor Br., side drains, toe wall and other ancillary works from km. 125/820 to km. 127/880 (new ch) Between New Harangajao to Ditokcherra station	5,90,76,917/-	1	CON/SL/IV/ 31 dt. 9.2.2010	Protection work at Br. No.111/126 to 111/127 and provision of catch water drain from 122/600 to 124/400	0.62	0.61

5	CON/S-L/553 dt.20.12.2001 (M/s.A.C. Nayak)	Earth work in formation for making new bank and e/work in cutting to make profile on diverted alignment as per BG standard including construction of 6 nos. of minor Br., side drains, toe wall and other ancillary works from km. 115/420 to km. 117/000 & km. 117/516 to km.119/420 (new ch) Between Jatinga Lumpur to New Harangajao station	4,35,21,826/-	1	CON/L-S/IV/24 dt. 20.3.2008 [M/s.Nayak Infrastructure]	Earth work in formation including extension of the minor br. (Br. No. III/102)from ch. 115/850 to ch. 116/602 ,side drains and other protection works	0.97	0.85
				2	CON/S-L/IV/19 dt.28.2.2008 [Shri A.K.Thakur]	Construction of 2 nos. of minor bridge (Br. No.III/105 and III/111) at ch. 117/598 and 120/575 and e/work in filling, side drain and other protection works	1.32	1.32
				3	CON/SL/IV/ 37 dt.28.3.2011	Modified side drain at km 118/790 to 118/860	1.48	0.99
6	CON/S-L/566 dt.11.02.2002 (M/s. Nayak Engineering works)	Earth work in formation for making new bank and e/work in cutting to make profile on diverted alignment as per BG standard including construction of 1 no. minor Br., side drains, toe wall and other ancillary works from km. 121/300 to km. 121/800 (new ch)	1,52,37,864/- SCA-2 dt.3.1.2006= 3,07,82,997.04	1	CON/S-L/IV/36 Dt. 20-12-2010 [M/s. A.C. Nayak]	Construction of modified side drains and other protection works in between 121/300 km. to 121/ 600 km	0.86	0.51
7	CON/S-L/558 dt.3.01.2002 (M/s. Nayak)	Earth work in formation for making new bank and e/work in cutting to make profile on diverted alignment as per BG standard	3,62,08,108.50/- SCA-2 dt.30.12.2005 = 4,50,19,019.	1	CON/S-L/IV/22 dt.20.3.2008 [M/s. Nayak Infrastructure]	Construction of modified side drains and other protection works in between 123/960 km. to 124/ 150 km	87,47,920/-	0.87

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	Engineering works)	including construction of 3 nos. minor Br., side drains, toe wall and other ancillary works from km. 123/940 to km. 125/760 (new ch)	30	2	CON/SL/IV/ 35 dt.20.12.2010 [M/s.. Nayak Infrastructure]	Construction of modified side drains and other protection works in between 124/620 km. to 124/ 700 km	36,88,500/-	0.48
				4	CON/S-L/IV/23 dt.20.3.2008 [M/s.. Nayak] Infrastructure	Construction of modified side drains and other protection works in between 124/150 km. to 124/ 325km	82,10,600/-	0.71
8	CON/S-L/752 dt.1.08.2003 (M/s. Hari Construction)	Earth work in formation for making new bank and e/work in cutting to make profile on diverted alignment as per BG standard including construction of 4 nos. minor Br., side drains, toe wall and other ancillary works from km. 120/040 to km. 121/300 (new ch)	42775505	1	CON/S-L/IV/25 dt.20.3.2008 [M/s. A.C. Nayak]	Construction of modified side drains and other protection works in between 120/270 km. to 121/ 300 km	9451425/-	0.25
				2	CON/S-L/IV/13 dt.10.1.2008 [M/s. R.L.Construction]	Construction of 1 no. of minor bridge (Br. No.III/110) at ch. 120/193 and e/work in filling, side drain and other protection works	7874750/-	0.98
				3	CON/S-L/IV/27 dt.19.7.2008 [M/s. R.L.Construction]	Additional e/work for flattering of slope to make BG profile extension of 1 no. minor Bridge and other protection work etc. from km. 120/100 to km. 121/300	19772200/-	1.82
..								19.22

APPENDIX-XVIII (REF. TO PARA 1.6.12.2)				
LOSS OF ₹ 5.90 CRORE (₹ 21.71 LAKHS FROM A AND ₹ 5.69 CRORE FROM B BELOW) ON ACCOUNT OF DISMANTLING OF DEFORMED TUNNEL OF 28 M OF TUNNEL NO. 8 AND SUBSEQUENT RECONSTRUCTION				
A. Operation of NS item in the CA schedule for dismantling of deformed 28 m Tunnel in Tunnel No. 8 (Statement-I)				
Item No.	Description of item	Quantity	Rate (in ₹)	Total amount (in ₹)
NS-01	Breaking and removing of concrete lining	210 cum	7853 per cum	1649130
NS-02	Cutting, dismantling and removing of permanent steel supports	40 MT	13053 per MT	522120
			Total	₹ 2 1.71 lakh
B. Reconstruction of deformed 28 m Tunnel in tunnel No. 8 (STATEMENT-I)				
Schedule of Item No.	Description of item	Quantity	Rate (in ₹)	Total amount (in ₹)
6	Concrete lining including backfill concrete	5500 cum	5760 per cum	31680000
5(a)	Supply of permanent steel supports	530 MT	38700 per MT	20511000
5 (b)	Manufacturing ,leading and erecting permanent steel supports	530 MT	9000 per MT	4770000
			Total	₹ 5.69 crore

APPENDIX – XIX (REF. TO PARA 1.6.12.2)

LOSE DUE TO FAILURE OF TUNNEL NO. 12 (STATEMENT –II)

After construction of 28m tunnel in Face-2 side , the entire portion of tunnel was collapsed due to excessive pressure of earth resulting in deformation of tunnel on account of squeezing, distortion and twisting of supports and during which an amount of ₹13.10 crore was already paid to the agency. The contract was, thereafter, terminated at the Risk and Cost of the agency. Thus, the entire expenditure paid to contractor was an in fructuous expenditure and had been taken into account as loss to the railway.

The new agency took two years to complete the rectification works of collapsed tunnel by dismantling the old concrete steel supports and reconstruct of the same which included an expenditure of ₹ 0.12 crore towards dismantlement of damaged structures as detailed below:

Item No.	Description of item	Quantity	Rate (in ₹)	Total amount (in ₹)
NS-01	Breaking and removing of concrete lining	110 cum	7800 per cum	858000
NS-02	Cutting, dismantling and removing of permanent steel supports	27MT	13050 per MT	352350
			Total	12.10 lakh

APPENDIX – XX (REF. TO PARA 1.6.12.2)

STATEMENT SHOWING THE EXTRA EXPENDITURE DUE TO COLLAPSE OF WELL FOUNDATION

1.	Expenditure incurred as per original CA No. CON/S-L/620 dated 31.5.02 for substructure of Bridge No.572	₹11.17 crore
2.	The contract value of the subsequent contract for construction of sub structure of bridge was	₹19.03 crore
3.	Expenditure incurred for construction of Bridge against the contract at Sl. No. 2	₹16.99 crore.
4.	Total expenditure (Sl. No. 1 and 3)	₹28.16 crore
5.	Original Contract value	₹13.56 crore
6.	Additional Expenditure (Sl.No. 4 - Sl.No. 5)	₹14.60 crore

APPENDIX I (PARA REFERENCE 2.1)				
BASIS OF SAMPLE SELECTION				
Sl. No.	Area	Monetary Limits	Criteria for selection	Period Covered
1	Contracts finalised during the year	Upto ₹1 crore	6 contracts on two divisions for each year	2011-12 to 2013-14
		₹1 crore to ₹5 crore	8 contracts on two divisions and 2 contracts on construction for each year	
		Above ₹5 crore for division and ₹5 crore to ₹10 crore	2 contracts on two divisions and 4 contracts on construction for each year	
		Above ₹10 crore	4 contracts on construction for each year	
2	Contracts in progress	15 <i>percent</i> each for Open Line and Construction		As on 31-3-2014
3	Completed contracts	25 <i>percent</i> each for Open Line and Construction		2013-14
4	Discharged tenders	100 <i>percent</i> for tenders valuing above ₹ 1 crore		2011-12 to 2013-14
5	Tenders valuing above ₹8 crore/ ₹10 crore	100 <i>per cent</i>		2011-12 to 2013-14
6	Contracts short-closed/foreclosed	100 <i>per cent</i> for tenders valuing above ₹1 crore		2011-12 to 2013-14
7	Contracts terminated	100 <i>per cent</i> for tenders valuing above ₹1 crore		2011-12 to 2013-14
8	Arbitration awards settled	10 cases in Construction and in Open Line separately		2011-12 to 2013-14

APPENDIX II (PARA REFERENCE 2.1)		
SAMPLE CHECKED IN AUDIT		
Sl. No.	Description	Sample checked
1.	Tenders executed	1215
2.	Contracts in Progress as on 31.03.14	927
3.	Contracts completed during 2013-14	313
4.	Discharged tenders	647
5.	Tenders valuing above ₹8 crore/ ₹10 crore	321
6.	Contracts short-closed/fore-closed	173
7.	Contracts terminated on account of Contractor failure	265
8.	Arbitration awards settled	214

APPENDIX I (PARA REFERENCE- 4.1)

STATEMENT SHOWING THE WORKS TAKEN UP FOR MODERNIZATION OF SIGNALING AND TELECOMMUNICATION WHICH WERE FUNDED BY FOREIGN LOAN

- I. Replacement of signaling gears by solid state interlocking (5 stations) on Ghaziabad-Kanpur
- II. Replacement of Signal equipment by electronic interlocking (7 stations) on Ghaziabad-Tundla section
- III. Replacement of signaling gears by route relay interlocking at Tundla
- IV. Automatic block signaling on Aligarh – Ghaziabad section
- V. Modernization of signals on Ghaziabad-Kanpur route
- VI. Replacement of Cable by optic fibre cable Delhi – Ghaziabad-Panki section
- VII. Replacement of gears by electronic interlocking (19 stations) on Ghaziabad-Kanpur section
- VIII. Replacement of signaling gears by electronic interlocking (15 stations) in Ghaziabad-Kanpur section
- IX. Track circuiting with automatic block signaling in golden quadrilateral/Rajdhani and Shatabdi route- Aligarh-Kanpur route
- X. Indoor equipment, recording systems & control equipment in connection with control centre at Aligarh.
- XI. Indoor equipment recording system & control equipment in connection with control equipment in connection with control centre at ETW

APPENDIX II (PARA REFERENCE - 4.2)

DESIGNATIONS OF OFFICERS ASSOCIATED WITH THE FUNCTIONING OF DEDICATED INDIAN RAILWAY PROJECT MANAGEMENT UNIT (IRPMU)

MoR is responsible for functional planning, tendering, contracting and overall supervision of the execution of the S&T contracts on turn-key basis. The matters related to IRPMU are dealt at MoR by S&T Directorate headed by Member (Electrical). He is assisted by Advisors (Signal) and Executive Directors (Signal Project). Member Electrical works as the project co-ordinator and is responsible for taking major policy decisions, authorisation of major project revisions, monitoring the overall project progress, approval for tender evaluation, decision on procurement, co-ordination with other projects in IR.

General Manager (NCR) is responsible to support the Member Electrical on project related issues, approval of project expenses in co-ordination with the consultant up to an amount fixed by IR, revision and approval of the project schedule, the disbursement of money, all procurement, documentation for the project works and quarterly progress reports to Member Electrical and KfW.

The head of IRPMU is Chief Administrative Officer (CAO) The CAO/IRPMU is assisted by several officers while performing various duties assigned to IRPMU. These officers are Chief Signal & Telecommunication Engineer (CSTE), CSTE/Planning, Chief Project Manager (CPM), CPM/ Train Protection and Warning System (TPWS), Chief Personnel Officer (CPO), Chief Traffic Manager (CTM) and Financial Advisor & Chief Accounts Officer (FA&CAO) besides Engineers of various levels posted at Aligarh, Allahabad and Kanpur.

APPENDIX III (PARA REFERENCE - 4.4.1)

**THE REASONS FOR CONSIDERING THE OFFER OF M/S. ASC AS
"UNSUITABLE"**

The Financial bids of only the technically acceptable offers were to be opened for further evaluation. and ranking. The consultant was to evaluate the offers of tenderers considering maximum weightage of 70 points for technical bid and 30 points for financial bid. The Consultant found that offers of only two bidders (M/s Alcatel Consortium –L1 and M/s Siemens-L2) were technically suitable. Out of these, the L 2 tenderer turned out to be the preferred bidder due to highest scoring. The Consultant found technically unsuitable the offers of remaining two tenderers [M/s IGE Consortium (M/s IGEC) and M/s Ansaldo consortium (M/s ASC)] and recommended their exclusion in further evaluation process. However, Consultant was instructed by the Tender Committee to consider the financial offer of M/s ASC also. Since the objective of first packet was to scrutinize the capability of the bidder, the opening of the second packet of unsuitable bidder was against the principle of pre-qualification criteria. The Consultant did not accept the financial bid of M/s ASC also on the plea that the bidder did not provide the relevant schedules, left out supplies and services outlined in the technical offer besides non-supply of the “grand total” of all the schedules. Tender Committee (TC) observed that although the Consultant had taken the bid price of M/s ASC as basis for awarding scores to other bidders in their financial bids, they had not considered the financial bid of M/s ASC.

APPENDIX IV (PARA REFERENCE - 4.4.1)

DEFICIENCIES IN FINALISATION OF GLOBAL TENDER AND AWARD OF CONTRACT TO M/S ASC FOR EXECUTION OF KFW FUNDED WORKS

Name of the Contractor	Scores on Credential bid (Out of 100)	Scores on Credential bid (Out of 70)	Scores on Financial bid (Out of 30)	Total Scores (Col. 3 & 4)
1	2	3	4	5
M/s Siemens AG	81.45	57.01	21.38	78.39
M/s Alcatel SEL AG	75.00	52.50	18.26	70.76
M/s ASC	67.50	47.25	Nil (being technically unsuitable)	Nil (technically unsuitable)

The TC made M/s ASC offer comparable through adjustment in the financial offer by increasing the offered amount by Euro 24,337,604. The score awarded by TC were as under:

Name of the firm	Scores on Credential bid (Out of 100)	Scores on Credential bid (Out of 70)	Scores on Financial bid (Out of 30)	Total Scores (Col. 3 & 4)
1	2	3	4	5
M/s Siemens AG	84.57	59.41	16.26	75.67
M/s Alcatel SEL AG	83.56	58.49	12.98	71.47
M/s Ansaldo Signal Consortium	83.53	58.47	30.00	88.47

Railway Board recommended that the contract may be awarded to M/s ASC after taking an undertaking that In the event of Microlok II system was not found as per CENELEC Safety Integrity Level 4 (SIL4) requirements for heavy mixed traffic, the contractor was to supply another approved SSI system acceptable to IR at no extra cost. As a result, Letter of Acceptance (LOA) to the contractor was issued with proviso. The contract agreement was to be signed only after successful review of assessment of Microlok II interlocking system as per CENELEC standards by TUV inter traffic.

Further, although KfW had informed IR (September 2005) that Microlok II interlocking system would not be a real reference for comparing the routes on IR with routes on Bangladesh/ Malaysia. Even, IR decided to undertake as a first step to assess the Microlok II interlocking system as per CENELAC, European Committee for Electro-technical Standardization. They entered into the contract (February 2006) while the final assessment report was received in August 2006. This was in contradiction of proviso in the LOA and against the spirit of decision taken by Railway at a later stage to undertake as a first step the assessment of specific interlocking work.

APPENDIX V (PARA REFERENCE 4.4.2.2)

REASONS FOR DELAY IN EXECUTION OF S&T WORKS AND THE NECESSITY FOR EXTENSION IN COMPLETION PERIOD

Railway Board had decided in November 2006 to use dual detection i.e. using AFTC and Axle counters working in parallel at 12 stations and associated block sections and only DC track circuits at stations. This had negative impact on SIP, Selection Table, interface circuits, application logic preparation etc, and necessitated the preparation of cable core allocation charts and field designs. The power supply was required at LSC and stations besides procurement of material and assessment of hazards of such system. By that time, three sections had been commissioned without using dual detection. Railway experienced a lot of problem on account of failures of AFTC, mainly due to theft and vandalism, resulting in failures of Auto signals and detention of trains. As a result, dual detection was considered a necessity of the route (January 2007). However, decision in this regard could be communicated by MoR in April 2009 only. As such, the design and field work for providing dual detection at all stations and block sections was started after this decision. Besides dual detection, there had been changes in the facility at almost all stations like additional shunt signals and provision of Stand Humps/dead ends etc. At stations where auto signalling work had not been taken by that time, yard remodelling had already been planned (HRS, TDL, ETW and FZD stations) impacting on the completion time of the contract. Further, Railways had been considering the execution of work of 3rd line in Aligarh Jn-Ghaziabad section and KfW project works in integrated manner and a decision on that was awaited. The decision to provide and install 13 Child Exchanges at various locations was communicated to contractor in February 2008. The contractor requested to take a decision for remaining Exchanges also. The desired decision was communicated in June 2009 only.

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Gauge Conversion

Annexure-1 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (₹ 150 Crore and above)as on 31 March 2014										
Sl. No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)		Rate of Return in percent		Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
1	CR	Amravati Narkher new BG line(138 Km)	1993-94	1993	Jul-12	-	10.41%	-	571.09	154.68
2		Ahmednagar-Beed-Parli-Vajjnath (261.25 Km)	1995-96	1996	Apr-98	Not fixed	(-)0.208%	N.AV.	299.28	2486.06
3		Wardha-Nanded (via Yavatmal-Pusad) (284km)	2008-09	2010	Not fixed	NA	(-) 2.684%	N.AV.	68.25	2432.68
4		Belapur Seawood Uran - Electrified Double Line.	1996-97	1996	2000	Phase-I - 12/2013 and Phase-II - 06/2014.	N.AV.	N.AV.	372.89	1543.84
5	ER	Lakhshmikantapur - Namkhana Chandanagar	1987-88	1993	N.AV.	N.AV.	4.40	Not Revised	139.90	404.28
		MM for a) Kakadwip Budakhali [5km] and	2011-12	Not yet started	N.AV.	N.AV.	11.00	Not Revised	0.00	0.00
		b) Chandanagar Bakhali [17.2 km]	2011-12		N.AV.	N.AV.	(-) 9.00			
6		Deoghar - Sultanganj incl. Banka to Bitiah Road [147 km]	2000-01	2002	N.AV.	N.AV.	(-)7.58	Not Revised	524.99	73.00

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Gauge Conversion

Annexure-1 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (₹ 150 Crore and above) as on 31 March 2014										
Sl. No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)		Rate of Return in percent		Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
7		Tarakeswar-Bishnupur	2000-01	2002	N.AV.	N.AV.	(-) 22.00	Not Revised	537.49	879.59
		a) extension upto Dhaniakhali	2009-10	2010	N.AV.	N.AV.	(-) 22.00	Not revised	0.00	0.00
		b) Arambagh-Irphala & New MM to	2010-11	Not yet started	N.AV.	N.AV.	(-) 4.90	Not revised	0.00	0.00
		c) Irphala-Ghatal[11.2 km],	2011-12	Not yet started	N.AV.	N.AV.	(-) 4.90	Not revised	0.00	0.00
		d) Arambagh-Champadanga[23.3 km]	2011-12	Not yet started	N.AV.	N.AV.	(-) 15.00	Not Revised	0.00	0.00
8		Dumka-Rampurhat (Phase-II of Rampurhat-Mandarhill via Dumka Project [130 km])	1995-96	2000	2001-02	Feb,2013 (Dumka Rampurhat as per MOU dt. 28.2.2012)	(-) 11.00	Not Revised	785.04	165.06
8A		Rampurhat-Murarai (MM) [29.48km] 3rd line	2011-12	Not yet started	Dec'2017	Not Revised	(-) 11.00	Not Revised	0.00	0.00
9		Bariarpur-Mananpur via Kharagpur, Lachmipur-Barhat [67.78km]	2007-08	Not yet started	N.AV.	N.AV.	(-) 9.00	Not Revised	6.46	238.90

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Gauge Conversion

Annexure-1 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (₹ 150 Crore and above) as on 31 March 2014										
Sl. No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)		Rate of Return in percent		Cumulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
10		Sultanganj-Katuria via Asarganj, Tarapur & Belhar [74.8 km]	2007-08	2009	N.A.V.	N.A.V.	(-) 8.00	Not Revised	6.48	279.08
11		Tarakeswar- Magra [51.95 km]	2010-11	Not yet started	N.A.V.	N.A.V.	(-) 48.00	Not Revised	1.29	524.26
		MM for Tarakeswar-Furfura Sharif [21.75km]	Not furnished	Not yet started	N.A.V.	N.A.V.	(-) 10.00	Not Revised	0.00	0.00
12		Hasnabad-Hingalgarj [14 km]	2010-11	Not yet started	N.A.V.	N.A.V.	(-) 12.00	Not Revised	5.04	258.00
13		Deoghar-Dumka [72.25 km]	1998-99	2003	Not Assessed in PET Survey	Feb'2011 (as per MOU dt. 28.2.2012)	5.00	Not Revised	390.01	239.83
14		Hansdiha-Godda [30 km]	2011-12	Not yet started	2015-16	Not Revised	(-) 38.00	Not Revised	0.87	265.70
15		Pirpainti - Jasidih [97 km]	2011-12	Not yet started	N.A.V.	N.A.V.	(-) 10.00	Not Revised	0.09	915.88
16	ECR	Sakari - Hasanpur	1996-97	August, 1997	Target date not fixed		1.32	Not revised	243.69	81.31
17		Muzaffarpur-Sitamarhi(63 KM)	1997-98	June,2002	N.A.V.	N.A.V.	(-) 3.72	Not revised	514.88	31.26
18		Khagaria- Kuseswar Asthan (44 KM)	1996-97	Nov,2001	Target date not fixed		Negative	N.A.V.	127.07	411.64
19		Const. of Rly. Bridge over River Ganga at Monghyr.	1997-98	Nov,2002	31.12.2007	30.06.2015	1.545	0.745	1341.09	1020.78

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Guage Conversion

Annexure-1 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (₹ 150 Crore and above)as on 31 March 2014										
Sl. No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)		Rate of Return in percent		Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
20		Patna Ganga Bridge with linking between Patna & Hajipur. (19 KM)	1997-98	January,2002	31.12.2007	30.06.2015	5.60	Not revised	2071.80	849.66
21		Ara- Sasaram (98KM)	1997-98	May,2002	N.AV.	N.AV.	4,82	Not revised	319.75	2.12
22		Giridih- Koderma (Phase-I)150 Km	1996-97	October,2000	N.AV.	N.AV.	N.AV.	N.AV.	540.94	227.94
23		Rajgir -Hasua -Tilaya(46 Km)	2001-02	Jan-02	N.AV.	N.AV.	N.AV.	N.AV.	324.68	65.32
24		Koderma - Ranchi (189 Km)	1998-99	February,2002	N.AV.	N.AV.	N.AV.	N.AV.	1775.34	1181.87
25		Koderma - Tilaiya(68 Km)	2001-02	November,2004	N.AV.	N.AV.	N.AV.	N.AV.	219.54	198.63
26		Koshi Bridge	2003-04	May,2003	Target not fixed	(-) 2.34	Not revised	295.35	46.06	
27		Hajipur-Sagauli	2003-04	Nov-03	Target date not fixed		(-) 6.25	-5.35	196.21	332.44
28		Chapra Muzaffarpur (84.65 Km)	2006-07	Aug,2006	Target date not fixed		Negative	N.AV.	106.99	271.57
29		Motihari-Sitamarhi (76.7 KM)	2006-07	Not available	Target date not fixed		(-) 11.1	Not revised	4.41	206.59
30		Darbhanga-Kusheshwar Asthan (70.14 KM)	2005-06	May,2007	Target date not fixed		(-) 4.6	Not revised	4.95	200.05

Annexure-1 (Para Reference 1.6.2)									
Status of all on going Projects in Indian Railways (₹ 150 Crore and above) as on 31 March 2014									
Sl. No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)	Rate of Return in percent		Cumulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
31		Bihta-Aurangabad via Anugrahnarayan Road(118.45 Km)	2007-08	Detailed estimate under preparation	Target date not fixed	N.AV.	N.AV.	1.69	324.51
32		Sitamarhi-Jayanagar-Nirmali Via Sursand	2008-09	October,2008	Target date not fixed	(-) 5.61	Not revised	16.86	661.76
33		Muzaffarpur-Katra Oral Janakpur Road(66.55KM)	2008-09	March,2009	Target date not fixed	(-) 7.32	Not revised	1.48	611.11
34		Ara-Bhabua Road(122.0 KM)	2008-09	September,2008	Target date not fixed	N.AV.	N.AV.	0.40	489.68
35		Araria-Supaul(92.0KM)	2008-09	Under collection	Target date not fixed	(-) 4.91	Not revised	0.19	304.22
36		Dehri-On-Sone-Banrari(36.4KM)	2008-09	April,2008	Target date not fixed	(-) 4.15	Not revised	3.66	102.54
37		Gaya-Daltonganj Via Rafiganj(136.88)	2008-09	April,2008	Target date not fixed	(-) 8.47	Not revised	1.14	444.11
38		Gaya-Chatra/Natesar(97 KM)	2008-09	February,2009	Target date not fixed	(-) 12.64	Not revised	13.88	535.87
39		Nawada-Laxipur(137 KM)	2008-09	April,2008	Target date not fixed	(-) 5.31	Not revised	0.00	620.57
40		Kursela-Bihariganj(35 KM)	2008-09	Aug,2008	Target date not fixed	(-) 12.71	Not revised	0.39	192.17
41		Muzaffarpur-Darbhanga(66 KM)	2008-09	Aug,2008	Target date not fixed	(-) 7.3	Not revised	0.58	280.72

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Guage Conversion

Annexure-1 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (₹ 150 Crore and above) as on 31 March 2014										
Sl. No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)		Rate of Return in percent		Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
42	ECoR	Khurda Road-Bolangir New Line (289 Kms)	1994-95	1994-95	Not furnished	31.03.2015 (3 sections)	14.40	9.15	295.87	1699.38
43		Talcher - Bimlagarh (154 Kms)	2003-04	2003-04	2012-13	31.12.2015 (1 section)	(-) 3.32	10.18	133.243	677.537
44	NR	Nangaldam- Talwara (83.74 Km)	1981-82	1982-83	N.AV.	Not Fixed	Negative (figure N.AV.)	N.AV.	383.89	670.94
45		USBRL	1994-95	1995	Aug-08	Dec-17	N.AV.	N.AV.	9608.90	9955.93
46		Abohar-Fazilka (42.17 Km)	1997-98	2002-03	N.AV.	31.07.12	(-)7.44	N.AV.	230.84	2.26
47		Chandigarh-Ludhiana (112 Km)	1997-98	1998-99	2005	30.04.13	(-)2.26%	N.AV.	985.35	114.30
48		Rewari- Rohtak (81.26 Km)	2003-04	2006-07	2011-12	Not Fixed	(-) 14.31	Not revised	532.39	197.26
49		Jind- Sonapat (88.90 Km)	2003-04	2006-07	2012-13	30.09.14	(-) 21.26	(-) 15.64	544.86	203.53
50		Chandigarh- Baddi (33.23 Km)	2007-08	Not yet started	N.AV.	N.AV.	N.AV.	N.AV.	0.00	327.95
51		Deoband- Roorkee (27.45 Km)	2007-08	2008-09	2012-13	Not Fixed	(-) 1.96	0.68	159.86	177.05
52		Bhanupali- Bilaspur (63.1 Km)	2008-09	2009-10	N.AV.	Not Fixed	(-) 11.48	N.AV.	40.79	2926.30
53		Rishikesh-Karanprayag (125.09 Km)	2010-11	2010-11	N.AV.	Not Fixed	(-) 6.3	Not revised	11.61	4284.00
54		Qadian-Beas (39.68 Km)	2011-12	2012-13	N.AV.	Not Fixed	N.AV.	N.AV.	1.54	194.59

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Gauge Conversion

Annexure-1 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (₹ 150 Crore and above) as on 31 March 2014										
Sl. No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)		Rate of Return in percent		Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
55		Unchahar- Amethi (66.17 Km)	2012-13	2013-14	N.AV.	Not Fixed	N.AV.	N.AV.	1.10	365.58
56		Rohtak- Meham- Hansi (68.8 Km)	2012-13	2012-13	N.AV.	31.03.17	(-) 16.55	(-) 15.7	8.50	286.50
57		Delhi- Sohna- Nuh- Alwar (104 Km)	2013-14	Not yet started	Not finalized	N.AV.	N.AV.	N.AV.	0.00	1238.90
58		Yamuna Nagar-Chandigarh (91 Km)	2013-14	Not yet started	Not finalized	N.AV.	N.AV.	N.AV.	0.00	875.90
59		Faizabad-Lalganj (116 Km)	2013-14	Not yet started	Not finalized	N.AV.	N.AV.	N.AV.	0.00	653.90
60		Hisar- Sirsa (93 Km)	2013-14	Not yet started	Not finalized	N.AV.	N.AV.	N.AV.	0.00	399.90
61	NER	Kichha-Khatima	Jan-04	...	NA	NA	(-) 3.24	NA	0.15	208.25
62		Maharajgang-Masarakh-Rewa Ghat	Jan-04	2008	NA	NA	0.33	NA	191.83	286.28
63		Hathua-Bhatani	Feb-05	2005	NA	NA	(-) 7.78	NA	151.26	78.77
64		Chhitauni-Tamkuhi Road	Dec-06	2007	NA	NA	(-) 7.03	NA	27.13	216.65
65		Kapilvastu-Basti via Bansi	Feb-13	...	NA	NA	1.14	NA	0.00	643.00
66		Anandnagar-Ghugli via Maharajgang	Feb-13	...	NA	NA	6.97	NA	0.00	307.00
67	NFR	Eklakhi-Balurghat (BG) (87.11 km) & Gazole- Itahar (28 km), M.M for Raiganj- Itahar (21.80), Itahar-Buniadpur (39 km) NL	1.4.1983	1983-84	Not fixed	Not fixed	(-) 5.17%	(-) 9.45%	252.4	651.22

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Gauge Conversion

Annexure-1 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (₹ 150 Crore and above) as on 31 March 2014										
Sl. No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)		Rate of Return in percent		Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
		Ph-I Eklakhi-Balurghat	1.4.83	1983-84	Not fixed	Completed and commissioned on 30.12.04				
		Ph-II Raiganj-Itahar	1.4.11	2011-12	31.3.14	Not fixed				
		Ph-III Itahar-Buniyadpur	1.4.12	2012-13	31.3.15	Not fixed				
		Ph-IV Gazole-Itahar	Mar'08	2007-08	Not fixed	31.3.16				
68		Dudhnoi- Mendipathar (BG) (15.5 km)	1.4.92	1992-93	Not fixed	March'14	Not Done	Not Done	220.68	27.07
69		Kumarghat- Agartala (109 km)	Jul-96	1996-97	Mar'07	March'16	(-) 11.98%	Not Revised	955.943	286.307
70		Harmoti- Naharlagun (21.75 km)	Feb-97	1996-97	Not fixed	Jan'14	(-)6.37%	(-) 6.38%	406.33	0.07
71		Bogibeel Bridge with linking Lines (73 km)	Sept, 1997	1997-98	31.3.07	Dec'16	10.42%	Not revised	3092.23	1903.96
72		Jiribam- Imphal (Tupul) (110.625 km)	1.4.2003	2003-04	31.3.09	March'19	(-)6.98%	(-)9.05%	2023.82	3972.18
73		New Mainaguri- Jogighopa (257 km) and NMX-New Domoni Y connection and GC of New Malda Jn- Changrabanda (62.214 km)	1.4.2000	2000-01	March'06	Mar'16	(-)11.91%	(-)9.01%	1549.52	933.52
74		Araria- Galgalia (Thakurganj) (107.75 km)	1.4.07	2007-08	31.3.11	Not fixed	(-)11.40%	(-)8.72%	43.94	488.93
75		Tetelia- Byrnihat (21.5 km)	1.4.06	2006-07	31.3.09	Mar'17	(-)19.92%	(-)7.95%	181.86	248.47

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Guage Conversion

Annexure-1 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (₹150 Crore and above) as on 31 March 2014										
Sl. No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)		Rate of Return in percent		Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
76		Dimapur- Kohima (88 km)	1.4.06	2006-07	31.3.12	Mar'20	(-)26.44%	Not Revised	9.24	2437.33
77		Agartala - Sabroom (112 km)	1.4.08	2008-09	31.3.12	Mar'17	(-)28.70%	(-)7.21%	546.61	1194.39
78		Jalalgarh- Kishenganj	1.4.08	2008-09	31.3.12	Not fixed	4.34%	Not revised	2.22	357.64
79		Bhairabi- Sairang	1.4.08	2008-09	31.3.14	Mar'20	(-)5.89%	(-)7.86%	171.5	2221.98
80		Sivok- Rangpo	1.4.08	2008-09	31.3.14	Not fixed	(-)7.44%	(-)10.34%	82.802	3297.77
81		Jogbani- Biratnagar	1.4.10	2010-11	31.3.12	Mar'16	(-)9.11%	Not Revised	181.11	60.41
82		Byrnihat- Shillong	1.4.10	2010-11	31.3.16	Not fixed	(-)8.34%	Not Revised	3.37	3922.42
83		Kaliaganj- Buniadpur	1.4.10	2010-11	31.3.13	Not fixed	(-)10.51%	Not Revised	21.89	200.33
84		Balurghat- Hilli	1.4.10	2010-11	31.3.13	Not fixed	(-)9.13%	(-)9.27%	39.67	202.55
85		Murkongselek- Pasighat	1.4.11	2011-12	31.3.14	Not fixed	(-)8.01%	(-)6.33%	1.25	544.39
86		Agartala- Akhaura	1.4.12	2012-13	31.3.15	Not fixed	Not Done	Not Done	0	252
87		Dimapur- Tizit (257 km)	1.4.13	2013-14	31.3.18	Not fixed	(-)6.18%	Not Revised	0	4165.23
88	NWR	Dausa-Gangapur City (92.67 km)	1996-97	May-03	not fixed	Not Applicable	(-)9.52	not revised	242.34	167.74

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Gauge Conversion

Annexure-1 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (₹ 150 Crore and above) as on 31 March 2014										
Sl. No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)		Rate of Return in percent		Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
89		Ratlam-Dungarpur via Banswara (176.47 km)	2011-12	Nov-11	May-16	not revised	3.88	not revised	22.1	2060.65
90		Thaiyat Hamira - Sanu (58.5 km)	2013-14	yet to commence	not fixed	Not Applicable	14.74	not revised	0	236.93
91		Ajmer - Kota (Nasirabad-Jalindri) (145 km)	2013-14	yet to commence	not fixed	Not Applicable	(-)6.61	not revised	0.00	822.00
92		Pushkar - Merta (59 km)	2013-14	yet to commence	not fixed	Not Applicable	(-)7.65	not revised	0.00	323.00
93	SR	Karur-Salem	1996-97	N.AV.	Section already commissioned	19.47	3.73	771.81	31.72	
94		Angamali-Sabarimala	1997-98	11/2006	N.AV.	N.AV.	0.103	NO	137.41	1501.25
95		Tindivanam-Tiruvannamalai	2006-07	N.AV.	Not fixed	(-) 5.37	- 5.041	61.41	165.26	
96		Tindivanam-Nagari	2006-07	N.AV.	Not fixed	(-) 5.08	1.291	183.05	393.7847	
97		Attipattu-Puttur	2008-09	Not commenced	NAP	(-) 1.757	13.21	2.96	512.6545	
98		Erode-Palani	2008-09	Frozen	NAP		1.913	NO	1.49	600.723
99		Chennai-Cuddalore via Mahabalipuram	2008-09	N.AV.	Not fixed		(-) 6.150	NO	2.04	770.458
100		Madurai-Tuticorin via Aruppukottai	2011-12	N.AV.	Not fixed		(-) 4.287	16.814	0.48	591.33
101		Sriperumbudur-Guduvanchery	2013-14	N.AV.	Not fixed		2.008	NO	0.01	838.90
102	SCR	Gadwal-Raichur	1998-99	04/2000	31-03-2009	31-03-2017	0.55	Not revised	293.17	23.17

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Guage Conversion

Annexure-1 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (₹ 150 Crore and above) as on 31 March 2014										
Sl. No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)		Rate of Return in percent		Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
103		Peddapalli- KRMR-NZB	1993-94	01/1995	31-03-2004	31-03-2015	13.38	6.33	678.03	247.27
104		Nandyal-Yerraguntla	1996-97	02/2003	31-03-2009	31-03-2015	15.85	2.98	680.69	202.31
105		Bidar-Gulbarga	1997-98	12/2003	31-03-2009	31-03-2014, 31-03-2015	1.09	6.93	520.61	323.54
106		Jaggayapeta-Mellacheruvu with MM for MACU-Janpahad	2006-07	03/2007	31-03-2012	31-03-2016	38.64	35.56	178.78	134.46
107		Munirabad - Mahabubnagar	1998-99	04/2000	31-03-2000	31-03-2015	1.30	6.99	279.28	365.72
108		Kotipalli-Narsapur	2000-01	Not yet commenced	31-03-2009	31-03-2017	(-) 0.51	6.83	0.03	1045.17
109		Macherla-Nalgonda	1997-98	Not yet commenced	31-03-2009	31-03-2015, 31-03-2017	5.86	3.53	0.98	479.02
110		Manoharabad-Kothapalli	2006-07	Not yet commenced	31-03-2010	31-03-2016	0.49	1.73	0.76	790.83
111		Cuddapah-Bangalore	2008-09	04/2012	31-03-2014	31-03-2016	18.78	10.68	162.24	1887.76
112		Bhadrachalam Road-Sattupalli	2010-11	Not yet commenced	31-03-2016	Not applicable	34.60	Not revised	0.21	337.29
113		Nadikudi-Srikalahasthi	2011-12	Not yet commenced	31-03-2016	Not applicable	21.18	19.92	0.66	1312.82
114		Gudur-Durgarajapatnam	2011-12	Not yet commenced	31-03-2018	Not applicable	(-)12.56	23.94	0.16	283.38
115		Bhadrachalam Road-Kovvur	2012-13	Not yet commenced	31-03-2018	Not applicable	28.08	Not revised	0.00	923.23
116		Cumbum-Proddutur	2013-14	Not yet commenced	31-03-2017	Not applicable	16.94	Not revised	0.00	829.00

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Gauge Conversion

Annexure-1 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (₹ 150 Crore and above) as on 31 March 2014										
SLNo	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)		Rate of Return in percent		Cumulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
117		Kondapalli-Kothagudem	2013-14	Not yet commenced	31-03-2018	Not applicable	16.94	Not revised	0.00	723.00
118		Manuguru-Ramagundam	2013-14	Not yet commenced	31-03-2020	Not applicable	7.34	7.97	0.00	1112.00
119	SER	Bowaichandi-Arambagh (31 km)	2010-11	N.AV.	Dec-12	Dec-15	(-) 4.74%	0	34.01	233.36
120		Digha-Jaleswar (41 km) with new material modification for Digha-Egra (31 km)	2010-11	N.AV.	Dec-12	Mar-16	17.59	0	7.08	644.09
		(i) 1st MM: Digha - Egra	2011-12	N.AV.	June-15	June-15	(-) 5.04			
121		Howrah-Amta (Inclu. Bargachia-Champadanga)	1974-75	N.AV.	Mar-07	Mar-15	(-) 0	-	179.37	356.03
		(i) 1st MM: Amta-Bagnan	2009-10	N.AV.	Jan-10	Not fixed	19.69			
		(ii) 2nd MM: Champadanga-Tarakeswar	2009-10	N.AV.	April-10	Not fixed	(-)40.49			
		(iii) 3rd MM: Jangipara - F.Sharif	2011-12	N.AV.	Dec-14	Not fixed	(-) 4.40			
122		Tamluk-Digha	1984-85	N.AV.	Completed		2.53/ 3.02	0.55	456.816	617.64
		(i) 1st MM : Deshpran-Nandigram	2009-10	N.AV.	July-11	June-15	-			
		(ii) 2nd MM:Kanthi-Egra	2011-12	N.AV.	June-15	June-15	(-)4.60			
		(iii) 3rd MM:Nandigram - Kandiamari	2012-13	N.AV.	Not fixed					
		(iv) 4th MM: Nandakumar - Balaipanda	2012-13	N.AV.	Not fixed					

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Gauge Conversion

Annexure-1 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (₹ 150 Crore and above)as on 31 March 2014										
Sl.No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)		Rate of Return in percent		Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
123		Badutola-Jhargram via Lalgarh	2011-12	N.AV.	Not fixed		(-) 5.71	-	0.90	289.55
124	SECR	Dallirajahara-Jagdarpur(235km)	1995-96	1998-99	31.10.16	-	16.25	-	149.46	652.93
125		Wadsa-Gadchiroli (49.5Km)	2011-12	2011-12	31.12.20	-	(-) 8.19	-7.46	0.2609	232.4
126		Raigarh(Mand Colliery) Bhupdeopur (63Km)	2013-14	2013-14	NF (Being EBR)	-	26.33	26.11	0.00	379.08
127		Gevra Road-Pendra Road(121.7km)	2013-14	2013-14	NF (Being EBR)	-	21.16	22.39	0.00	838.02
128		Raipur-Jharsuguda (310Km)	2013-14	2013-14	NF	-	16.70	17.58	0.00	2161.00
129	SWR	Bagalkot – Kudachi (142 kms)Project code - 11535 / 91714	Apr-10	May-12	Not fixed	---	16.74	12.83	40.03	946.27
130		Bangalore-Hassan via Shravanabelagola (166 kms)	Apr-96	May-97	Not fixed	---	(-) 0.77	-1.42	854.07	435.85
131		Bangalore – Satyamangalam (260 kms)	1997-98	Work yet to be commeced	Not fixed	---	(-) 0.45	---	0.68	1382.1
132		Chickballapur – Gowribidanur (44 kms)	Apr-13	Work yet to be commeced	Not fixed	---	3.68	---	0.00	367.77
133			Apr-13	Work yet to be commeced	Not Fixed	---	8.00	---	0.00	692.43

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Gauge Conversion

Annexure-1 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (₹ 150 Crore and above) as on 31 March 2014										
Sl. No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)		Rate of Return in percent		Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
134		Ginegera – Raichur (165 kms) of SWR portion.	Apr-07	Apr-08	Not Fixed	---	Not Available	Not Available	101.50	1249.41
135		Hubli – Ankola (167 kms)	Apr-97	Jul-97	Not Fixed	---	6.75	---	105.26	2209.74
136		Kadur – Chickmagalur – Sakleshpur (93 kms)	Apr-96	Sep-96	Not fixed	---	4.15	---	345.80	543.77
137		Kottur – Harihar (65 kms)	1995-96	1995-96	Not fixed	---	14.18	---	370.23	97.44
138		Marikuppam – Kuppam (23.7 kms)	Apr-12	Work yet to be commenced	Not fixed	---	3.68	---	0.15	279.39
139		Rayadurg – Tumkur via Kalyandurga (206 kms)	Apr-07	Aug-11	Not fixed	---	7.79	---	276.53	693.81
140		Shimoga – Harihar (78.66 kms)	Apr-11	Work yet to be commenced	Not fixed	---	9.78	---	0.58	831.99
141		Srinivasapura – Madanapalli (75 kms)	2013-14	Work yet to be commenced	Not Fixed	---	5.48	7.77	0.00	466.65
142		Tumkur – Chitradurg – Davangere (199.7 kms)	Apr-11	Work yet to be commenced	Not fixed	---	11.30	20.50	0.63	1800.38

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Gauge Conversion

Annexure-1 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (₹ 150 Crore and above) as on 31 March 2014										
Sl. No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)		Rate of Return in percent		Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
143		Whitefield – Kolar (52.9 kms)	Apr-11	Work yet to be commenced	Not fixed	---	8.95	17.58	0.32	348.53
144		Gadag-Wadi (252 Kms)	2013-14	Work yet to be commenced	Not fixed	---	9.96	8.24	0.31	1921.69
145	WR	Dahod-Indore via Sardarpur, Jhabua & Dhar (200.97 Km)	2007-08	Apr-08	Not fixed	Not fixed	10.77%	10.77%	160.43	1481.74
146		Chhota- Udepur-Dhar(157 kms)	2007-08	Aug-09	Mar-13	Revised TDC of full project is not fixed	(-) 1.99%	10.77%	145.82	1204.68
147	WCR	Lalitpur - Singrauli New line Project -541 Kms	1998-99	Jun-02	29.03.22	29.03.23	0.26%	Not calculated	606.72	1024.25
148		Ramganj Mandi- Bhopal (BG) New line Project - 262 Kms	2000-01	Nov-05	31.03.09	31.03.20	(-) 1.10%	Not calculated	234.5	991.4
	Total								43223.79	120262.39
Gauge Conversion (GC)										
1	CR	Latur-osmanabad kurduwadi miraj gauge conversion(374 Kms)	93-94	1993	Not fixed	NA	4.60%	N.A.V.	970.24	9.47
2	ER	Bardhaman-Katwa [51.52 km]	2007-08	2009	2011-12	Not Revised	10.00	Not Revised	225.81	870.56
		MM for a) Katwa-Bazarsau [30.59 km]- Doubling,	2011-12	Not yet started	N.A.V.	N.A.V.	a) (-) 9.00	Not Revised	0.00	0.00
		b) Katwa[Dainhat]-Mateswar [34.4 km]	2011-12				b) (-) 16.00			
		c) Negum-Mangalkot [8.60 km]	2011-12				Not worked			

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Gauge Conversion

Annexure-1 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (₹ 150 Crore and above) as on 31 March 2014										
Sl. No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)		Rate of Return in percent		Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
	ER	d] Manteswar-Memari[35.6km]-NL	2011-12				d] (-) 16.00			
3	ECR	Sakri-Laukha bazar-Nirmali-Saharsa-Forbesganj(206.06KM) *	2004-05	December,2006	Target date not fixed		*SKI-NMA-JJP-LKU - 1.08 * SHC-FBS 2.65	Not revised	338.97	911.93
4		Manasi -Saharsa- Dauram Madhepura -Purnia(143 Km)	1996-97	May-97	Target date not fixed		11.57	Not revised	456.14	21.75
5		JayNagar - Darbhanga-Narkatiaganj (268 KM)	1997-98	May-02	N.AV.	N.AV.	14.15	Not revised	733.66	309.90
6		Jaynagar-Bijlapura incl-Ext-Bijlapura-Bardibas(Nepal)	2009-10	Execution portion of the work transferred to IRCON	Target date of completion is yet to be fixed		-6.15	Not revised	34.56	505.04
7	NCR	Dholpur-Sirmutra	Mar'11	Oct'13	02/19	--	--	--	1.64	2028.86
8	NER	Gonda-Baharaich -As phase-I of Gonda-Baharaich -Sitapur-Lucknow	Sep-97	2007	NA	NA	3.39	NA	60.34	122.66
9		Gonda-Gorakhpur loop with Anandnagar-Nautanwa	Sep-97	2002	28.02.14	31.03.14	10.32	NA	780.91	82.32
10		Kanpur-Kasganj-Mathura & Kasganj-Bareilly-Lalkua incl. material modification for extention from Bareilly	Feb-97	1997	31.03.14	31.12.14	19.15	NA	1561.60	72.62

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Guage Conversion

		to Lalkua and Mandhana to Brahmavart								
Annexure-1 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (₹ 150 Crore and above) as on 31 March 2014										
Sl. No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)	Rate of Return in percent			Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
11		Kaptanganj-Thawe-Siwan-Chhapra	Feb-99	2002	28.02.14	31.03.15	(-) 1.03	NA	519.50	231.39
12		Aunrihar-Jaunpur	Jan-04	2004	NA	NA	6.1	NA	172.75	3.01
13		Bhojipura-Tanakpur via Pilibhit	Jun-07	2008	NA	NA	1.49	NA	79.94	115.70
14		Lucknow- Pilibhit via Sitapur, Lakhimpur	Sep-11	...	31.03.16	NA	14.49	NA	13.17	702.58
15	NFR	Lumding- Dibrugarh including link branch lines of Haibargaon-Mairabari & Senchoa- Silghat (56)	1.4.93	1993-94	Not fixed	Completed in Dec'09	(-)8.24%	Not Revised	833.47	137.75
16		Lumding- Silchar including alignment between Migrendisa-Ditokchera and extension from Badarpur to Baraigram, M.M Baraigram- Dulabcherra (29.4 km) and Karimganj	July'1996	1996-97	31.3.05	Mar'16	(-)5.64%	Not Revised	4052.51	1132.93
17		Katakhal- Bhairavi (84 km)	1.4.98	1998-99	31.3.01	Mar'16	(-) 13.20%	(-) 12.07 %	133.58	84.78

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Gauge Conversion

18		New Jalpaiguri- Siliguri- New Bongaigaon- including linked branch lines(147 km), M.M of Chalsha-Naxal (19.85 km) New Line and Rajabhatkhowa-Jayanti New Line (15.13 km)	1.4.97	1997-98	31.3.02	Not fixed for 2 MM Projects	(+)12.33 3%	(-) 9.37%	1038.29	289.49
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Annexure-1 (Para Reference 1.6.2)

Status of all on going Projects in Indian Railways (₹ 150 Crore and above)as on 31 March 2014

Sl. No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)		Rate of Return in percent		Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
19		Rangia- Murkongselek along with linked fingers line project (510.33 km)	1.4.03	2003-04	Mar'09	30.3.14	(-) 7.31%	(-) 10.56 %	2664.89	654.28
20		Aluabari Road- Siliguri (76 km)	1.4.06	2006-07	31.9.08	Completed	(-) 17.60%	(-) 4.58%	417.49	67.51
21		Katihar- Jogbani (108 km) & Barsoi- Radhikapur (54.26 km), M.M Raiganj- Dalkhola (43.43 km) NL	1.4.98	1998-99	March'02	Not fixed	(+) 3.952%	(-) 9.13%	742.34	280.3
22	NWR	Ajmer-Chittaurgarh-Udaipur (300 km), incl. material modifications for extension from Udaipur to Umra (11 km) and Mavli Jn.-Bari Sadri (82.01 km)	1996-97	Nov-99	Not made Available	Not Applicable	(+)14.05	not revised	557.65	297.51
23		Sri Ganganagar-Sarupsar Canal Loop (Phase-I) (116 km)	2003-04	2003	31.03.11	not revised	(-)13.25	not revised	241.39	38.2
24		Jaipur-Ringus-Churu & Sikar-Loharu (320.04 km)	2008-09	Mar-11	not fixed	Not Applicable	(+)2.92	not revised	278.14	375.05
25		Suratpura-Hanumangarh-Sri Ganganagar (240.95 km)	2008-09	Aug-09	not fixed	Not Applicable	(+)7.72	not revised	475.85	40.38

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Guage Conversion

26		Sadulpur-Bikaner & Ratangarh-Degana (394.35 km)	2007-08	Mar-08	not fixed	Not Applicable	(-2.44	not revised	787.75	84.47
27	SR	Tiruchchirappalli-Nagore-Karaikkal with extension to Nagappattinam-Velankanni-Tiruturaipundi including new material modification of Karaikkal-Peralam New Line	1995-96 to 2013-14	N.AV.	N.AV. (All sections commissioned except Nagapattinam-Tiruturaipoondi & Karaikal - Peralam New lines) *			NO	576.17	113.59

Annexure-1 (Para Reference 1.6.2)

Status of all on going Projects in Indian Railways (₹ 150 Crore and above) as on 31 March 2014

Sl. No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)	Rate of Return in percent		Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
28		Quilon-Tirunelveli-Tiruchendur & Tenkasi-Virudhunagar	1997-98	N.AV.	N.AV. (All sections commissioned except Sengottai-Punalur)	7.130	0.060	834.61	209.00
29		Madurai-Rameswaram	1997-98	N.AV.	N.AV. (Section already commissioned)	3.458	NO	369.80	75.35
30		Thanjavur-Villupuram	1998-99	N.AV.	N.AV. (Section already commissioned)	14.980	9.226	121.99	541.249
31		Cuddalore-Salem via Vriddhachalam	1999-00	N.AV.	N.AV. (Section already commissioned except Kallakurichi-Chinnasalem New line)	21.532	NO	266.66	404.20
32		Trichy-Manamadurai	2000-01	N.AV.	N.AV. (Section already commissioned)	12.790	NO	394.34	40.97
33		Villupuram-Katpadi	2000-01	N.AV.	N.AV. (Section already commissioned)	0.441	NO	637.55	297.319
34		Dindugul-Pollachi-Palghat	2006-07	N.AV.	3/31/2015	5.117	8.097	748.44	202.00
35		Mayiladuthurai-Karaikudi&Tiruturaipundi-Agasthiampalli	2007-08 to 2012-13	N.AV.	Not fixed	7.530	NO	401.60	759.80

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Guage Conversion

36		Manamadurai-Virudhunagar	2006-07	N.AV.	N.AV. (Section already commissioned)		14.416	8.62	199.80	39.71
37		Madurai-Bodinayakkanur	2008-09	N.AV.	Not fixed		(-) 1.514	1.120	13.54	251.31
38	SCR	Akola – Khandwa (Western Rly PB No.6 of 2013-14)	2008-09	Not yet commenced	N.AV.	31-12-2015	25.02	Not revised	25.90	1902.42
39		Guntur-Guntakal-Kalluru	1992-93	04/2007	31-12-2000	31-03-2015, 31-03-2016	N.AV.	N.AV.	594.71	104.76
40		Mudkhed – Adilabad	1995-96	09/2002	31-03-2004	3/31/2016	No ROR made	No ROR made	321.91	34.29

Annexure-1 (Para Reference 1.6.2)

Status of all on going Projects in Indian Railways (₹ 150 Crore and above) as on 31 March 2014

Sl. No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)		Rate of Return in percent		Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
41		Dharmavaram-Pakala	1997-98	10/2003	N.AV.	31-03-2014, 31.3.2016	4.49	21.59	658.86	45.25
42	SER	Ranchi-Lohardanga (90km)	1996-97	N.AV.	Initially not fixed when the MOU was signed with state government on 19.2.2002 the TDC was in a time span of 5 years	Dec-15	6.96	(-)1.24	375.00	99.13
43		Rupsa-Bangiposi	1995-96	N.AV.	Completed		2.46	0.00	176.86	1.9
		(i) 1st MM: Buramara - Chakulia	2008-09	N.AV.	Not fixed		17.72	-	0.00	
44		Bankura - Damodar Valley	1998-99	N.AV.	Completed		(-) 0.71	0.00	479.9	943.63

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Guage Conversion

		(i) 1st MM: Rainagar - Masagram	2002-03	N.A.V.	Dec-08	Completed	(-)238.48	-		
		(ii) 2nd MM: Bankura - Mukutmonipur	2005-06	N.A.V.	Not fixed	Dec-14	(-) 5.43	-		
		(iii) 3rd MM: Bowchandi- Khana	2005-06	N.A.V.	Not fixed		-	-		
		(iv) 4th MM: Mukutmonipur - Uprasol	2011-12	N.A.V.	June-15	Dec-16	(-) 5.05	-		
Annexure-1 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (₹ 150 Crore and above)as on 31 March 2014										
Sl. No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)		Rate of Return in percent		Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
		(v) 5th MM: Bankura - Purulia	2011-12	N.A.V.	Mar-16	Mar-16	-	-		
		(vi) 6th MM: Mukutmonipur - Jhillimilli	2012-13	N.A.V.	Not fixed		-	-		
45	SECR	Jabalpur-Gondia incl. Balaghat-Katangi(285 km)	1996-97	1996-97	Feb'13'	31.12.19	7.75	-	674.78	1037.90
46		Chhindwara-Nagpur (149.522 Km)	2005-06	2005-06	31.12.16	-	(-) 5	-	429.06	663.66
47		Chhindwara-Mandla Fort(182.25 Km)	2010-11	2010-11	31.12.18	-	(-) 2.3	-	53.25	737.72
48	WR	Pratapnagar-Chhota-Udepur (99.27 KM)	2005-06	Aug-06	Not fixed	Not fixed	3.35%	3.35%	290.08	0.00
49		Bharuch- Samni-Dahej (62.36 KM)	2006-07	not available	Aug-10	Sep-11	9.20%	9.20%	0	332.00
50		Bhildi-Viramgam (157 KM)	1990-91	Sep-07	Not fixed	Not fixed	not available	not available	200.23	389.19

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Guage Conversion

51		Rajkot-Veerval-Wansjalta to Jetalsar NL Veeravalto Somnath (281 KM)	1994-95	Not available	Mar-08	3/31/2010	11.37%	11.37%	461.85	469.52
52		Surendranagar-Bhavnagar-Dhola Dhasa Mahuva to Pipavav	1996-97	Sep-03	Feb-08	6/30/2010	13.48%	13.48%	387.53	171.55
53		Ratlam-Mhow-Khandwa-Akola(472.64 kms)	2008-09	3/23/2010	Not fixed	Revised TDC of full project is not fixed	11.33%	11.33%	318.37	1102.88

Annexure-1 (Para Reference 1.6.2)

Status of all on going Projects in Indian Railways (₹ 150 Crore and above)as on 31 March 2014

Sl. No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)	Rate of Return in percent			Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
54		Ahmedabad-Himmatnagar-Udaipur 299.2 Km	2008-09	Not commenced	3/30/2013	Not Fixed	15.01%	15.01%	56.72	1158.62
55		Rajpipla-Ankleshwar (62.89 KM)	2006-07	Aug-08	Mar-11	Mar-12	not available	not available	234.98	0.00
56		Bhuj-Naliya 101.35 KM	2008-09	Not commenced	Not fixed	Not fixed	not available	not available	2.08	466.54
57		Miyagam-Karjan-Dabhoi-Samlaya(96.46 Km.)	2011-12	Not commenced	Not fixed		9.81%	9.81%	0.7	439.18
58		Ahmedabad-Botad(170.48 Km.)	2012-13	Not commenced	Not fixed	Not fixed	not available	not available	2	565.18
59		Dhasa-Jetalsar(104.44 Km.)	2012-13	Not commenced	Not fixed	Not fixed	5.83%	5.83%	2	374.59
	Total								28483.85	23444.86

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Guage Conversion

DOUBLING										
1	CR	Panvel-Pen Doubling Project (35km)	2006-07	2008	March'2011	Jan.'2014	13.50%	14.23%	218.04	62.21
2		Pen-Roha Doubling Project (40Km)	2007-08	2008	March'2011	Feb.'14	13.50%	15.29%	196.74	51.3
3		Wardha (Sewagram) - NGP (3rd line) (76.3Km)	2012-13	Not commenced	Not fixed	Not fixed	9.89%	15.18%	3.9	287.35
4		Kalyan kasara -3 rd line (67.62Km)	2011-12	Not commenced	Not fixed	Not fixed	7.25%	14.38%	3.51	271.06
5	ER	Sonarpur-Canning [14.96 km]	2000-01	2002	N.AV.	N.AV.	(-) 10.00	Not Revised	52.87	222.67
6		Kalinarayanpur-Krishnanagar	2000-01	2003	N.AV.	N.AV.	(-) 21.00	Not Revised	228.87	733.31
Annexure-1 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (₹ 150 Crore and above)as on 31 March 2014										
Sl. No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)	Rate of Return in percent			Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
7		A]Krishnanagar-Shantipur [12 km] - GC , b] Krishnanagar-Chartala [13 km] - NL, c] Naihati-Ranaghat -3rd line, d] Nabadwipghat-Nabadwipdham with extn. To BB Loop [9.58 km]	a] & b] 2001-02, c] 2008-09, d] 2010-11	a) & b) 2006 2010 c) d) Not yet started	N.AV.	N.AV.	a] (-) 23.00 b] (-) 13.00 c] (-) 16.00, d] (-) 17.00	Not Revised	N.AV.	0.00
8		Chandpara-Bongaon	2003-04	2006	N.AV.	N.AV.	a] less than 1.00	Not Revised	71.46	127.77
9		a] Extension to Chandabazar with New MM for b] Bongaon-Poramahesthala [20 km-NL] & c] Chandabazar-Bagdah [13.86 km] - NL	a] 2009-10 b] & c] 2011-12	Not yet started	N.AV.	N.AV.	a] & c] (-) 14.00, b] (-)15.00	Not Revised	0.00	0.00

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Gauge Conversion

10		Pandabeswar-Chinpai [21.41 km]	2004-05	2007	N.A.V.	N.A.V.	11.00	Not Revised	133.79	147.65
11		Chinpai-Sainthia	2005-06	2008	N.A.V.	N.A.V.	11.00	Not Revised	121.31	496.22
12		Pirpainti - Bhagalpur [59.06 km]	2011-12	2013	2016-17	2015-16	(-) 8	Not Revised	13.05	315.25
13		a) Tinpahar-Sahibganj [37.81 km] as Ph-1 of doubling of Tinpahar-Bhagalpur	2009-10	2011	March, 2015	Dec, 2015	11.20	Not Revised	84.96	101.40
14		Ghutiari Sharif-Canning with extension upto Bangankhali	2009-10	2011	N.A.V.	N.A.V.	(-) 15.00	Not revised	134.00	60.54
		MM for a) Bhangankhali - Basanti [14.2 km] & b) Basanti-Jharkhali [23 km] - NL	2011-12	Not yet started	N.A.V.	N.A.V.	a) & b] (-) 15.00	Not revised	0.00	0.00

Annexure-1 (Para Reference 1.6.2)

Status of all on going Projects in Indian Railways (₹ 150 Crore and above) as on 31 March 2014

Sl. No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)	Rate of Return in percent			Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
15		Dakshin Barasat-Lakshmikantapur [19.68 km]	2009-10	2011	N.A.V.	N.A.V.	N.A.V.	N.A.V.	105.14	155.60
		MM a) Joynagar to Raidighi [20 km] - NL b) Joynagar-Durgapur [32 km]	2009-10 2011-12	Not yet started	N.A.V.	N.A.V.	a) N.A.V., b] (-) 14.00	Not Revised	0.00	0.00
16		Magrahat-Diamond Harbour [19.67 KM]	2009-10	2011	N.A.V.	N.A.V.	N.A.V.	N.A.V.	116.91	57.99
		MM for a) Sangrampur - Krishanchandapur [25 km], b) Diamond Harbour[Gurudasnagar] - Bahrahat [21 km] - NL, c] Diamond Harbour- Kulpi (17.25 KM) - NL	a) & b] 2011-12, c] 2012-13	Not yet started	N.A.V.	N.A.V.	a) (-) 17.00, b] (-) 20.00, c] Not worked out	Not revised	0.00	0.00

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Guage Conversion

17		krishnanagar-Bethuadahari [27.92 km]	2009-10	2011	N.A.V.	N.A.V.	(-) 7.00	Not Revised	113.07	33.24
18		Liluah- Dankuni 3rd line with extension to Furfura Sharif	2009-10	2011	N.A.V.	N.A.V.	6.30	Not Revised	115.76	219.33
19		Katwa - Patuli [17.7 km]	2010-11	2012	N.A.V.	N.A.V.	(-) 10.50	Not Revised	157.41	478.17
		MM for Ahmedpur-Katwa [51.92 km] - GC	2011-12	2013	N.A.V.	N.A.V.	(-) 6.00	Not Revised	N.A.V.	0.00
20		Dankuni-Chandanpur - 4rth Line[25.41 km] as the 1st Phase of Dankuni-Shaktigarh-4rth line	2010-11	2012	N.A.V.	N.A.V.	(-) 15.00	Not Revised	3.73	195.72
21		Sainthia-Tarapith - 3rd line	2011-12	2013	Sept,2016	Not Revised	16.00	Not Revised	15.84	177.34
22		Plassey-Jiaganj [54.29 km]	2011-12	2013	N.A.V.	N.A.V.	(-) 35.00	Not Revised	12.78	204.74

Annexure-1 (Para Reference 1.6.2)

Status of all on going Projects in Indian Railways (₹ 150 Crore and above)as on 31 March 2014

Sl. No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)	Rate of Return in percent		Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)	
23		Boinchi -Shaktigarh [25.83 km]- 3rd line	2011-12	2013	N.A.V.	N.A.V.	(-) 44.00	Not Revised	1.20	172.19
24		Princep Ghat-Majerhat [4.98 km]- Circular Railway	2011-12	Not yet started	N.A.V.	N.A.V.	N.A.V.	N.A.V.	1.10	278.84
25		Bandel- Boinchi [30.53 km] - 3rd line	2011-12	2013	N.A.V.	N.A.V.	(-) 11.00	Not Revised	6.19	235.74
26		Bazar Sau-Azimganj Jn [42.15 km]	2012-13	Not yet started	N.A.V.	N.A.V.	(-) 9.00	Not Revised	0.00	255.14
27		Monigram - Nimita [34.30 km]	2012-13	Not yet started	N.A.V.	N.A.V.	(-) 9.00	Not Revised	0.00	250.43

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Gauge Conversion

28	ECR	Chapra-Hajipur (59 KM)	1999-2000	Feb,2002	N.A.V.	N.A.V.	17.77	N.A.V.	169.40	22.82
29		Begusarai-Khagaria Doubling (40.38 Km)	2005-06	March 2006	N.A.V.	N.A.V.	14.00	Not Revised	160.85	33.86
30		Garhwa Road - Ramna	2013-14	Work is yet to commence	31.12.2017	Not revised	36.00	Not revised	0.00	363.52
31		Danea-Ranchi Road Patch doubling	2013-14	Work is yet to commence	Target date of completion not fixed		56.00	Not revised	0.00	262.97
32		Jarangdih Danea- patch doubling	2013-14	Work is yet to commence	Target date of completion not fixed		55.00	Not revised	0.00	267.99
33		HJP - Ramdualu Nagar (47.72 k.m.)	2013-14	August, 2013	31.12.2018	Not revised	16.00	Not revised	0.05	367.12
34	ECoR	Jharsuguda - Rengali Doubling (25.60 Kms)	2005-06	2005-06	Not furnished	31.03. 2015	14.28	27.36	207.024	-6.024

Annexure-1 (Para Reference 1.6.2)

Status of all on going Projects in Indian Railways (₹ 150 Crore and above) as on 31 March 2014

Sl. No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)		Rate of Return in percent		Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
35		Delang-Puri Doubling (28.7 Kms)	2010-11	2010-11	31.03.2015	31.05.2015	(-) 1.25	Not furnished	63.991	170.709
36		Sambalpur- Talcher Doubling.	2010-11	2010-11	Not fixed	31.12.2014	28.91	Not Revised	12.451	222.249
37		Vizianagaram - Kottavalasa 3rd line (34.70 kms)	2006-07	2006-07	Not fixed	30.09.2015	21.90	16.8	222.732	62.138
38		Bhadrak -Nergundi 3rd Line (80 Km)	2012-13	2012-13	Not fixed	Not fixed	28.8	26.55	0.661	836.669
39		Khurda Road - Barang 3rd Line (35 km)	2003-04	Not furnished	Not furnished	31.12.2014	16.80	Not furnished	219.68	1.32

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Gauge Conversion

40		Cuttack-Barang Doubling (14.27 Kms)	2003-04	Not furnished	Not furnished	30.06.2014	6.90	Not furnished	215.83	-15.83
41		Rajathgarh - Barang doubling (27 km)	1999-00	Not furnished	Not furnished	31.12.2014	17.26	Not furnished	298.92	-23.42
42		Jakhapura - Haridaspur 3rd Line (25 Kms)	2006-07	Not furnished	Not furnished	31.12.2014	10.16	Not furnished	218.48	25.86
43		Sambalpur - Titlagarh doubling (182 Kms)	2006-07	Not furnished	Not furnished	31.03.2017	14.28	18.28	35.555	915.285
44		Raipur - Titlagarh (203 Kms)	2007-08	Not furnished	Not furnished	28.02.2016	21.12	Not furnished	114.48	643.62
45		Banspani-Daitari-Tomka-Jakhapura (180 Kms)	2010-11	Not furnished	Not furnished	31.12.2015	25.62	Not furnished	354.75	588.2
46	NR	Jalandhar-Pathankot-Jammu Tawi (211.26 Km.)	1997-98	2002-03	N.A.V.	31.03.15	27%	Not Revised	837.70	20.00

Annexure-1 (Para Reference 1.6.2)

Status of all on going Projects in Indian Railways (₹ 150 Crore and above) as on 31 March 2014

Sl. No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)		Rate of Return in percent		Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
47		Dayabasti-Grade Separator (6 Km)	1999-2000	2006-07	Not finalized	N.A.V.	N.A.V.	Not Revised	53.64	89.62
48		Hapur-Kankather (42.71 Km)	2003-04	2003-04	N.A.V.	N.A.V.	19.76	Not Revised	164.69	3.18
49		Utretia-Zafrabad (148 Km)	2006-07	2007-08	N.A.V.	N.A.V.	21.3	Not Revised	277.91	822.74
50		Tuglakabad- Palwal 4 th line (33.5 Km)	2006-07	2006-07	N.A.V.	30.06.14	N.A.V.	Not Revised	234.04	33.95
51		Jakhal- Mansa (45.2 Km)	2008-09	2008-09	N.A.V.	31.12.14	25	Not Revised	141.36	25.90

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Gauge Conversion

52		Mansa- Bhatinda (53 Km)	2009-10	2009-10	N.A.V.	31.06.15	24	Not Revised	88.77	293.89
53		Ambala Cantt- Dappar (22.71 Km)	2010-11	2010-11	N.A.V.	31.12.15	N.A.V.	Not Revised	104.65	208.42
54		Anand Vihar-Tilak Bridge 3rd& 4th line (9.77 Km)	2012-13	2012-13	N.A.V.	31.03.17	N.A.V.	Not Revised	0.68	294.18
55		Meerut- Muzaffar Nagar (55.47 Km)	2012-13	2012-13	Not finalized	N.A.V.	N.A.V.	Not Revised	0.33	376.44
56		Hardwar-Laksar (27 Km)	2012-13	2012-13	Not finalized	N.A.V.	N.A.V.	Not Revised	0.12	328.47
57	NCR	Kanpur-Jhansi (by RVNL) *	12-13	NA	NA	NA	0.00%	0.00%	41	756.3
58	NER	Aunrihar-Manduadih Patch doubling	Feb-11	2013	NA	NA	14.92	NA	45.47	154.28

Annexure-1 (Para Reference 1.6.2)

Status of all on going Projects in Indian Railways (₹ 150 Crore and above)as on 31 March 2014

Sl. No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)		Rate of Return in percent		Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
59		Chhapra-Ballia Patch doubling	Feb-12	...	NA	NA	NA	NA	0.33	294.67
60		Bhatni-Jiradei	Feb-06	2007	31.10.12	NA		NA	168.45	19.55
61		Barabanki-Burhwal Patch doubling	Feb-07	2007	NA	NA	14.16	NA	153.90	1.10
62		Gorakhpur Cant-Baitalpur	Feb-06	2006	NA	NA	15.01	NA	158.75	22.21
63	NFR	New Guwahati-Digaru- Patch Doubling (29.81 km) (Phase-I)	1.4.07	2007-08	Not fixed	Completed	NA	(+) 8.97%	147.01	35.89

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Guage Conversion

64		Ambari- Falakata- New Mainaguri (36.52 km)	1.4.11	2011-12	Not fixed	Mar'16	(+) 3.35%	Not Revised	76.18	235.94
65		New Coochbehar- Samuktula Road (29.02 km)	1.4.11	2011-12	Not fixed	Mar'16	(-) 11.54%	(-) 4.74%	34.33	175.44
66		Lumding- Hojai Patch Doubling	1.4.12	2012-13	Not fixed	Not fixed	Not Done	Not Done	1.11	362.95
67		New Coochbehar- Gumanihat	1.4.12	2012-13	Not fixed	Not fixed	(-) 7.43%	(+) 1.81%	1.1	282.45
68		NBQ-RNY_KYQ doubling Project	1.4.13	2013-14	31.03.2019	Not fixed	(+) 7.75%	Not Revised	0	1798
69	NWR	Rewari-Manheru (69.02 km)	2011-12	Not made Available	Not made Available	Not made Available	(+)6.35	not revised	27.09	346.52
70		Rani - Marwar Jn.- Patch doubling (54.50 km)	2012-13	yet to commence	Not made Available	Not made Available	(+)16.49	not revised	0.12	288.85

Annexure-1 (Para Reference 1.6.2)

Status of all on going Projects in Indian Railways (₹ 150 Crore and above)as on 31 March 2014

Sl. No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)	Rate of Return in percent			Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
71		Rani-Keshav Ganj (59.5 km)	2011-12	Jun-11	31.12.14	not revised	(+)16.49	not revised	25.18	252.48
72		Bangurgram - Guriya - Patch doubling (47 km)	2012-13	yet to commence	Not made Available	Not made Available	(+)16.49	not revised	1.76	244.31
73		Guriya-Marwar (43.5 km) & Karjoda-Palanpur (5.4 km)	2011-12	Dec-12	Not made Available	Not made Available	(+)16.49	not revised	18.04	188.18
74		Jaipur-Dausa (61.28 km)	2005-06	Nov-06	31.12.09	31.03.10	(+)18.55	not revised	209.16	2.89

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Gauge Conversion

75		Sarotra Road-Karjoda - Patch doubling (23.59 km)	2010-11	Dec-10	not fixed	Not Applicable	(+)12.07	not revised	43.00	113.64
76		Ajmer-Bangurgram (48.43 km)	2011-12	yet to commence	Not made Available	Not made Available	(+)16.49	not revised	19.66	232.33
77		Alwar-Bandikui (60.37 km)	2013-14	yet to commence	Not made Available	Not made Available	(+)13.86	not revised	0	242.09
78	SR	Calicut-Mangalore	1995-96	N.A.V.	N.A.V. (Section already commissioned)		13.430	NO	597.61	20.68
79		Omalur-Metturdam	2011-12	N.A.V.	Not fixed		18.900	NO	0.17	219.73
80		Chengalpattu-Villupuram	2006-07	N.A.V.	3/31/2015		14.310	13.195	544.59	212.16
81		Kuruppantara-Chingavanam	2007-08	10/07	N.A.V.	N.A.V.	1.32	NO	28.88	309.10
82		Villupuram-Dindugul	2008-09	N.A.V.	31/3/2014	Not fixed	5.891	11.759	0.84	994.63
83		Thanjavur-Ponmalai	2011-12	09/2012	Not fixed		9.189	NO	29.92	150.10

Annexure-1 (Para Reference 1.6.2)

Status of all on going Projects in Indian Railways (₹ 150 Crore and above) as on 31 March 2014

Sl. No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)	Rate of Return in percent		Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)	
84		Ernakulam-Kumbalam	2010-11	N.A.V.	Not fixed	(-) 2.86	NO	3.04	49.89	
85		Attipattu-Korukkupetta 3rd line	1999-00	N.A.V.	Ennore-Attipattu section completed	13.363	13.690	152.72	2.69	
86		Madurai-Dindugul	2003-04	N.A.V.	N.A.V. (Section already commissioned)	20.718	No	228.59	40.50	
87		Chengannur-chingavanam	2006-07	01/08	N.A.V.	N.A.V.	1.32	No	136.72	99.82

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Gauge Conversion

88		Kumbalam-Thuravur Patch doubling	2011-12	11/11	Not fixed	(-) 2.86		NO	1.72	115.38
89	SCR	Gudur - Renigunta & Renigunta - Tirupati	1997-98	02/2000	31-12-2000	31-03-2003, 31-03-2013	N.AV.	N.AV.	190.76	3.42
90		Mudhked-Parbhani	2011-12	Not yet commenced	31-03-2015		17.09	15.48	2.83	387.77
91		Kazipet-Vijayawada 3 rd line	2012-13	09/2014	31-03-2023		19.97	Not revised	0.59	1053.76
92	SER	Rajkharswan-Chakradharpur	2012-13	N.AV.	Mar-16	Mar-16	21.88	0.00	0.36	174.13
93		Panskura - Kharagpur -3rd line	2008-09	N.AV.	June-12	Mar-14	22.74	0.00	339.41	27.53
		(i) 1st MM: Panskura - Ghatal	2011-12	N.AV.	Not fixed	(-) 5.01		-		
94		Champajharan-Bimlagarh	2010-11	N.AV.	Dec-14	Dec-16	40.65	-	54.96	122.42
95		Tamluk Jn. - Basulya Sutahata	2010-11	N.AV.	Mar-12	June-14	29.59	-	139.69	-8.98

Annexure-1 (Para Reference 1.6.2)

Status of all on going Projects in Indian Railways (₹ 150 Crore and above)as on 31 March 2014

Sl.No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)		Rate of Return in percent		Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)
96		Goelkera - Monoharpur 3rd Line	1997-98	N.AV.	2009-10	Dec-15	19.64	16.95	144.97	13.6428
97		Dongaposi-Rajkharswan - 3rd line	2010-11	N.AV.	Mar-14	Mar-16	32.11	53.69	74.85	313.82
98		Monoharpur-Bondamunda - 3rd line	2012-13	N.AV.	Mar-16	Mar-16	49.88	-	1.19	257.01

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Guage Conversion

99	SECR	Bilaspur-Urkura (110Km)	1997-98	1997-98	31.07.14	-	Not Available	Not Available	274.76	271.34
100		Khodri-APR with flyover at BSP (61.6 Km)	2006-07	2006-07	31.03.15	-	23.00	24.35	139.83	374.47
101		CPH-JSG 3rd line (165 Km)	2008-09	2008-09	31.03.19	-	24.17	-	93.97	983.40
102		Durg-Rajnandgaon-3rd line	2010-11	2010-11	31.12.16	-	19.17	15.02	77.68	152.99
103	SWR	Hosadurga Road – Chikajajur – Patch doubling (28.89 Km)	2010-11	Nov-12	Jun-14	Mar-15	19.02	---	25.46	177.94
104		Hospet – Hubli-Londa – Tinaighat – Vasco da Gama (352.25 Km)	Apr-10	Jun-11	Not fixed	---	Not Available	Not Available	175.18	1951.82
105		Ramanagaram – Mysore (91.05 Km) with electrification of Kengeri - Mysore	Apr-07	Aug-07	Mar-13	Mar-15	13.77	---	591.32	283.25
106		Toranagallu – Ranjithpura (22.9 kms)	Apr-11	Work yet to be commenced	Not fixed	Not Fixed	29.16	---	0.05	167.45

Annexure-1 (Para Reference 1.6.2)

Status of all on going Projects in Indian Railways (₹ 150 Crore and above) as on 31 March 2014

Sl.No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion (As a whole not section wise)	Rate of Return in percent		Cummulative expenditure till March 2014 (₹ in crore)	Throw forward (₹ in crore)	
107	WR	Udhna-Jalgaon with electrification(306.93 kms)	2008-09	Feb-10	2013-14	3/31/2016	15.33 %	15.33 %	809.29	580.33
108		Viramgam-Surendranagar (65.26 kms)	2010-11	Jun-12	3/31/2014	Revised TDC of full project is not fixed	17.77 %	17.77 %	184.83	87.05

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Gauge Conversion

109		Viramgam-Samkhiali(182.23 Km.)	2011-12	Oct-12	Not fixed	37.50 Km target date 31/03/2015	15.89 %	15.89 %	107.61	577.56
110		Palanpur-Samkhiali(274.73 Km.)	2013-14	Not commenced	Not fixed	Not fixed	17.33 %	17.33 %	0	12.66
111	WCR	Bhopal-Bina 3rd Line -143 Kms	2008-09	Oct-09	Aug-11	Dec-15	16.10 %	15.60 %	792.76	0.00
112		Bina-Kota Line 282 Kms	2008-09	Oct-12	May-17	Not fixed	(+)14 %	Yet to be calculated	48.25	1369.49
Total									13277.4153	30426.07
Grand Total									84985.05	174133.32
Note*.-No New Line project selected in NCR										
Note*.-No Gauge Conversion project selected in ECoR, NR, SWR, WCR.										

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Gauge Conversion

Annexure-2 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (less than ` 150 Crore) as on 31 March 2014										
Sl.No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion		Rate of Return		Cummulative expenditure till March 2014 (` in crore)	Throw forward (` in crore)
NEW LINE (NL)										
1	CR	Baramati lonand new line 54 km	1998-99	2003	12/2011	N.AV.	(-)3.30%	-	123.61	14.81
2		Puntamba shirdi (16.40)km	2000-01	2000	N.AV.	N.AV.	5.80%	N.AV.	91.5	9.77
3		THANE-TURBHE – NERUL-VASHI CORRIDOR NO.2Turbhe – Juinagar – Nerul (4.77 KM)	1995-96	1995	12/2007	10/2008	N.AV.	N.AV.	443.66	135.02
4	NR	Govindwal-Taran Taran (21.5 Km)	1997-98	2002-03	N.AV.	31.01.11	N.AV.	Not revised	81.11	26.59
5		Chola- Bulandsahar (16 Km)	2013-14	Not yet commence	Not Fixed	Not yet revised	N.AV.	Not revised	0.00	58.90
6		Ferozepur-Patti (25 Km)	2013-14	Not yet commence	Not Fixed	Not yet revised	N.AV.	Not revised	0.00	146.90
7	NCR	Agra-Etawah	99-00	2001	12/09	12/13	(-)2.86%	6%	408.04	27.20
8		Bhind-Etawah(Part of Guna-Etawah Project)	02-03	1989 (on urgency certificate)	03/99	03/14	2.92	Not revised	333.74	23.11
9		Etawah-Mainpuri	97-98	NA	03/12	06/14	19.27	--	224.52	20.87
10	NER	Rampur-Lalkua-Kathgodam Road Over Bridge on National Highway near Rampur	Feb-95	2012	N.AV.	N.AV.	N.AV.	N.AV.	5.34	25.17
11	NWR	Ajmer-Pushkar (31.04 Km)	2000-01	06/2004	28.02.09	28.02.11	-3.40	not revised	133.18	1.82
12		Bangurgram-Ras (27.8 km)	2008-09	06/2011	not fixed	N.A.	18.70	not revised	139.34	5.33

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Gauge Conversion

Annexure-2 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (less than ` 150 Crore) as on 31 March 2014										
Sl.No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion		Rate of Return		Cummulative expenditure till March 2014 (` in crore)	Throw forward (` in crore)
13	SR	Tirunavaya-Guruvayur	1995-96	N.AV.	Not fixed	Not fixed	14.53	NO	22.93	116.34
14	SCR	Vishnupuram-Janpahad	2006-07	01/2009	31-03-2011	31-03-2016	34.26	Not revised	67.06	1.82
15		Kakinada-Pithapuram	1999-00	Not yet commenced	31-03-2009	31-03-2015, 31-03-2017	15.90	-11.27	0.01	125.67
16		Akkanapet-Medak	2012-13	Not yet commenced	31-03-2016	Not applicable	18.41	20.73	0.00	117.76
17	SECR	Barwadih-Chirimiri (182km)	2013-14	2013-14	Not finalised	-	4.85	8.16	0.00	113.00
	Total								2074.04	970.08
GAUGE CONVERSION (GC)										
1	NCR	Gwalior-Sheopurkala with extn to Kota	10-11	NA	02/20	Not Revised	0.00	0.00	3.51	3708.49
2	SECR	Nagbhir-Nagpur (106 Km)	2013-14	2013-14	Not finalised	-	-1.25	4.83	0.00	113.00
	Total								3.51	3821.49
DOUBLING (DL)										
1	CR	Godhani -Kalumna Chord line (13.2 Km)	2010-11	2012	Not fixed	N.AV.	N.AV.	N.AV.	12.29	40.37
2		Bhusawal jalgaon 3rd line (24.13 km)	2011-12	Not Commenced	Not fixed	N.AV.	N.AV.	N.AV.	2.19	174.01

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Gauge Conversion

Annexure-2 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (less than ` 150 Crore) as on 31 March 2014										
Sl.No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion		Rate of Return		Cummulative expenditure till March 2014 (` in crore)	Throw forward (` in crore)
3	CR	Belapur-Panvel doubling of commuter line as part of East West corridor (10.9 KM)	1995-96	1995	N.AV.\$	Not Applicable	N.AV.	N.AV.	292.92	176.08
4		Panvel-Roha Land Acquisition (75.44 km, 55 Ha)	1996-97	1996	Not fixed	N.AV.	N.AV.	N.AV.	16.75	11.58
5		Divya-Kalyan Doubling of 5th & 6th line	1999-2000	2000	N.AV\$\$.	Not applicable	N.AV.	N.AV.	77.11	151.54
6		Panvel-Jasai-Jawaharlal Nehru Port Trust (28.5 Km)	2000-01	2002	N.AV\$\$\$.	N.AV.	N.AV.	N.AV.	22.85	83.07
7	ER	New Alipore-Akra	1996-97	2000	N.AV.	N.AV.	(-) 17.00%	Not Revised	31.15	93.69
		MM for a)Budge Budge-Pujali b) Pujali-Uluberia[Birshivpur][10.25 km] & c) Pujali--Bahrahat [9.75 km]-NL	a) 2009-10, b]&c} 2011-12	Not yet started	N.AV.	N.AV.	a) (-) 16.00%, b) (-) 17.00%, c) (-) 20.00%	Not Revised	0.00	476.49
8		Habra-Bongaon Ph-I [Habra-Chandpara]	2000-01	2002	N.AV.	N.AV.	Less than 1.00%	Not Revised	71.94	69.16
		MM Machlandapur-Swarupnagar	2009-10	Not yet started	N.AV.	N.AV.	(-) 14.00%	Not Revised	0.00	104.24
9		Barasat- Sondalia [12.12 km] Ph-1 of Barasat Hasnabad Section	2000-01	2002	N.AV.	N.AV.	Negative	Not Revised	43.90	1.51
10		Bandel-Jirat of Bandel-Katwa Section	2000-01	2002	N.AV.	N.AV.	(-) 8.30%	Not Revised	114.87	0.60

Annexure-2 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (less than ` 150 Crore) as on 31 March 2014										
Sl.No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion		Rate of Return		Cummulative expenditure till March 2014 (` in crore)	Throw forward (` in crore)
11		Baruipur-Mograhat [15 km]	2000-01	2002	N.AV.	N.AV.	(-) 11.00%	Not Revised	53.03	3.26
12		Kajra-Kiul [15.85 km]	2002-03	2004	N.AV.	N.AV.	6.50%	Not Revised	32.98	14.44
13		Barharwa-Tinpahar [16.49 km]	2003-04	2005	N.AV.	N.AV.	1.00%	Not Revised	46.32	4.50
14		Jirat-Ambika Kalna [20.23 km]	2009-10	2011	N.AV.	N.AV.	(-) 4.00%	Not Revised	121.50	16.99
15		Nalikul - Tarakeswar [17.18 km]	2009-10	2011	N.AV.	N.AV.	(-) 10.00%	Not Revised	60.98	25.33
16		Kalinarayanpur-Shantipur [15.85 km]	2010-11	2012	N.AV.	N.AV.	(-) 8.00%	Not Revised	72.30	58.40
17		Ranaghat [Aranghata] - Duttaphulia [8.17 km]-NL	2011-12	Not yet started	N.AV.	N.AV.	(-) 13.00%	Not Revised	0.00	69.76
18		Sondalia-champapukur [23.64 km]	2010-11	2014	N.AV.	N.AV.	(-) 13.00%	Not Revised	155.38	83.92
19		Azimganj-Manigram [20.49 km]	2010-11	2012	N.AV.	N.AV.	(-) 12.00%	Not Revised	63.50	49.33
20		Lalgola - Jiaganj [22.95 km]	2010-11	2012	N.AV.	N.AV.	N.AV.	N.AV.	64.73	61.02
21		SDAH DIVN - 2nd passengar line between Mile 5-B and New Alipore [1.67 km]	2010-11	Not yet started	N.AV.	N.AV.	N.AV.	N.AV.	0.08	64.97

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Guage Conversion

Annexure-2 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (less than ` 150 Crore) as on 31 March 2014										
Sl.No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion		Rate of Return		Cummulative expenditure till March 2014 (` in crore)	Throw forward (` in crore)
22		Nalhati-Sagardihi [26.3 km]	2010-11	2012	N.A.V.	N.A.V.	6.00%	Not Revised	48.94	125.02
23		Bethuadahari-Palassey [22.51 km]	2010-11	2012	N.A.V.	N.A.V.	N.A.V.	N.A.V.	171.76	69.62
24		Sahibganj-Pirpanti [10.45 km]	2010-11	2012	12/2014	Not Revised	12.00%	Not Revised	60.76	60.86
25		Nabadwipdham-Patuli [22 km]	2010-11	2011	09/2014	02/2015	(-) 10.65%	Not Revised	51.31	55.70
26		Ambika Kalna - Nabadwipdham [23.29 km]	2010-11	2012	N.A.V.	N.A.V.	(-) 4.00%	Not Revised	108.77	55.71
27		Barharwa-Bonidanga [4.73 km]	2010-11	2011	N.A.V.	N.A.V.	14.00%	Not Revised	15.83	6.00
28		Dankuni-Bhattachanagar via CC line [west] with one additional loop at Bhattachanagar	2012-13	Not yet started	N.A.V.	N.A.V.	N.A.V.	N.A.V.	0.02	59.75
29		Tarapith- Rampurhat 3rd line	2012-13	Not yet started	December , 2014	March, 2017	16.00%	Not Revised	1.31	51.12
30		Sagardighi - Azimganj Cabin [16.30 km]	2012-13	Not yet started	N.A.V.	N.A.V.	N.A.V.	N.A.V.	0.54	77.48
31	ECR	Tarengna-Jehanabad (15.20 KM)	2003-04	June,2004	section commissioned		N.A.V.	N.A.V.	83.80	9.64
32		Mansi-Maheshkhunt Patch Doubling(22.12 KM)	2005-06	N.A.V.	section commissioned		N.A.V.	N.A.V.	18.15	20.10

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Gauge Conversion

Annexure-2 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (less than ` 150 Crore) as on 31 March 2014										
Sl.No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion		Rate of Return		Cummulative expenditure till March 2014 (` in crore)	Throw forward (` in crore)
33		Jehanabad-Bela (27.47 KM)	2005-06	Feb-09	section commissioned		N.AV.	N.AV.	142.17	43.60
34		Sonepur Hajipur Doubling including Gandak Bridge	2003-04	Dec-05	section opened		15.00%	Not Revised	92.95	45.71
35		Kursela-Semapur (27.78 KM)	2005-06	Feb-06	section opened		N.AV.	N.AV.	77.42	26.90
36		Maheshkhunt-Thanabihpur (31.75 Km)	2005-06	Feb-06	section commissioned		14.00	Not Revised	117.31	17.55
37		Thana-Bihpur Kursela Doubling (33.57Km)	2005-06	May,2006	section commissioned		14.00	Not Revised	51.95	16.65
38		Tilrath - Begusarai Doubling (8.33 Km)	2005-06	May,2006	section commissioned		55.00	Not Revised	18.43	19.22
39		Chandrapura-Rajabara-Chandrapura-Bhandaridah	2008-09	Mar-09	Under collection		36.00	1.49	31.75	23.17
40		Katreah-Kursela Patch Doubling (7.24 KM)	2012-13	Jan-13	Target not fixed		N.AV.	N.AV.	0.00	99.02
41	ECOR	Simhachalam-Gopalpatnam doubling by-pass line	2011-12	2011-12	Not fixed	28.02.2014	Not furnished	Not furnished	14.42	8.91
42		Brundamal- Jharsuguda Fly over connecting down line	2009-10	2009-10	Not Fixed	31.03.2016	25	Not furnished	0.00	94.33
43	NR	New Delhi-Tilak Bridge 5th & 6 th line	1998-99	2002-03	N.AV.	31.12.14	24.70	Not revised	120.20	11.07

Annexure-2 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (less than ` 150 Crore) as on 31 March 2014										
Sl.No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion		Rate of Return		Cummulative expenditure till March 2014 (` in crore)	Throw forward (` in crore)
44		Khukrana- Panipat (8 Km)	2007-08	2008-09	N.AV.	30.09.14	20.20	Not revised	53.78	4.01
45		Phaphamau-Allahabad (12.9 Km)	2009-10	2009-10	N.AV.	31.12.15	23.95	Not revised	20.45	121.20
46		Lohta- Bhadohi (39 Km)	2009-10	2009-10	N.AV.	31.12.14	N.AV.	Not revised	52.68	72.18
47		Badhoi- Janghai (31 Km,)	2010-11	2011-12	N.AV.	28.02.15	N.AV.	Not revised	47.06	58.00
48		Chakki Bank-Bharoli (3.5 Km)	2010-11	2010-11	N.AV.	31.03.14	14.00	Not revised	8.75	4.96
49		Jalandhar City- Suchipind (3.5 Km)	2010-11	2010-11	N.AV.	31.03.14	22.20	Not revised	13.19	6.91
50		Sambha-Vijaypur (5.5 Km)	2010-11	2010-11	N.AV.	31.03.15	19.00	Not revised	27.71	20.16
51		Kathua- Madhopur Ravi Bridge (2.5 Km)	2010-11	2010-11	N.AV.	31.12.15	20.00	Not revised	12.04	76.13
52		Kathua- Madhopur Bridge No. 16 (2.5 Km)	2010-11	2011-12	N.AV.	31.03.15	20.20	Not revised	1.23	14.70
53		Mirthal-Bhangla (2.31 Km)	2010-11	2011-12	N.AV.	31.03.15	21.00	Not revised	12.21	63.24
54	NCR	Palwal-Bhuteshwar-3rd line (By RVNL) *	05-06	N.AV. as project is executed by RVNL	N.AV. as RVNL projects	N.AV. as RVNL projects	0.00%	0.00%	N.AV. as RVNL project.	N.AV. as RVNL project.

Annexure-2 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (less than ` 150 Crore) as on 31 March 2014										
Sl.No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion		Rate of Return		Cummulative expenditure till March 2014 (` in crore)	Throw forward (` in crore)
55		Aligarh-Ghaziabad-3rd line (By Rly & RVNL *)	03-04	N.A.V. as project is executed by RVNL	Not furnished	Not furnished	0.00%	0.00%	369.03	3.43
56		Provision of 3rd line between Panki-Bhaupur	05-06	Under collection	06/08	12/14	19.56	Not revised	43.17	11.49
57		Tundla-Yamuna Bridge	95-96	Under collection	12/09	12/16	20.10%	0.00	77.62	11.99
58		Cheoki-Lohgara (Ph.II)	02-03	Under collection	03/07	05/2008	0.00%	0.00	84.07	1.74
59	NER	Ghagharaghat-Chaukaghat	Feb-06	2007	31.10.12	N.A.V.	16.17	N.A.V.	102.92	28.01
60		Bhatni-Baitalpur	Feb-06	2007	NA	NA	16.64	NA	116.69	-1.04
61	NWR	Dausa-Bandikui (29.04 Km)	2006-07	04/2008	30.06.2010	not revised	26.02	not revised	101.81	0.04
62		Alwar-Harsauli (34.86 km)	2007-08	10/2008	31.10.2010	not revised	20.87	not revised	78.62	12.98
63		Harsauli-Rewari (39.35 km)	2007-08	11/2008	31.12.2010	not revised	21.66	not revised	135.42	-1.67
64		Abu Road-Sarotra Road - Patch doubling (23.12 km)	2010-11	12/2010	not fixed	N.A.	12.07	not revised	38.00	101.07
65		Swaroopganj-Abu Road - Patch doubling (25.36 km)	2010-11	03/2011	not fixed	N.A.	12.25	not revised	32.29	101.07
66		Keshav Ganj-Swaroopganj - Patch doubling (26.48 km)	2010-11	02/2011	31,03.2012	not revised	12.28	not revised	63.40	55.17

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Guage Conversion

Annexure-2 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (less than ` 150 Crore) as on 31 March 2014										
Sl.No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion		Rate of Return		Cummulative expenditure till March 2014 (` in crore)	Throw forward (` in crore)
67		Bhagat ki Kothi-Luni (28.12 km)	2010-11	11/2011	not fixed	N.A.	17.21	not revised	75.00	48.15
68	SR	Irugur-Coimbatore	1996-97	N.AV.	Section already commissioned		24.85	No	96.58	12.09
69		Chenna Beach-Korukkipet 3rd line	2003-04	N.AV.	Not fixed	Not fixed	28.06	No	1.14	128.28
70		Cheppad-Kayankulam	2003-04	12/2005	5/31/2009	04/01/12 commissioned	-2.86	No	41.11	22.73
71		Mavelikara-Chengannur	2003-04	06/2005	5/31/2009	22/10/12 commissioned	5.10	No	117.07	11.48
72		Cheppad-Haripad	2003-04	12/2005	6/30/2008	04/01/12 commissioned	-2.86	No	32.26	29.20
73		Chennai Beach-Attipattu 4th line	2003-04	N.AV.	Not furnished	Not furnished	28.06	No	29.77	58.41
74		Kankanadi-Panambur	2006-07	01/2009	Not fixed	Not fixed	29.26	No	22.72	105.51
75		Ambalapuzha-Haripad	2007-08	10/2007	Not fixed	Not fixed	-2.86	No	30.85	83.22
76		Tiruvallur-Arakkonam 4th line	2008-09	N.AV.	Not furnished	Not furnished	14.10	14.470	37.83	100.2
77		Chennai Central-Basin Bridge 5th&6th line	2013-14	N.AV.	Not furnished	Not furnished		Not done	0.00	25.28

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Gauge Conversion

Annexure-2 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (less than ` 150 Crore) as on 31 March 2014										
Sl.No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion		Rate of Return		Cummulative expenditure till March 2014 (` in crore)	Throw forward (` in crore)
78		Mulunturuti-Kuruppantara	2005-06	05/2007	NA	-	1.32	No	131.79	57.10
79	SCR	Mancherial-Peddampet	2010-11	08/2010	N.AV.	31-03-2016	21.97	Not revised	16.93	88.72
80		Mantralayam Rd-Matmarri (patch tripling)	2011-12	08/2013	31.3.2009	31.3.2015	17.45	Not revised	0.19	48.96
81		Raghavapuram-Mandamarri(Patch tripling)	2008-09	06/2009	31-03-2012	31-03-2015	22.86	Not revised	118.01	18.21
82	SER	Rajkharswan - Sini 3rd Line	2008-09	-	Dec-12	Oct-14	47.75	-	86.81	19.71
83		Sini - Adityapur - 3rd line	2010-11	-	Dec-13	Mar-15	42.51	-	69.57	73.59
84		Kharagpur - Narayangarh - 3rd line	2012-13	-	Dec-14	Dec-16	16.46	-	2.23	138.05
85		Andul-Baltikuri	2012-13	-	Dec-14	Dec-16	15.68	-	1.96	42.48
86	SECR	Bilaspur-Salka Road-Patch Doubling (39.4Km)	2004-05	2004-05	N.AV.	-	20.7	24.35	106.98	144.19
87		Salka Road-KGS-Patch Doubling (26 Km)	2005-06	2005-06	31.12.14	--			89.75	143.87

Status of Ongoing Projects in Indian Railways – New Lines, Doubling and Gauge Conversion

Annexure-2 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (less than ` 150 Crore) as on 31 March 2014										
Sl.No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion		Rate of Return		Cummulative expenditure till March 2014 (` in crore)	Throw forward (` in crore)
88		Cph-Bypass line	2007-08	2007-08	Dec'10	-	17.96	N.AV.	36.18	42.93
89		Kalumna-NGP	2007-08	2007-08	30.06.15	-	30.03	N.AV.	20.17	24.78
90		APR- Bypass line	2007-08	2007-08	15.05.10	-	22.66	N.AV.	21.73	21.01
91		Bhilai-Durg 3rd line(13.15 Km)	2005-06	2005-06	N.AV.	-	N.AV.	N.AV.	65.19	61.53
92	SWR	Bangalore – Whitefield - Krishnarajapuram (23.08 Km) - Quadrupling	1997-98	Yet to be started	Not Fixed	N.A.	N.AV.	---	0.01	137.63
93		Birur – Shivani – Patch doubling (28.67 Km)	May-11	Nov-10	Sep-13	Mar-14	19.82	---	112.58	30.06
94		Shivani – Hosadurga Road (9.98 kms)	2011-12	Feb-12	Dec-13	Oct-14	19.82	---	38.04	11.77
95		Yelahanka – Chennasandra – Doubling with overhead equipment (12.89 Km)	2009-10	Jan-11	Feb-14	Feb-15	16.40	---	54.60	53.07
96		Yeswanthpur – Yelahanka - Doubling (16 kms)	2009-10	May-12	Mar-15	N.A.	18.82	---	40.89	55.15
97	WR	Kalapipal-Phanda	1990-91	Feb-03	3/15/2007	31/12/10 & 31/12/11	11.17%	11.17%	134.93	0.00
98		Akodia-Mom.Khera-Shujalpur Patch 13.15 Km	2003-04	Feb-05	6/30/2010	Not revised	11.17%	11.17%	53.69	3.13
99		Surtat-Kosamba 35 Km	2000-01	Yet to be started	Not fixed	N.A	Not worked out	Not worked out	0.00	133

Annexure-2 (Para Reference 1.6.2)										
Status of all on going Projects in Indian Railways (less than ` 150 Crore) as on 31 March 2014										
Sl.No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Target date of completion		Rate of Return		Cummulative expenditure till March 2014 (` in crore)	Throw forward (` in crore)
100		Gandhidham-Adipur 8 Km	2009-10	Nov-09	Not fixed	N.A	N.AV.	N.AV.	30.56	0.00
101		Gandhidham_KPT 12Km	2009-10	Oct-10	Not fixed	N.A	N.AV.	N.AV.	23.76	9.23
102		Vatva-Ahmedabad-3rd line with automatic signalling(7.50 Km.)	2013-14	Yet to be started	Not fixed	N.A	Not worked out	Not worked out	0.00	32.58
103	WCR	Ghatpindrai-Belkheda patch doubling (5.561 Kms)	2012-13	Dec--12	31.12.15	31.12.15	30.05%	Nil	8.34	17.32
104		Guna-Ruthiai (20.5 Kms)	2009-10	Sep-12	30.03.16	30.03.16	18.00%	Nil	19.21	102.69
	Total								5845.12	5732.46
	G.Total								7922.67	10524.04
<i>* For socio economic (S.E.) basis mention 1 otherwise (OW) 2.</i>										
Note* - no new line project selected in ER, ECR, ECoR, NFR, SER, SWR, WR, WCR										
Note* - no gauge conversion project selected in CR, ER, ECR, ECoR, NR, NER, NFR, NWR, SR, SCR, SER, SWR, WR, WCR										
Note* - No doubling project selected in NFR.										

Annexure 3 (Para Reference 1.6.5)										
Status of Projects taken up during 2004-09 as per budget announcement										
S.No	Zonal Railways	Category of Work (New Line, Gauge Conversion and Doubling)	Name of the project	Year of Budget announcement	Year of Sanction	Whether feasibility/ survey conducted (Yes/No)	Cost of the project (₹ in crore)	Actual expenditure as of March 2014 (₹ in crore)	Physical progress as of March 2014 (in percentage)	Throw Forward (₹ in crore)
NEW LINE										
1	CR	NL	Wardha-Nanded (via Yavatmal-Pusad) (284 km)	2008-09	2008-09	No	2500	68.25	10.00	2432.68
2	ER	NL	(1)Bariarpur-Mananpur via Kharagpur, Lachmipur-Barhat [67.78km]	2007-08	2007-08	Yes	250.55	6.46	2.00	238.90
3			(2)Sultanganj-Katuria via Asarganj, Tarapur & Belhar [74.8 km]	2007-08	2007-08	Yes	288.85	6.48	2.00	279.08
4			(3)Hasnabad-Hingalgarj [14 km]	2010-11	2010-11	Yes	172.03	5.04	0.00	258.00
5	ECR	NL	(1)Chapra Muzaffarpur (84.65 Km)	2006-07	2006-07	Yes	378.56	106.97	29.00	271.59
6			(2)Motihari-Sitamarhi (76.7 KM)	2006-07	2006-07	Yes	211.00	4.41	0.00	206.59
7			(3)Darbhanga-Kusheshwar Asthan (70.14 KM)	2006-07	2006-07	Yes	205.00	4.95	0.00	200.05
8			(3)Bihta-Aurangabad via Anugrahnarayan Road(118.45 Km)	2007-08	2007-08	Yes	326.20	1.69	0.00	324.51
9			(4)Sitamarhi-Jayanagar-Nirmali Via Sursand	2008-09	2008-09	Yes	678.62	16.86	0.00	661.76
10			(5)Muzaffarpur-Katra Oral Janakpur Road(66.55KM)	2008-09	2008-09	Yes	612.59	1.47	0.00	611.12
11			(6)Ara-Bhabua Road(122.0 KM)	2008-09	2008-09	Yes	490.80	0.39	0.00	490.41

Annexure 3 (Para Reference 1.6.5)										
Status of Projects taken up during 2004-09 as per budget announcement										
S.No	Zonal Railways	Category of Work (New Line, Gauge Conversion and Doubling)	Name of the project	Year of Budget announcement	Year of Sanction	Whether feasibility/ survey conducted (Yes/No)	Cost of the project (₹ in crore)	Actual expenditure as of March 2014 (₹ in crore)	Physical progress as of March 2014 (in percentage)	Throw Forward (₹ in crore)
13			(8)Dehri-On-Sone-Banrari(36.4KM)	2008-09	2008-09	Yes	106.20	3.66	0.00	102.54
14			(9)Gaya-Daltonganj Via Rafiganj(136.88)	2008-09	2008-09	Yes	445.25	1.14	0.00	444.11
15			(10)Gaya-Chatra/Natesar(97 KM)	2008-09	2008-09	Yes	549.75	13.88	0.00	535.87
16			(11)Nawada-Laxmipur(137 KM)	2008-09	2008-09	Yes	620.57	0.00	0.00	620.57
17			(12)Kursela-Bihariganj(35 KM)	2008-09	2008-09	Yes	192.56	0.39	0.00	192.17
18			(13)Muzaffarpur-Darbhanga(66 KM)	2008-09	2008-09	Yes	281.30	0.58	0.00	280.72
19	NR	NL	(1)Deoband- Roorkee (27.45 Km)	2007-08	2007-08	Yes	336.91	159.86	10.00	177.05
20			(2)Bhanupali- Bilaspur (63.1 Km)	2008-09	2008-09	Yes	2966.99	40.79	10.00	2926.20
21	NER	NL	Hathua-Bhatani	2004-05	2005-06	No	230.03	151.26	29.00	78.77
22	NFR	NL	(1)Araria- Galgalia (Thakurganj) (107.75 km)	2007-08	2007-08	Yes	532.87	43.94	2.38	488.93
23			(2)Tetelia- Byrnihat (30 km)	2006-07	2006-07	Yes	430.33	181.12	15.10	249.26
24			(3)Dimapur- Kohima (88 km)	2006-07	2006-07	Yes	2446.57	9.24	0.00	2437.33

Annexure 3 (Para Reference 1.6.5)

Status of Projects taken up during 2004-09 as per budget announcement

S.No	Zonal Railways	Category of Work (New Line, Gauge Conversion and Doubling)	Name of the project	Year of Budget announcement	Year of Sanction	Whether feasibility/ survey conducted (Yes/No)	Cost of the project (₹ in crore)	Actual expenditure as of March 2014 (₹ in crore)	Physical progress as of March 2014 (in percentage)	Throw Forward (₹ in crore)
25			(4)Agartala - Sabroom	2008-09	2008-09	Yes	1741.00	545.8	29.31	1195.20
26			(5)Jalalgarh- Kishenganj	2008-09	2008-09	Yes	359.86	2.22	0.00	357.64
27			(6)Bhairabi- Sairang	2008-09	2008-09	Yes	2393.48	171.5	10.45	2221.98
28			(7)Sivok- Rangpo	2008-09	2008-09	Yes	3380.58	82.802	2.00	3297.78
29	NWR	NL	Bangurgram-Ras(27.8 km)	2008	2008-09	Yes	144.67	139.34	100.00	5.43
30	SR	NL	(1)Erode-Palani	2008-09	2008-09	Yes	288.87	1.49	1.00	600.72
31			(2)Chennai-Puducherry-Cuddalore	2008-09	2008-09	Yes	523.52	2.03	7.00	770.46
32			(3)Jolarpettai-Tiruvannamalai	2008-09	Not sanctioned	Yes	356.77	NAV	NAV	NAV
33			(4)Attipattu-Puttur	2008-09	2008-09	Yes	527.37	2.96	1.00	512.65
34	SCR	NL	(1)Vishnupuram-Janpahad	2006-07	2006-07	Yes	65.24	67.06	100.00	1.82
35			(2)Manoharabad-Kothapalli	2006-07	2006-07	Yes	791.59	0.76	0.24	790.83
36			(3)Jaggayapeta-Mellacheruvu	2006-07	2006-07	Yes	313.24	178.78	25.00	134.46

Annexure 3 (Para Reference 1.6.5)										
Status of Projects taken up during 2004-09 as per budget announcement										
S.No	Zonal Railways	Category of Work (New Line, Gauge Conversion and Doubling)	Name of the project	Year of Budget announcement	Year of Sanction	Whether feasibility/ survey conducted (Yes/No)	Cost of the project (₹ in crore)	Actual expenditure as of March 2014 (₹ in crore)	Physical progress as of March 2014 (in percentage)	Throw Forward (₹ in crore)
37			(4)Kadapa-Bangalore	2008-09	2008-09	Yes	2050.00	162.24	7.00	1887.76
38	SER	NL	Kanthi-Digha(Egra) of Tamluk -Digha	2004-05	2011-12	Yes	247.28	456.87	2.00	644.09
39	SWR	NL	(1)Rayadurga - Tumkur	2004-05	Apr-07	Yes	970.34	276.53	15.00	693.81
40			(2)Kottur - Chitradurg via Jagalur	2005-06	Not sanctioned	NAV	Not applicable	Not applicable	Not applicable	Not applicable
41			(3)Talaguppa - Honavar	2006-07	Not sanctioned	NAV	Not applicable	Not applicable	Not applicable	Not applicable
42			(4)Dharwad - Bayalahongal - Belgaum	2007-08	Not sanctioned	NAV	Not applicable	Not applicable	Not applicable	Not applicable
43			(5)Nanjangud - Nilambur	2007-08	Not sanctioned	NAV	Not applicable	Not applicable	Not applicable	Not applicable
44			(6)Tukmur - Davanagere	2007-08	Apr-11	Yes	1801.01	0.63	0.00	1800.38
45			(7)Srinivasapura - Madanapalli	2008-09	2013-14	Yes	NAV	NAV	NAV	NAV
46	WR	NL	Chhota- Udepur-Dhar(157 kms)	2007-08	2007-08	Yes	1350.50	145.82	12.00%	1204.68
	Total	New Line	46 Projects				32863.26	3065.86		30932.12
GAUGE CONVERSION										
1	ER	GC	Bardhaman-Katwa [51.52 km]	2007-08	2007-08	Yes	245.15	225.81	50.00	870.56
2	NER	GC	Bhojipura-Tanakpur via Pilibhit	2004-05	2008-09	Yes	195.64	79.94	16.00	115.70

Annexure 3 (Para Reference 1.6.5)										
Status of Projects taken up during 2004-09 as per budget announcement										
S.No	Zonal Railways	Category of Work (New Line, Gauge Conversion and Doubling)	Name of the project	Year of Budget announcement	Year of Sanction	Whether feasibility/ survey conducted (Yes/No)	Cost of the project (₹ in crore)	Actual expenditure as of March 2014 (₹ in crore)	Physical progress as of March 2014 (in percentage)	Throw Forward (₹ in crore)
3	NFR	GC	Aluabari Road- Siliguri (76 km)	2006-07	2006-07	Yes	485.00	417.69	100.00	67.51
4	NWR	GC	(1)Sadulpur-Bikaner & Ratangarh-Degana (394.35 km)	2007	2007-08	Yes	872.22	787.75	100.00	84.47
5			(2)Suratpura-Hanumangarh-Sri Ganganagar (240.95 km)	2008	2008-09	Yes	516.23	475.85	87.00	40.38
6			(3)Jaipur-Ringus-Churu & Sikar-Loharu (320.04 km)	2008	2008-09	Yes	653.19	278.14	35.00	375.05
7	SR	GC	(1)Mayiladuthuai-Karaikudi - Tiruthuraipoondi-Agasthiampalli	2007-08	2007-08	Yes	1230.33	396.53	30.00	759.80
8			(2)Madurai-Bodinayakkanur	2008-09	2008-09	Yes	164.41	12.39	1.00	251.31
9	SCR	GC	Akola-Khandwa	2008-09	2008-09	Yes	1928.32	25.90	0.00	1902.42
10	SECR	GC	Chhindwara-Nagpur	2005-06	2005-06	Yes	663.66	429.07	63.00	234.59
11	SWR	GC	Kolar - Chickballapur	2004-05	Dec-06	Yes	455.31	447.50	100.00	7.81
12	WR	GC	(1)Rajkot-Veraval-Wansialiya to Jetalsar	1994-95	1994-95	Yes	931.37	461.85	77.00	469.52
13			(2)Bhildi-Viramgam	1990-91	1990-91	Yes	589.42	200.23	55.00	389.19
14			(3)Ahmedabad-Himmatnagar_udaipur	2008-09	2008-09	Yes	1215.34	56.72	NAV	1158.62
15			(4)Ratlam-Mhow-Khandwa-Akola(472.64 kms)	2008-09	2008-09	Yes	1421.25	318.37	33.00	1102.88
	Total	GC	15 Projects				11566.84	4613.74		7829.82

Annexure 3 (Para Reference 1.6.5)										
Status of Projects taken up during 2004-09 as per budget announcement										
S.No	Zonal Railways	Category of Work (New Line, Gauge Conversion and Doubling)	Name of the project	Year of Budget announcement	Year of Sanction	Whether feasibility/ survey conducted (Yes/No)	Cost of the project (₹ in crore)	Actual expenditure as of March 2014 (₹ in crore)	Physical progress as of March 2014 (in percentage)	Throw Forward (₹ in crore)
DOUBLING										
1	CR	DL	Pen-Roha	2007-08	2008	Not available	225	196.74	69	51.30
2	ER	DL	(1)Pandabeswar-Chinpai [21.41 km] with New MM between Barbani-Churulua [9 km] - NL	2004-05	2004-05	Yes	292.16	133.79	For Orig. Work-100 and MM-0%	147.65
3			(2)Chinpai-Sainthia, Prantik-suri - NL, with New MM for Chowrigachha-Sainthia via Kandi	2005-06	2005-06	Yes	590.91	121.31	For Orig. Work-100 and MM-0%	496.22
4			(3)Tinpahar-Sahibganj [37.81 km] as Ph-1 of doubling of Tinpahar-Bhagalpur	2009-10	2009-10	Yes	182.56	84.96	50.00	101.40
5			(4)Ghutiari Sharif-Canning with extension upto Bangankhali & New MM for Bhangankhali - Basanti [14.2 km] & Basanti-Jharkhali [23 km] - NL	2009-10	2009-10	No	189.97	134	For Orig. Work-100 and MM-0%	60.54
6			(5)Dakshin Barasat-Lakshmikantapur [19.68 km] , Joynagar to Raidighi [20 km] - NL & New MM for Joynagar-Durgapur [32 km]	2009-10	2009-10	No	259.51	105.14	For Orig. Work-95 and MM-0%	155.60
7			(6)Magrahat-Diamond Harbour [19.67 km] with New MM for sangrampur - krishanchandapur [25 km] & Diamond Harbour[Gurudasnagar] - Bahrahat [21 km] - NL	2009-10	2009-10	No	172.47	116.91	95% For MM 0%	57.99

Annexure 3 (Para Reference 1.6.5)										
Status of Projects taken up during 2004-09 as per budget announcement										
S.No	Zonal Railways	Category of Work (New Line, Gauge Conversion and Doubling)	Name of the project	Year of Budget announcement	Year of Sanction	Whether feasibility/ survey conducted (Yes/No)	Cost of the project (₹ in crore)	Actual expenditure as of March 2014 (₹ in crore)	Physical progress as of March 2014 (in percentage)	Throw Forward (₹ in crore)
8			(7)krishnanagar-Bethuadahari [27.92 km]	2009-10	2009-10	Yes	151.65	113.07	85.00	33.24
9			(8)Liluah- Dankuni 3rd line with extension to Furfura Sharif	2009-10	2009-10	Yes	257.42	115.76	65.00	219.33
10			(9)Jirat-Ambika Kalna [20.23 km]	2009-10	2009-10	Yes	139.50	121.5	100.00	16.99
11			(10)Nalikul - Tarakeswar [17.18 km]	2009-10	2009-10	No	113.33	60.98	100.00	25.33
12	ECR	DL	(1)Mansi-Maheshkhunt Patch Doubling(22.12 KM)	2005-06	2005-06	Yes	38.25	18.14	100.00	20.11
13			(2)Jehanabad-Bela (27.47 KM)	2005-06	2005-06	Yes	127.07	115.91	100.00	11.16
14			(3)Kursela-Semapur (27.78 KM)	2005-06	2005-06	Yes	104.33	77.42	98.00	26.91
15			(4)Maheshkhunt- Thanabihpur (31.75 Km)	2005-06	2005-06	Yes	134.85	117.31	100.00	17.54
16			(5)Thana-Bihpur Kursela Doubling (33.57Km)	2005-06	2005-06	Yes	68.60	51.95	100.00	16.65
17			(6)Begusarai-Khagaria Doubling (40.38 Km)	2005-06	2005-06	Yes	165.19	160.84	100.00	4.35
18			(7)Tilrath - Begusarai Doubling (8.33 Km)	2005-06	2005-06	Yes	37.65	18.43	100.00	19.22
19			(8)Chandrapura-Rajabara-Chandrapura-Bhandaridah	2008-09	2008-09	Yes	33.94	31.75	64.42	2.19

Annexure 3 (Para Reference 1.6.5)										
Status of Projects taken up during 2004-09 as per budget announcement										
S.No	Zonal Railways	Category of Work (New Line, Gauge Conversion and Doubling)	Name of the project	Year of Budget announcement	Year of Sanction	Whether feasibility/ survey conducted (Yes/No)	Cost of the project (₹ in crore)	Actual expenditure as of March 2014 (₹ in crore)	Physical progress as of March 2014 (in percentage)	Throw Forward (₹ in crore)
20	ECoR	DL	(1)JSG-RGL	2005-06	2005-06	Yes	201.00	207.02	90.00	6.20
21			(2)SBP-TIG	2006-07	Not furnished	Not furnished	Not furnished	Not furnished	Not furnished	Not furnished
22			(3)VZM-KTV3	2006-07	2006-07	Yes	284.87	222.73	97.00	62.14
23			(4)TIG-R	2007-08	Not furnished	Not furnished	Not furnished	Not furnished	Not furnished	Not furnished
24			(5)BXQ-JSG Fly Over	2009-10	2009-10	Yes	94.33	0	0	94.33
25	NR	DL	(1)Utratia-Zafrabad doubling of balance 148 km section with MMs for Raibareli-akbarganj (46.9 km) and Sultanpur-Amethi (19.22 km) with new MM of Sultanpur-Kadipur(38.7 km)- new lines	N.A.V.	2006-07	Yes	1116.53	277.91	22.00	838.62
26			(2)Tuglakabad- Palwal 4th line (33.5 Km)	2006-07	2006-07	Yes	287.48	253.53	84.00	33.95
27			(3)Khukrana- Panipat (8 Km)	2007-08	2007-08	Yes	57.00	52.99	95.00	4.01
28			(4)Jakhal- Mansa (45.2 Km)	2008-09	2008-09	Yes	161.33	135.43	95.00	25.90
29	NER	DL	Aunrihar-Manduadih Patch doubling	2008-09	2011-12	Yes	199.75	45.47	0.00	154.28

Annexure 3 (Para Reference 1.6.5)										
Status of Projects taken up during 2004-09 as per budget announcement										
S.No	Zonal Railways	Category of Work (New Line, Gauge Conversion and Doubling)	Name of the project	Year of Budget announcement	Year of Sanction	Whether feasibility/ survey conducted (Yes/No)	Cost of the project (₹ in crore)	Actual expenditure as of March 2014 (₹ in crore)	Physical progress as of March 2014 (in percentage)	Throw Forward (₹ in crore)
30	NWR	DL	(1)Jaipur-Phulera(54.75 km)	2004	2004-05	Yes	94.81	117.55	100.00	0.00
31			(2)Jaipur-Dausa (61.28 km)	2005	2005-06	Yes	211.8	209.16	100.00	-1.66
32			(3)Dausa-Bandikui(29.04 Km)	2006	2006-07	Yes	101.84	101.81	100.00	0.04
33			(4)Alwar-Harsauli (34.86 km)	2007	2007-08	Yes	91.59	78.62	100.00	12.98
34	SR	DL	(1)Ambalapuzha-Haripad	2007-08	2007-08	Yes	105.92	30.85	0.00	83.22
35			(2)Villupuram-Dindigul	2008-09	2008-09	Yes	1258.60	0.84	0.00	994.63
36			(3)Tiruvallur-Arakkonam 4th line	2008-09	2008-09	Not required	149.09	37.83	0.00	100.20
37	SCR	DL	Raghavapuram-mandamarri	2008-09	2008-09	Yes	136.22	118.01	83.00	18.21
38	SER	DL	(1)Panskura-Kharagpur	2008-09	2008-09	Yes	252.54	339.41	93.00	27.53
39			(2)Rajkharswan-Sini	2008-09	2008-09	Yes	91.61	85.84	86.00	9.99
40	SECR	DL	(1)Salka Road-Khongsara patch doubling	2005-06	2005-06	Yes	143.87	89.78	49.50	54.09
41			(2)Khodari-Anuppur with flyover at Bilaspur	2006-07	2006-07	Yes	374.47	140.09	76.00	234.38

Annexure 3 (Para Reference 1.6.5)										
Status of Projects taken up during 2004-09 as per budget announcement										
S.No	Zonal Railways	Category of Work (New Line, Gauge Conversion and Doubling)	Name of the project	Year of Budget announcement	Year of Sanction	Whether feasibility/ survey conducted (Yes/No)	Cost of the project (₹ in crore)	Actual expenditure as of March 2014 (₹ in crore)	Physical progress as of March 2014 (in percentage)	Throw Forward (₹ in crore)
42			(3)Bhilai-Durg 3rd line	2005-06	2005-06	Yes	61.53	62.88	100.00	-1.35
43			(4)Bilaspur-Salka Road	2004-05	2004-05	Yes	144.19	107.26	100.00	36.93
44			(5)Kalumna-Nagpur	2007-08	2007-08	Yes	27.69	20.17	75.00	7.52
45			(6)Champa bypass	2007-08	2007-08	Yes	42.93	36.18	100.00	6.75
46			(7)Champa-Jharsuguda 3rd line	2008-09	2008-09	Yes	983.40	95.08	22.00	888.32
47	SWR	DL	Ramanagaram - Mysore	2004-05	Apr-07	Yes	874.57	591.32	75.00	283.25
48	WR	DL	(1)Akodia-Mohmd.Shuialpur 13.15 Km	2003-04	2003-04	Yes	56.82	53.69	100.00	3.13
49			(2)Surat-Kosamba	2000-01	2000-01	Yes	48.99	0.00	0.00	0.00
	Total	DL	49 Projects				10939.13	5407.36		5461.304
	Grand Total	NL+GC+DL	110 Projects (NL-46, GC-15, DL-49)				55369.226	13086.95		44223.24
NOTE: 1- ECoR, NCR, SECR and WCR have nil works of NEW LINES.										
2- CR, ECR, ECoR, NR, NCR, SER and WCR have nil works of GAUGE CONVERSION.										
3- NCR, NFR and WCR have nil works of DOUBLING.										
4- Where NA stands for Not Applicable, NAV stands for Not Available										

Annexure - 4 (Para Reference 1.6.7.1)

Delay in submission and sanction of detailed estimate

Zonal Rly.	Category of Work (New Line, Gauge Conversion and Doubling)	Name of the Projects	Month and Year of sanction	Month and Year of commencement of works	Month and year of submission of detailed estimate	Time taken in submission of detailed estimate (in months)	Month and year of sanction of detailed estimates	Reasons for delay in submission and sanction of detailed estimate	Time taken in sanction of detailed estimate (in months)
CR	NL	(1)Ahmednagar-Beed-Parli Vajjnath	1995-96	1996	April'2004	96	Mar-12	N.A.V.	95
		(2)Belapur-Seawood-Uran Electrified Double Line.	1996-97	1996	Dec.'1996	8	July 1997	NIL	6
		(3)Wardha-Nanded (via Yavatmal-Pusad) (284km)	2008-09	2010	June 2014	74	Not sanctioned till date	Detailed estimate was sent to Railway Board in June 2014 for sanction, which is awaited.	NAV
ER	NL	1) Rampurhat-Mandarhill via Dumka (130 km) with new material modification for Rampurhat-Murara (28.48 km) – 3 rd line	1995-96	2000	Phase-I-Manderhill-Rampurhat - 15.01.1998	24	Mar-99	Time taken to complete FLS.	12
		2) Dumka- Rampurhat (phse-II of Rampurhat-Mandarhill via Dumka project)	1995-96	Not made available	Jun-01	63	July, 2002	Reason for delay was not found on record.	1
		3) Deoghar-Dumka (72.25 km)	1998-99	Not made available	Not available	Not available	August, 2001	Not applicable	Not applicable

Annexure - 4 (Para Reference 1.6.7.1)

Delay in submission and sanction of detailed estimate

Zonal Rly.	Category of Work (New Line, Gauge Conversion and Doubling)	Name of the Projects	Month and Year of sanction	Month and Year of commencement of works	Month and year of submission of detailed estimate	Time taken in submission of detailed estimate (in months)	Month and year of sanction of detailed estimates	Reasons for delay in submission and sanction of detailed estimate	Time taken in sanction of detailed estimate (in months)
ER		4) Hansdiah-Godda (30 km)	2011-12	Not yet started	Not yet submitted	Not applicable	Not applicable	Not applicable	Not applicable
ECR	NL	(1)Const. of Rly. Bridge over River Ganga at Munger.	1997-98	November, 2002	27.03.2008	120	04.11.2008	Estimate was sanctioned in parts. Ist part estimate was sanctioned in Nov.2002.	8
		(2)Patna Ganga Bridge with linking between Patna & Hajipur. (19 KM)	1997-98	January, 2002	07.11.2001	54	07.01.2002	To elicit further clarification.	2
		(3)Giridih- Koderma (Phase-I)150 Km	1996-97	October, 2000	30.05.2002	62	12.08.2003	Part detailed estimate sanctioned in Oct.2000.	15
		(4)Koderma - Ranchi (189 Km) (i). Phase-I Koderma to Hazaribagh (ii).PhaseII- Hazaribagh to Barkakana (iii). PhaseIII-Barkakana to Ranchi)	1998-99	1. PhaseI- Feb.2002 2. PhaseII- Feb.2002 3. PhaseIII	1. PhaseI- 01.11.2001 2. PhaseII- 08.12.2001 3. PhaseIII	46	08.02.2002	NAV	3
		(5)Koderma - Tilaiya (68 Km)	2001-02	November, 2004	18.09.2003	14	04.11.2004	NAV	13

Annexure - 4 (Para Reference 1.6.7.1)

Delay in submission and sanction of detailed estimate

Zonal Rly.	Category of Work (New Line, Gauge Conversion and Doubling)	Name of the Projects	Month and Year of sanction	Month and Year of commencement of works	Month and year of submission of detailed estimate	Time taken in submission of detailed estimate (in months)	Month and year of sanction of detailed estimates	Reasons for delay in submission and sanction of detailed estimate	Time taken in sanction of detailed estimate (in months)
ECoR	NL	(1)Khurda Road-Bolangir New Line (289 Kms)	1994-95	1994-95	June 2001	86	June 2002	NAV	12
		(2)Talcher - Bimlagarh (154 Kms)	2003-04	2003-04	August 2006	40	November 2007	FLS conducted after work appeared in Pink Book. Hence delay in preparing detailed estimate.	15
NR	NL	(1))Nangaldam-Talwara	1981-82	1982-83	11/1984 (for phase I i.e NLDM-Amb Andaura) & 4/2008(Amb Anaura to Daulatpur Chowk and Daulatpur Chowk to Kartoli Punjab)	32	May-85	NAV	6
					Phase -II		Dec-08		8
		(2)USBRL	1994-95	1995	1999-2000	48	2012	NAV	156
		(3)Rewari-Rohtak	2003-04	2006-07	12/2005	6	05/2006	NAV	6

Annexure - 4 (Para Reference 1.6.7.1)

Delay in submission and sanction of detailed estimate

Zonal Rly.	Category of Work (New Line, Guage Conversion and Doubling)	Name of the Projects	Month and Year of sanction	Month and Year of commencement of works	Month and year of submission of detailed estimate	Time taken in submission of detailed estimate (in months)	Month and year of sanction of detailed estimates	Reasons for delay in submission and sanction of detailed estimate	Time taken in sanction of detailed estimate (in months)
NEFR	NR	(4)Jind-Sonepat	2003-04	2006-07	02/2006	11	01/2008	Correspondence reg. Clarification.	23
		(5)Bhanupalli-Bilaspur	2008-09	2009-10	Part detailed estimate - 02/2009	5	02/2009	NAV	2
		(6)Chandigarh-Baddi	2007-08	Yet to commence	11/2008	8	Yet to be sanctioned	NAV	NAV
		(7)Deoband-Roorkee	2007-08	2008-09	06/2008	12	11/2008	Correspondence reg. Clarification.	5
		(8)Rohtak-Meham-Hansi	2012-13	2012-13	09/2013	6	Yet to be sanctioned	Correspondence reg. Clarification.	NAV
NCR	NL	(1)Agra-Etawah	99-00	2001	Sept'11	12	24/10/02 20/06/12	Approval of competent Authority.	12
		(2)Bhind-Etawah (Part of Guna-Etawah Project)	Feb'92	1989 (On urgency certificate)	1991	0	26/02/92 26/07/04 29/09/11	Do	12

Annexure - 4 (Para Reference 1.6.7.1)

Delay in submission and sanction of detailed estimate

Zonal Rly.	Category of Work (New Line, Guage Conversion and Doubling)	Name of the Projects	Month and Year of sanction	Month and Year of commencement of works	Month and year of submission of detailed estimate	Time taken in submission of detailed estimate (in months)	Month and year of sanction of detailed estimates	Reasons for delay in submission and sanction of detailed estimate	Time taken in sanction of detailed estimate (in months)
NER	NL	Maharajgang-Masarakh-Rewa Ghat	Jan-04	2008	Jun-07	42	Oct-07	Delay in preparation of DE and sanction of part DE.	4
NEFR	NL	(1)Bogibeel Bridge with linking Lines	Jan-97	1997-98					
		Pt-I			27-06-2000	7	19.12.2001	Time taken for:CE's Approval= 5 months, A/c's vetting= 1 month, sending to Rly. Bd= 1 month	18
		Pt.II			28.01.2002	11	10.10.2002	Time taken for: CE's approval= 4 months, A/c's vetting= 6 months, sending to RB= 1 month	9
		Pt-III			08.03.2005	3	13.12.2005	Time taken for: CE's approval= 1 month, A/c's vetting = 1 month, GM's/CAo's approval= 1 month	9
		Pt-IV			09.01.2009	14	17.05.2010	Time taken for: CE's approval= 4 month, A/c's vetting= 2 months, GM's/CAO's approval= 8 months	16

Annexure - 4 (Para Reference 1.6.7.1)

Delay in submission and sanction of detailed estimate

Zonal Rly.	Category of Work (New Line, Guage Conversion and Doubling)	Name of the Projects	Month and Year of sanction	Month and Year of commencement of works	Month and year of submission of detailed estimate	Time taken in submission of detailed estimate (in months)	Month and year of sanction of detailed estimates	Reasons for delay in submission and sanction of detailed estimate	Time taken in sanction of detailed estimate (in months)
NEFR	NL	Pt-V			03.11.2008	1	01.09.10	Time taken for: CE's approval= 1 month	10
		(2)New Mainaguri- Jogighopa	Jan-00	2000-01					
		Pt-I			12.9.2000	1	12.9.2000	Time taken for: A/c's vetting= 1 month	0
		Pt.II			15.11.2002	2	12.09.2003	Time taken for: A/c's vetting= 2 month	9
NWR	NL	(1)Ratlam-Dungarpur via Banswara (176.47 km)	2011-12	Nov-11	September 2012 (Part I of DE)	17	November 2012 (Part-I) Not sanctioned so far (March 2014)	The Survey Estimate was sanctioned by GM/NWR on 23.05.2011 and MoU was entered into on 31.05.2011.The first contract of this project for carrying out the FLS could be awarded in November 2011(after a period of 7 months of sanctioning of the project) with a DOC of 12 months. Thereafter, the Detailed Estimate was submitted in September 2012 i.e. after 18 months of sanctioning of the project.	2
					September 2013- Part-II of DE	29			6

Annexure - 4 (Para Reference 1.6.7.1)

Delay in submission and sanction of detailed estimate

Zonal Rly.	Category of Work (New Line, Gauge Conversion and Doubling)	Name of the Projects	Month and Year of sanction	Month and Year of commencement of works	Month and year of submission of detailed estimate	Time taken in submission of detailed estimate (in months)	Month and year of sanction of detailed estimates	Reasons for delay in submission and sanction of detailed estimate	Time taken in sanction of detailed estimate (in months)
		(2)Thaiyat Hamira - Sanu (58.5 km)	2013-14	Yet to commence	NAV	NAV	NAV	NAV	NAV
SR	NL	(1)Angamali-Sabarimala	1997-98	11/2006	09/2004	78	05/2006	NAV	20
		(2)Tindivanam - Nagari	2006-07	N.AV.	Part estimate - 11/2007 Detailed estimate - 04/2008	7	12/2007	Administrative delay	1
						12	07/2008		3
		(3)Tindivanam - Tiruvannamalai	2006-07	N.AV.	04/2008	12	07/2008	Administrative delay	3
		(4)Erode - Palani	2008-09	Frozen	08/2010	16	Frozen	Administrative delay	Not yet sanctioned
		(5)Attipattu-Puttur	2008-09	Yet to commence	02/2011	22	09/2011	Administrative delay	7
SCR	NL	(1)Nandyal-Yerraguntla	1996-97	02/2003	11/1997	19	1/1999	NAV	14
		(2)Gulbarga-Bidar	1997-98	12/2003	07/2002	51	6/2003	NAV	11
		(3)Cuddapah-Bangalore	2008-09	04/2012	04/2009	11	3/2010	NAV	11

Annexure - 4 (Para Reference 1.6.7.1)									
Delay in submission and sanction of detailed estimate									
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		(4)Jaggayapeta-Mellacheruvu with MM for MACU-Janpahad	2006-07	03/2007	09/2006	4	12/2006	NAV	3
		(5)Peddapalli-Nizamabad	1993-94	01/1995	09/1994	5	12/1994	NAV	3
					07/2001	86	05/2002		10
					04/2002	95	09/2002		5
SER	NL	(1) Bowaichandi-Arambagh (31 km)	2010-11	NAV	Oct-2010	NAV	Feb-2011	NAV	3
		(2)Tamluk-Digha	1984-85	NAV	Jan-2000	180	April-2000	NAV	3
		(i) 1st MM : Deshpran-Nandigram	2009-10	NAV	Jan-09	Time taken not calculated as DE submitted and sanctioned in the same year	Oct-09	NAV	8
		(ii) 2nd MM:Kanthi-Egra	2011-12	NAV	Feb-11	-do-	July-2011	NAV	4
		(iii) 3rd MM:Nandigram - Kandiamari	2012-13	NAV	Feb-12	-do-	July-2012	Querries made by Rly. Bd	4

Annexure - 4 (Para Reference 1.6.7.1)

Delay in submission and sanction of detailed estimate

Zonal Rly.	Category of Work (New Line, Gauge Conversion and Doubling)	Name of the Projects	Month and Year of sanction	Month and Year of commencement of works	Month and year of submission of detailed estimate	Time taken in submission of detailed estimate (in months)	Month and year of sanction of detailed estimates	Reasons for delay in submission and sanction of detailed estimate	Time taken in sanction of detailed estimate (in months)
		(iv) 4th MM: Nandakumar - Balaipanda	2012-13	NAV	Feb-12	-do-	June-2012	NAV	3
SECR	NL	(1)Dallirajhara-Jagdapur(235 Km)	1995-96	1995-96	Combined detailed estimate submitted on 08.07.2014.	NAV	Sanction of combined estimate still pending at Rly. Bd.	NAV	NAV
		(2)Wadsa-Gadchiroli(49.5 Km)	2011-12	2011-12	21.01.2014	34	NAV	NAV	NAV
SWR	NL	(1)Bagalkot - Kudachi (142Kms)	Apr-10	May-12	Nov-12	31	Oct-13	Proactive Correspondences among Executive, Associate Finance and Railway Board	11
		(2)Bangalore-Sathyamangalam (260 Kms)	Apr-97	Work yet to be commenced	Nov-13	199	Dec-13	Non-clearance by Forest department and Central Empowered Committee.	1
		(3)Bangalore-Hassan via Shravanabelagola (166 Kms)	Apr-96	May-97	Nov-00	55	Jan-01	Proactive Correspondences among Executive, Associate Finance and Railway Board	2

Annexure - 4 (Para Reference 1.6.7.1)

Delay in submission and sanction of detailed estimate

Zonal Rly.	Category of Work (New Line, Gauge Conversion and Doubling)	Name of the Projects	Month and Year of sanction	Month and Year of commencement of works	Month and year of submission of detailed estimate	Time taken in submission of detailed estimate (in months)	Month and year of sanction of detailed estimates	Reasons for delay in submission and sanction of detailed estimate	Time taken in sanction of detailed estimate (in months)
		(4)Hubli- Ankola (167 Kms)	Apr-97	Jul-97	Jan-99	21	Jan-01	Non-clearance by Forest department and Central Empowered Committee.	24
		(5)Kadur - Chickmagalur - Sakaleshpur (93Kms) Part -I Estimate - Phase I (Kadur-Chickmagalur)	Apr-96	Sep-96	Mar-99	35	Jun-99	Due to submission of part detailed estimate for major plan heads separately and correspondences among Executive, Associate Finance and Railway Board.	3
		(i) Kadur- Chickmagalur-Sakaleshpur (93Kms) Part -II Estimate - Phase I (Kadur-Chickmagalur)			Jan-09	153	Jun-10		17
		(ii) Kadur- Chickmagalur-Sakaleshpur (93Kms) Part -I Estimate - Phase II (Chickmagalur-Sakaleshpur)			Aug-05	112	Sep-07		25
		(6) Munirabad-Raichur (165 Kms)	Apr-07	2008-09	Jul-12	63	Nov-13	Proactive Correspondences among Executive, Associate Finance and Railway Board.	16

Annexure - 4 (Para Reference 1.6.7.1)

Delay in submission and sanction of detailed estimate

Zonal Rly.	Category of Work (New Line, Gauge Conversion and Doubling)	Name of the Projects	Month and Year of sanction	Month and Year of commencement of works	Month and year of submission of detailed estimate	Time taken in submission of detailed estimate (in months)	Month and year of sanction of detailed estimates	Reasons for delay in submission and sanction of detailed estimate	Time taken in sanction of detailed estimate (in months)
		(7)Rayadurga-Tumkur via Kalyandurga (206 Kms)	Apr-07	Aug-11	Nov-08	19	Jul-09	Proactive Correspondences among Executive, Associate Finance and Railway Board.	8
		(8) Shimoga-Harihar(78.66 Kms)	Apr-11	Work yet to be commenced	Mar-13	23	Nov-13	Do	8
		(9) Tumkur-Chitradurga-Davanagere (200Kms)	Apr-11	Work yet to be commenced	Apr-13	24	Oct-13	Do	6
		(10) Whitefield-Kolar (52.90 Kms)	Apr-11	Work yet to be commenced	Jul-12	15	Oct-12	Do	3
WR	NL	Chhota- Udepur-Dhar(157 kms)	2007-08	Aug-09	28/9/2010 05/08/2011, 03/03/2012, 27/07/2012	41	9/6/2012	Defficiencies pointed out by Rly Bd in preparation of detailed estimate, cost variation statement was not furnished properly, FA&CAO comments and administrative remarks were not furnished.	1

Annexure - 4 (Para Reference 1.6.7.1)

Delay in submission and sanction of detailed estimate

Zonal Rly.	Category of Work (New Line, Guage Conversion and Doubling)	Name of the Projects	Month and Year of sanction	Month and Year of commencement of works	Month and year of submission of detailed estimate	Time taken in submission of detailed estimate (in months)	Month and year of sanction of detailed estimates	Reasons for delay in submission and sanction of detailed estimate	Time taken in sanction of detailed estimate (in months)
WCR	NL	(1) Lalitpur - Singrauli New line Project -541 Kms	1998-99	Jun-02	Under preparation	0	Nil	Nil	0
		(2) Ramganj Mandi- Bhopal (BG) New line Project - 262 Kms	2000-01	Nov-05	31.08.07	72	Detailed Estimate is not sanctioned as of March 2014.	Railway do not consider it delay in submission of part detailed estimates were sanctioned from time to time	0
Total	New Line Projects	56							

Gauge Conversion

ER	GC	Bardhaman-Katwa [51.52 km] with New Material Modification for Katwa-Bazarsau [30.59 km]- Doubling. Katwa[Dainhat]-Mateswar [34.4 km] Negum-Mangalkot [8.60 km] & Manteswar-Memari[35.6km]-NL	2007-08	2009	September,2008	6	March,2009	No delay	6
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Annexure - 4 (Para Reference 1.6.7.1)

Delay in submission and sanction of detailed estimate

Zonal Rly.	Category of Work (New Line, Gauge Conversion and Doubling)	Name of the Projects	Month and Year of sanction	Month and Year of commencement of works	Month and year of submission of detailed estimate	Time taken in submission of detailed estimate (in months)	Month and year of sanction of detailed estimates	Reasons for delay in submission and sanction of detailed estimate	Time taken in sanction of detailed estimate (in months)
ECR	GC	(1) Sakri-Laukha bazar-Nirmali-Saharsa-Forbesganj(206.06KM)	2004-05	December, 2006	NAV	46	28.02.2008	NAV	NAV
		(2) JayNagar - Darbhanga-Narkatiaganj (268 KM)	1997-98	May, 2002	26.04.2002	61	29.05.2002	NAV	1
NCR	GC	Dholpur-Sirmutra	2010-11	2014	July'12	24	28/06/13 (Only Part Detailed Estimate sanctioned)	Approval of competent Authority	12
NER	GC	Aunrihar-Jaunpur	Jan-04	2004	Jul-06	30	Jun-07	Sanction of part DE, delay in preparation of DE None approval of yard plan, none revision of rates of Rail in DE ana Discrepancies between RB and Rly. Regarding depth of blanketing.	11
NFR	GC	(1) Lumding- Silchar including branch lines	Jan-96	1996-97	05.03.1996	1	08.09.1997	Time taken for: A/c's vetting= 1 month	15
					08.02.1999	1	22.10.1999	Time taken for: A/c's vetting= 1 month	8

Annexure - 4 (Para Reference 1.6.7.1)

Delay in submission and sanction of detailed estimate

Zonal Rly.	Category of Work (New Line, Gauge Conversion and Doubling)	Name of the Projects	Month and Year of sanction	Month and Year of commencement of works	Month and year of submission of detailed estimate	Time taken in submission of detailed estimate (in months)	Month and year of sanction of detailed estimates	Reasons for delay in submission and sanction of detailed estimate	Time taken in sanction of detailed estimate (in months)
NFR	GC	(1)Lumding- Silchar including branch lines	Jan-96	1996-97	08.02.1999	1	02.11.1999	Time taken for: A/c's vetting= 1 month	9
					25.02.1999	1	28.03.2000	Time taken for: A/c's vetting= 1 month	13
					25.02.1999	1	14.11.2000	Time taken for: A/c's vetting= 1 month	21
					14.04.2002	13	17.06.2002	Time taken for: CE's approval= 4 months, A/c's vetting= 9 months	2
					25.02.1999	1	21.11.2000	Time taken for: A/c's vetting= 1 month	21
					01.06.2002	2	25.09.2003	Time taken for: A/c's vetting= 2 month	15
					20.08.2006	1	20.07.2007	Time taken for: A/c's vetting= 1 month	11
		(2)Rangia- Murkongselek along with linked finger lines	Jan-04	2004-05	13.06.2006	8	28.11.2006	Time taken for: A/c's vetting= 7 months, GM's/CAO's approval= 1 month	5
					20.02.2008	0	18.08.08		6
		(3)Katihar- Jogbani (108 km) & Barsoi- Radhikapur (54.26 km), M.M Raiganj- Dalkhola (43.43 km) NL	Jan-98	1998-99	25.10.2001	0	07.11.2001		1

Annexure - 4 (Para Reference 1.6.7.1)

Delay in submission and sanction of detailed estimate

Zonal Rly.	Category of Work (New Line, Gauge Conversion and Doubling)	Name of the Projects	Month and Year of sanction	Month and Year of commencement of works	Month and year of submission of detailed estimate	Time taken in submission of detailed estimate (in months)	Month and year of sanction of detailed estimates	Reasons for delay in submission and sanction of detailed estimate	Time taken in sanction of detailed estimate (in months)
		(3)Katihar- Jogbani (108 km) & Barsoi- Radhikapur (54.26 km), M.M Raiganj-Dalkhola (43.43 km) NL	Jan-98		23.05.2000	3	16.06.2002	Time taken for: A/c's vetting= 3 month	25
					15.03.2004	1	20.10.2005	Time taken for: A/c's vetting= 1 month	19
NWR	GC	(1)Jaipur-Ringus-Churu & Sikar-Loharu (320.04 km)	2008-09	Mar-11	Feb-09	10	May-10	Not made available	15
		(2)Suratpura-Hanumangarh-Sri Ganganagar (240.95 km)	2008-09	Aug-09	Feb-09	10	Jun-09	Not made available	5
SR	GC	(1)Quilon-Tirunelveli-Tiruchendur & Tenkasi-Virudhunagar	1997-98	N.AV.	Estimates were prepared for various sections and submitted to RB for approval(Dates of submission not available)	N.AV. (as the estimates were sanctioned by RB for various stages/sections during the period from 2001 to 2008 and the dates of submission were not available	Estimates were sanctioned by RB at various stages from 2001 to 2008	NAV	NA

Annexure - 4 (Para Reference 1.6.7.1)

Delay in submission and sanction of detailed estimate

Zonal Rly.	Category of Work (New Line, Gauge Conversion and Doubling)	Name of the Projects	Month and Year of sanction	Month and Year of commencement of works	Month and year of submission of detailed estimate	Time taken in submission of detailed estimate (in months)	Month and year of sanction of detailed estimates	Reasons for delay in submission and sanction of detailed estimate	Time taken in sanction of detailed estimate (in months)
		(2)Cuddalore-Salem via Vriddachalam- Gauge conversion with a new line between Chinnasalem and Kallakurichi	1999-00	N.AV.	Estimates were submitted to RB in three stages from 03/2001 to 10/2005-- First Stage	66	Estimate s were sanctioned by RB in three stages from 10/2001 to 01/2006	Administrative delay	7
					2nd Stage			Do	8
					3rd Stage			Do	3
SCR	GC	Akola – Khandwa	2008-09	Yet to commence	06/2009	13	5/2010	NAV	11
SER	GC	(1)Ranchi-Lohardanga (90km)	1996-97	NAV	July-98, Dec-98, Mar-99, Oct-99, May-2000	15	Sept-2000	Various queries made by Rly. Bd	25
		(2)Bankura - Damodar Valley with Material modification	1998-99	NAV	Oct-2000	18	Jan-2001	NAV	2

Annexure - 4 (Para Reference 1.6.7.1)

Delay in submission and sanction of detailed estimate

Zonal Rly.	Category of Work (New Line, Guage Conversion and Doubling)	Name of the Projects	Month and Year of sanction	Month and Year of commencement of works	Month and year of submission of detailed estimate	Time taken in submission of detailed estimate (in months)	Month and year of sanction of detailed estimates	Reasons for delay in submission and sanction of detailed estimate	Time taken in sanction of detailed estimate (in months)
		(i) 1st MM: Rainagar - Masagram	2002-03	NAV	Mar-02	Time taken not calculated as DE submitted and sanctioned in the same year	Sept-2002	NAV	5
		(ii) 2nd MM: Bankura - Mukutmonipur	2005-06	NAV	Feb-05	-do-	June-05	NAV	3
		(iii) 3rd MM: Bowchandi- Khana	2005-06	NAV	Feb-05	-do-	Aug-05	NAV	5
		(iv) 4th MM: Mukutmonipur - Uprasol	2011-12	NAV	Feb-11	-do-	July-2011	NAV	4
		(v) 5th MM: Bankura - Purulia	2011-12	NAV	Feb-11	-do-	July-2011	NAV	4
		(vi) 6th MM: Mukutmonipur - Jhillimilli	2012-13	NAV	Feb-12	N.A.V.	March-2014	NAV	1

Annexure - 4 (Para Reference 1.6.7.1)

Delay in submission and sanction of detailed estimate

Zonal Rly.	Category of Work (New Line, Gauge Conversion and Doubling)	Name of the Projects	Month and Year of sanction	Month and Year of commencement of works	Month and year of submission of detailed estimate	Time taken in submission of detailed estimate (in months)	Month and year of sanction of detailed estimates	Reasons for delay in submission and sanction of detailed estimate	Time taken in sanction of detailed estimate (in months)
SECR	GC	(1)Jabalpur-Gondia incl. Balaghat-Katangi(285 km)	1996-97	1996-97	Part-I Detailed estimate for Gondia Balaghat section submitted to Rly. Board vide CAO letter dtd 17.02.2000. Part-II detailed estimate for Balaghat-Katangi & Balaghat-Jabalpur submitted to Rly. Board vide this Railway letter dtd 19.05.2001.	47	₹. 82.22 Cr sanctioned for Part-I(Gondia-Balaghat) by Rly Bd.on 28.11.2000, ₹ 428.31 Cr sanctioned for Part-II(Balaghat-Katangi & Balaghat-Jabalpur) by Rly Bd. On 21.12.2001 & again ₹ 1.33 Cr sanctioned for Part-II(Balaghat-Katangi & Balaghat-Jabalpur) by Rly. Bd on 07.08.2002 for S&T, HDPE Pipe.	NAV	9

Annexure - 4 (Para Reference 1.6.7.1)

Delay in submission and sanction of detailed estimate

Zonal Rly.	Category of Work (New Line, Guage Conversion and Doubling)	Name of the Projects	Month and Year of sanction	Month and Year of commencement of works	Month and year of submission of detailed estimate	Time taken in submission of detailed estimate (in months)	Month and year of sanction of detailed estimates	Reasons for delay in submission and sanction of detailed estimate	Time taken in sanction of detailed estimate (in months)
SECR	GC	Part-II				62			15
		(2)Chhindwara-Nagpur	2005-06	2005-06	24.9.2007	30	15.01.2009	NAV	16
WR	GC	Ratlam-Mhow-Khandwa-Akola (472.64 kms)	2008-09	Mar-11	NAV	NAV	NAV	Detailed estimate not submitted	NAV
Total	Guage Conversion Projects	18							
Doubling									
CR	DL	(1)Wardha-Sevagram-Nagpur 3rd line	2012-13	Yet to Commence	Under preparation	NAV	NAV	NAV	NAV
		(2)Panvel-Pen	2006-07	2008	Feb.'2007	10	March.' 2007	Not much delay	0
		(3)Pen-Roha	2007-08	2008	Jan.'2008	8	Feb.'2008	Not much delay	0
ER	DL	(1)Pirpainti-Bhagalpur (59.06 km)	2011-12	2013	Civil Estimate-06.06.2011 S&T & Elec-28.09.2011	12	30.03.2012	No delay	6

Annexure - 4 (Para Reference 1.6.7.1)

Delay in submission and sanction of detailed estimate

Zonal Rly.	Category of Work (New Line, Gauge Conversion and Doubling)	Name of the Projects	Month and Year of sanction	Month and Year of commencement of works	Month and year of submission of detailed estimate	Time taken in submission of detailed estimate (in months)	Month and year of sanction of detailed estimates	Reasons for delay in submission and sanction of detailed estimate	Time taken in sanction of detailed estimate (in months)
		(2)Tinpahar-Sahibganj [37.81 km] as Ph-1 of doubling of Tinpahar-Bhagalpur	2009-10	2011	October,2009	6	March,2010	No delay	6
		(3)Sahibganj-Pirpaniti (10.45 km)	2010-11	2012	March,2010	12	Sept,2010	No delay	6
		(4)Nabadwipdham-Patuli	2010-11	2011	October,2010	12	January, 2011	No delay	4
		(5)Sainthia-Tarapith - 3rd line	2011-12	2013	September,2011	12	March,2012	No delay	6
		(6)Tarapith- Rampurhat 3rd line	2012-13	Yet to Commence	February,2013	12	February,2013	No delay	0
ECR	DL	(1) Garhwa Road - Ramna	2013-14	NAV	NAV	NAV	NAV	NAV	NAV
		(2) HJP - Ramdaualu Nagar (47.72 k.m.)	2013-14	August,2013	24.07.2014	16	18.09.2014	Part detailed estimate sanctioned in Aug.2013	2
ECoR	DL	(1)Jharsuguda - Rengali Doubling (25.60 Kms)	2005-06	2005-06	March 2006	12	January 2007	Railway does not consider as delay	10
		(2)Khurda Road - Barang 3rd Line (35 km)	2003-04	2003-04	NAV	NAV	NAV	NAV	NAV
		(3)Rajathgarh - Barang doubling (27 km)	1999-00	1999-00	NAV	NAV	NAV	NAV	NAV

Annexure - 4 (Para Reference 1.6.7.1)

Delay in submission and sanction of detailed estimate

Zonal Rly.	Category of Work (New Line, Gauge Conversion and Doubling)	Name of the Projects	Month and Year of sanction	Month and Year of commencement of works	Month and year of submission of detailed estimate	Time taken in submission of detailed estimate (in months)	Month and year of sanction of detailed estimates	Reasons for delay in submission and sanction of detailed estimate	Time taken in sanction of detailed estimate (in months)
NR	DL	(1)Utratia-Zafrabad doubling of balance 148 km section with MMs for Raibareli-akbarganj (46.9 km) and Sultanpur-Amethi (19.22 km) with new MM of Sultanpur-Kadipur(38.7 km)- new lines	2006-07	2007-08	Apr-06	2	07/2006	NAV	4
		(2)NDLS-Tilak Bridge 5th & 6th line	1998-99	2002-03	04/2000	12	09/2000	Deletion/addition in the estimate	5
SR	DL	(1)TJ-GOC Doubling with Bye pass line before Golden rock	2011-12	09/2012	04/2013	12	04/2014	NAV	12
		(2)Kankanadi-Panamur Patch Doubling	2006-07	01/2009	01/2009	22	Feb-09	NAV	1
SCR	DL	KZJ-BZA 3rd line with electrification	2012-13	Yet to Commence	07/2013	15	08/2014	NAV	13
SER	DL	(1)Goelkera - Monoharpur 3rd Line	1997-98	NAV	NAV	NAV	July-09	NAV	NAV
		(2)Sini - Adityapur - 3rd line	2010-11	NAV	NAV	NAV	Nov-2010	NAV	NAV

Annexure - 4 (Para Reference 1.6.7.1)

Delay in submission and sanction of detailed estimate

Zonal Rly.	Category of Work (New Line, Guage Conversion and Doubling)	Name of the Projects	Month and Year of sanction	Month and Year of commencement of works	Month and year of submission of detailed estimate	Time taken in submission of detailed estimate (in months)	Month and year of sanction of detailed estimates	Reasons for delay in submission and sanction of detailed estimate	Time taken in sanction of detailed estimate (in months)
SECR	DL	(1)Salka Road-Khongsara-Patch doubling(26 km)	2005-06	2005-06	Not made available	Not made available	Not made available	Not made available	Not made available
		(2)Khodri-Anuppur, with flyover at Bilaspur(61.6 km)	2006-07	2006-07	Not made available	Not made available	Not made available	Not made available	Not made available
		(3)Champa-Jharsuguda-3rd line(165 km)	2008-09	2008-09	26.09.2011	42	30.03.2012	NAV	25
SWR	DL	(1)Birur-Shivani (28.67 Kms)	Apr-10	Nov-10	Sep-10	5	Mar-11	Proactive Correspondences among Executive, Associate Finance and Railway Board.	6
		(2)Hosadurga Road-Chickajajur (28.89 Kms)	Apr-10	Nov-12	Jun-12	26	Jul-13	Proactive Correspondences among Executive, Associate Finance and Railway Board.	13
		(3) Ramanagram-Mysore(91.50 Kms)	Apr-07	Aug-07	Feb-08	10	Feb-10	Proactive Correspondences among Executive, Associate Finance and Railway Board.	24

Annexure - 4 (Para Reference 1.6.7.1)

Delay in submission and sanction of detailed estimate

Zonal Rly.	Category of Work (New Line, Gauge Conversion and Doubling)	Name of the Projects	Month and Year of sanction	Month and Year of commencement of works	Month and year of submission of detailed estimate	Time taken in submission of detailed estimate (in months)	Month and year of sanction of detailed estimates	Reasons for delay in submission and sanction of detailed estimate	Time taken in sanction of detailed estimate (in months)
WR	DL	(1)Udhna-Jalgaon with electrification(306.93 kms)	2008-09	Feb-10	11/16/2009	19	7/23/2010	Part detailed estimate was modified with reduced scope of work.	8
		(2)Viramgam-Surendranagar (65.26 kms)	2010-11	Jun-12	8/25/2010	5	10/14/2011	due to earlier decision taken by board that this project is transferred to RVNL and to be executed through PPP.	13
WCR	DL	(1)Bhopal-Bina 3rd Line -143 Kms	2008-09	Oct-09	Mar.08	No delay	Sep-08	No delay	No delay
		(2) Bina-Kota Line 282 Kms	2008-09	Oct-12	May-12	No delay	Sept.12	No delay	No delay
Total	Doubling Projects	31							
Grand Total	NL-56, GC-18, DL-31	105							

1- CR, ECoR, NR, SWR and WCR have nil works of GAUGE CONVERSION.

2- NCR, NFR and NWR have nil works of DOUBLING.

3- NAV stands for Not Available, NA stands for Not Applicable,

Annexure - 5 (Para Reference 1.6.9.3)

Status of Cost-Sharing Projects

Sl. No	Zonal Railways	Category of project*	Name of the project	Month and Year of sanction	Month and year of commencement of project	Physical progress as of March 2014 <i>(in percentage)</i>	Cumulative expenditure till March 2014 (₹ in crore)	Anticipated balance cost of Project (₹ in crore)	Target date of completion	
									Original	Revised
1	CR	1	(1) ANG-Beed-Parli Vaijnath New BG line	1995-96	1996	5.00	299.28	2486.06	1998 (24 months)	Not Revised
2		1	(2) Wardha-Nanded (via Yavatmal-Pusad) (284km)	2008-09	2010	10.00	68.25	2432.68	N.AV.	N.AV.
3		1 and 2	(3) Belapur-Seawood-Uran Electrified Double Line.	1996-97	1996	15.00	372.89	1543.84	2000 (4 years as per narrative report)	Phase I - 12/2013 Phase II - 06/2014
4	ER	1	(2) Deoghar-Dumka [72.25 km]	1998-99	2002-03	100.00	390.01	607.33	2007 [As per MOU dt. 19.2.2002]	Feb' 2011 [As per MOU dt. 28.2.2012]
5		1	(3) Hansdiha-Godda [30 km]	2011-12	Not yet started	0.00	0.87	267.09	2015-16	Not Revised
6		1	Dumka-Rampurhat (NL)	1995-96	Not made available	60.00	445.7	66.76	2005	Feb,2013 [Dumka Rampurhat as per MOU dt. 28.2.2012]
7	ECR	1	(1) Const. of Rly. Bridge over River Ganga at Munger.	1997-98	November, 2002	71.73	1341.09	1020.78	31.12.2007	30.06.2015
8		1	(2) Patna Ganga Bridge with linking between Patna & Hajipur. (19 KM)	1997-98	January, 2002	67.11	2071.80	849.66	31.12.2007	30.06.2015
9		1	(3) Koderma-Giridih (Phase-I) 150 Km	1996-97	August, 2003	72.75	540.94	227.94	N.AV.	N.AV.
10		1	(4) Koderma - Ranchi (189 Km)	1998-99	October, 1998	64.00	1775.34	1181.87	N.AV.	N.AV.

Annexure - 5 (Para Reference 1.6.9.3)

Status of Cost-Sharing Projects

Sl. No	Zonal Railways	Category of project*	Name of the project	Month and Year of sanction	Month and year of commencement of project	Physical progress as of March 2014 (in percentage)	Cummulative expenditure till March 2014 (₹ in crore)	Anticipated balance cost of Project (₹ in crore)	Target date of completion	
									Original	Revised
11		1	(5) Koderma - Tilaiya(68 Km)	2001-02	November, 2004	46.91	219.54	198.63	N.A.V.	N.A.V.
12	NR	1	(1) Nangaldam- Talwara (83.74 Km)	1981-82	1982-83	55.00	383.89	670.94	N.A.V.	Not Fixed
13		1 and 2	(2) Rewari- Rohtak (81.26 Km)	2003-04	2006-07	70.00	532.39	197.26	2011-12	Completed
14		1	(3) Jind- Sonapat (88.90 Km)	2003-04	2006-07	65.00	544.86	103.53	N.A.V.	30.09.14
15		1	(4) Chandigarh- Baddi (33.23 Km)	2007-08	2008-09	0.00	0.00	327.95	N.A.V.	N.A.V.
16		1	(5) Deoband- Roorkee (27.45 Km)	2007-08	2008-09	10.00	159.86	177.05	2012-13	Not Fixed
17		1	(6) Bhanupali- Bilaspur (63.1 Km)	2008-09	2008-09	10.00	40.79	2926.25	N.A.V.	Not Fixed
18		1	(7) Rohtak- Meham- Hansi (68.8 Km)	2012-13	2012-13	0.00	8.50	287.00	N.A.V.	31.03.17
19	NWR	1	(1) Ratlam-Dungarpur via Banswara (176.47 km)	2011-12	Nov-11	1.00	22.10	2060.66	May-16	Not revised
20		1	(2) Thaiyat Hamira - Sanu (58.5 km)	2013-14	yet to commence	0.00	0.00	236.92	not fixed	N.A.
21	SR	1	(4) Attipattu-Puttur	2008-09	N.A.V.	1.00	2.96	512.65	Not fixed	NAP
22	SCR	1	(1) Bidar-Gulbarga	1997-98	12/2003	65.00	520.61	323.54	3/31/2009	3/31/2014
23		1	(2) Cuddapah-Bangalore	2008-09	04/2012	7.00	162.24	1887.76	3/31/2014	3/31/2016
24	SECR	1	(1) Dallirajhara-Jagdarpur(235 Km)	1995-96	1995-96	18.06	151.42	1144.67	N.A.V.	31.10.2016(P hase 1)

Annexure - 5 (Para Reference 1.6.9.3)

Status of Cost-Sharing Projects

Sl. No	Zonal Railways	Category of project*	Name of the project	Month and Year of sanction	Month and year of commencement of project	Physical progress as of March 2014 (in percentage)	Cummulative expenditure till March 2014 (₹ in crore)	Anticipated balance cost of Project (₹ in crore)	Target date of completion	
									Original	Revised
25		1	(2) Wadsa-Gadchiroli(49.5 Km)	2011-12	2011-12	0.00	0.56	231.84	N.AV.	31.12.2020
26	SWR	1	(1) Bagalkot-kudachi (142Kms)	Apr-10	May-12	2.00	40.03	946.27	Not fixed	---
27		1	(2) Bangalore-Sathyamangalam (260 Kms)	1997-98	Work yet to be commenced	0.00	0.68	1382.12	Not fixed	---
28		1	(3) Bangalore-Hassan via Shrvanbelagola (166 kms)	1996-97	May-97	70.00	854.07	435.85	Not fixed	---
29		1	(4) Kadur-Chickmagalur-Sakaleshpur (93Kms)	1996-97	Sep-96	49.00	345.80	543.77	Not fixed	---
30		1 and 2	(5) Munirabad-Raichur (Ginigera-Raichur (165 kms)	Apr-07	Apr-08	15.00	101.50	1249.4	Not fixed	--
31		1 and 2	(6) Rayadurga-Tumkur via Kalyandurga (206 kms)	Apr-07	Aug-11	15.00	276.53	693.81	Not fixed	---
32		1	(7) Shimoga-Harihar(78.66 Kms)	Apr-11	Work yet to be commenced	0.00	0.58	831.99	Not fixed	---
33		1	(8) Tumkur-Chitradurga-Davanagere (199.7Kms)	Apr-11	Work yet to be commenced	0.00	0.63	1800.37	Not fixed	---
34		1	(9) Whitefield-Kolar (52.90 Kms)	Apr-11	Work yet to be commenced	0.00	0.32	348.53	Not fixed	---
	Total						11676.027	30202.77		

Annexure - 5 (Para Reference 1.6.9.3)										
Status of Cost-Sharing Projects										
Sl. No	Zonal Railways	Category of project*	Name of the project	Month and Year of sanction	Month and year of commencement of project	Physical progress as of March 2014 (in percentage)	Cumulative expenditure till March 2014 (₹ in crore)	Anticipated balance cost of Project (₹ in crore)	Target date of completion	
									Original	Revised
1	ER	1	Bardhaman-Katwa [51.52 km] with New Material Modification for Katwa-Bazarsau [30.59 km]- Doubling. Katwa[Dainhat]-Mateswar [34.4 km] Negum-Mangalkot [8.60 km] & Manteswar-Memari[35.6km]-NL	2007-08	2009	50.00	225.81	1088.86	2011-12	Not Revised
2	SR	1	Cuddalore-Salem via Vriddachalam- Gauge conversion with a new line between Chinnasalem and Kallakurichi	1999-00	N.A.V.	93.00	266.66	404.20	No target fixed	NAP
3	SER	1	Ranchi-Lohardanga with extension upto Tori	1996-97	N.A.V.	80.00	375.00	324.01	Initially not fixed when the MOU was signed with state government on 19.2.2002 the TDC was in a time span of 5 years	31.12.15
Total							867.47	1817.07		

Annexure - 5 (Para Reference 1.6.9.3)										
Status of Cost-Sharing Projects										
Sl.No	Zonal Railways	Category of project*	Name of the project	Month and Year of sanction	Month and year of commencement of project	Physical progress as of March 2014 (in percentage)	Cumulative expenditure till March 2014 (₹ in crore)	Anticipated balance cost of Project (₹ in crore)	Target date of completion	
									Original	Revised
1	SWR	1	Ramanagram-Mysore(91.50 kms) Project Code - 15534 / 91676	Apr-07	Aug-07	75.00	591.32	283.25	Mar-13	Apr-14
	Total	1			N.AV. = 0	Range=75% 0% = 0 <10% = 0 10% to 50% =0 Above 50%=1	591.32	283.25	N.AV./Not fixed= 0	N.AV. = 0 Revised = 0
	Grand Total	38 (NL-34,GC-3, DL-1)	Total length = 3551.67 kms. (NL - 3300.46, GC - 159.71 and DL - 91.50)				13134.82	32303.09		
Note :	Cost Sharing projects may be indicated by 1 and other project by 2.									

Annexure - 6 (Para Reference 1.6.9.3)

Liabilities of Indian Railways on Cost-Sharing Projects

Sl.No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Cost of the project		Share of Railways (₹ in crore)/Per cent				Liabilities discharged by the railways	Balance liabilities to be discharged
					Original	Revised	Original		Revised			
					(₹ in crore)	(₹ in crore)	(₹ in crore)	Percentage (%)	(₹ in crore)	Percentage (%)			(₹ in crore)	(₹ in crore)
1	CR	(1)ANG-Beed-Parli Vajinath New BG line	1995-96	1996	353.08	2820.00	176.54	50	1410	50	137.49	2486.08
2		(2)Wardha-Nanded (via Yavatmal-Pusad) (284 km)	2008-09	2010	697.00	2500.00	418.20	60	1500	60	24.86	2432.68
3		(3)Belapur-Seawood-Uran Electrified Double Line.	1996-97	1996	401.80	1814.48	132.59	33	604.83	33	165.18	1543.84
4	ER	Dumka-Rampurhat (phase-II of ampurhat-Mandarhill via Dumka project)	1995-96	Ph-I 2000 Ph-II N.AV.	154.00	512.46 (latest anticipated cost)	51.33 (33.33 % on ₹ 154 crore)	33	230.56 (50% on remaining i.e. 358.46 crore {₹ 512.46 crore - ₹ 51.33 crore})	33	190.64	39.92
5		(2)Deoghar-Dumka [72.25 km]	1998-99	N.AV.	200.00	416	66.67	33.33	174.67 (50% on ₹ 216 crore + 416 crore - ₹ 200 crore)	50% of additional expenditure over and above ₹ 154 crore	162.54	121.3

Annexure - 6 (Para Reference 1.6.9.3)

Liabilities of Indian Railways on Cost-Sharing Projects

Sl.No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Cost of the project		Share of Railways (₹ in crore)/Per cent				Liabilites discharged by the railways	Balance liabilities to be discharged
					Original	Revised	Original		Revised			
					(₹ in crore)	(₹ in crore)	(₹ in crore)	Percentage (%)	(₹ in crore)	Percentage (%)			(₹ in crore)	(₹ in crore)
6		(3)Hansdiha-Godda [30 km]	2011-12	Not yet started	267.09	Not revised	133.55	50	Not revised	50% of additional expenditure over and above ₹ 200 crore	0.87	132.68
7		(4)Bardhaman-Katwa [51.52 km]	2007-08	2009	245.16	Not revised	122.58	50	Not revised	Not revised	103.23	19.35
8	ECR	(1)Const. of Rly. Bridge over River Ganga at Monghyr.	1997-98	November, 2002	815.45	2361.87	531.57	65.8	1246.55	65.80	751.27	495.28
9		(2)Patna Ganga Bridge with linking between Patna & Hajipur. (19 KM)	1997-98	January, 2002	1366.75	2921.46	911.77	66.71	1681.36	66.71	1044.85	636.51
10		(3)Giridih- Koderma (Phase-I) 150 Km	1996-97	October, 2000	371.36	768.88	123.79	33	326.67	33	225.44	101.23
11		(4)Koderma - Ranchi (189 Km)	1998-99	February, 2002	1033.07	2957.21	344.36	33	1311.30	33	635.97	675.33
12		(5)Koderma - Tilaiya(68 Km)	2001-02	November, 2004	418.17	418.17	348.17	83.26	Not revised	Not revised	144.01	274.16
13	NR	(1)Nangaldam-Talwara (83.74 Km)	1981-82	1982-83	23.33	1036.78	0.00	N.A.V.	N.A.V.	N.A.V.	365.84	670.94

Annexure - 6 (Para Reference 1.6.9.3)												
Liabilities of Indian Railways on Cost-Sharing Projects												
Sl.No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Cost of the project		Share of Railways (₹ in crore)/Per cent				Liabilities discharged by the railways	Balance liabilities to be discharged
					Original	Revised	Original		Revised			
					(₹ in crore)	(₹ in crore)	(₹ in crore)	Percent age (%)	(₹ in crore)	Percentage (%)	(₹ in crore)	(₹ in crore)
14		(2)Rewari- Rohtak (81.26 Km)	2003-04	2006-07	149.38	784.32	74.69	50	392.16	50	264.52	197.26
15		(3)Jind- Sonapat (88.90 Km)	2003-04	2006-07	234.45	740.00	117.22	50	370.00	50	233.74	203.53
16		(4)Chandigarh- Baddi (33.23 Km)	2007-08	2008-09	328.14	328.14	164.07	50	164.07	50	0.19	327.95
17		(5)Deoband- Roorkee (27.45 Km)	2007-08	2008-09	160.01	336.92	80.01	50	168.46	50	77.97	177.05
18		(6)Bhanupali- Bilaspur (63.1 Km)	2008-09	2008-09	1046.88	2966.98	1046.88	100	2225.25	75	28.75	2926.25
19		(7)Rohtak- Meham-Hansi (68.8 Km)	2012-13	2012-13	287.00	755.54	143.50	50	377.77	50	0.50	286.50
20	NWR	(1)Ratlam-Dungarpur via Banswara (176.47 km)	2011-12	Nov-11	2082.75	2920.65	1025.90	50	1460.00	50	Nil	Not Applicable
21		(2)Thaiyat Hamira - Sanu (58.5 km)	2013-14	Work yet to be commenced	236.93	236.93	118.47	50	Not Revised	Not Revised	work is to be commenced	work is to be commenced
22	SR	(1)Attipattu-Puttur - New line project	2008-09	NA	527.37	527.37	263.69	50	Not revised	Not revised	2.95	260.74
23		(2)Cuddalore-Salem via Vriddachalam- Gauge conversion with a new line between Chinnasalem and Kallakurichi	1999-00	NA	300.01	556.64	150.01	50	278.32	50	266.66	Nil

Annexure - 6 (Para Reference 1.6.9.3)												
Liabilities of Indian Railways on Cost-Sharing Projects												
Sl.No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Cost of the project		Share of Railways (₹ in crore)/Per cent				Liabilities discharged by the railways	Balance liabilities to be discharged
					Original	Revised	Original		Revised			
					(₹ in crore)	(₹ in crore)	(₹ in crore)	Percentage (%)	(₹ in crore)	Percentage (%)	(₹ in crore)	(₹ in crore)
24	SCR	(1)Bidar-Gulbarga	1997-98	12/2003	369.70	844.15	184.85	50	422.08	50	290.61	131.47
25		(2)Kadapa-Bangalore	2008-09	04/2012	1000.23	2050.00	500.12	50	1025.00	50	46.38	978.62
26	SER	(1)Ranchi-Lohardanga and extension upto Tori	1996-97	N.AV.	147.00	699.01	71.28	33	120.00	50	151.00	323.91
27	SECR	(1)Dallirajhara-Jagdarpur(235 Km)*	1995-96	1995-96	1296.09	N.AV.	452.30	34.9	N.A.	N.A.	1.45	450.85
28		(2)Wadsa-Gadchiroli(49.5 Km)	2011-12	2011-12	232.40	N.AV.	116.20	50	N.A.	N.A.	1.03	115.17
29	SWR	(1)Bagalkot-kudachi (142Km)	Apr-10	May-12	816.14	986.30	408.07	50	493.15	50	40.04	453.11
30		(2)Bangalore-Sathyamangalam (260 Km)	1997-98	Work yet to be commenced	225.00	1382.78	225.00	100	627.35	45	0.68	626.67
31		(3)Bangalore-Hassan via Shrvanbelagola (166 km)	1996-97	May-97	412.91	1289.92	28.71	6.95	438.50	34	700.31	122.40
32		(4)Kadur-Chickmagalur-Sakaleshpur (93Km)	1996-97	Sep-96	157.00	889.57	157.00	100	426.74	48	249.00	177.74

Annexure - 6 (Para Reference 1.6.9.3)												
Liabilities of Indian Railways on Cost-Sharing Projects												
Sl.No	Zonal Railways	Name of the project	Month and Year of sanction	Month and year of commencement of project	Cost of the project		Share of Railways (₹ in crore)/Per cent				Liabilites discharged by the railways	Balance liabilities to be discharged
					Original	Revised	Original		Revised			
					(₹ in crore)	(₹ in crore)	(₹ in crore)	Percentage (%)	(₹ in crore)	Percentage (%)	(₹ in crore)	(₹ in crore)
33		(6)Munirabad-Raichur (165 km) SWR Portion	Apr-07	Apr-08	1224.27	1350.91	612.13	50	675.45	50	101.50	573.95
34		(7)Rayadurga-Tumkur via Kalyandurga (206 km)	Apr-07	Aug-11	857.31	970.34	428.65	50	485.17	50	247.17	238.00
35		(8)Shimoga-Harihar(78.66 Km)	Apr-11	Work yet to be commenced	562.74	832.57	268.77	48	364.81	44	0.58	364.23
36		(9)Tumkur-Chitradurga-Davanagere (199.7Kms)	Apr-11	Work yet to be commenced	913.00	1801.01	427.97	47	838.38	47	0.63	837.75
37		(10)Whitefield-Kolar (52.90 Km)	Apr-11	Work yet to be commenced	341.05	348.85	170.52	50	174.43	50	0.32	174.11
38		(11)Ramanagram-Mysore(91.50 km)	Apr-07	Aug-07	343.18	874.57	113.25	33	328.43	38	307.83	20.60
	Total	No. of Projects in 10 zones=38			20597.20	40673.84	10659.04		19936.2		6966.00	18873.20
Note-	1	ECoR, NCR, NER, NFR, WR and WCR have NIL projects, therefore position of remaining 10 zones has been given in the above table.										
	2	Original Cost of Nangaldam and Talwara Project of NR excluds cost of land, earthwork and wooden sleeper to be borne by HP State Govt.										

Annexure - 7 (Para Reference 1.6.11)							
Status of Acquisition of land of selected Ongoing Projects							
Sl.No.	Zonal Railways	Name of the Projects	Month and Year of commencement of works	Total land to be acquired (in hectares)	Land actually acquired till March 2014	Shortfall in per cent	Reasons for shortfall
1	CR	(1) Ahmednagar-Parli Vajjnath	1996	1507.78	1256.05	16.7	Land acquisition process could not be done due to non expediting of acquisition process
2		(2) Wardha-Nanded (via Yavatmal-Pusad) (284km)	2010	1528.17	126.06	91.75	Delay in submission of land acquisition proposal. Insufficient fund allotment.
3		(3) Belapur-Seawood-Uran Electrified Double line.	1997	188	153	18.62	Land yet to be acquired by CIDCO
4	ECoR	(1) Khurda Road-Bolangir New Line (289 Kms)	1994-95	2659.594	642.026	75.86	Land not handed over by State Govt.
5		(2) Talcher - Bimlagarh (154 Kms)	2003-04	747.175	72.25	90.33	Clearance pending for Forest Land.
6	ECR	(1) Const. of Rly. Bridge over River Ganga at Munger	Nov, 2002	377.02	358.89	4.81	Not furnished
7		(2) Patna Ganga Bridge with linking between Patna & Hajipur. (19 KM)	January, 2002	470.12	472.41	-0.49	Temporary land acquired for stacking of materials
8		(3) Giridih- Koderma (Phase-I)150 Km	October, 2000	2193.54	1455.62	33.64	Not furnished
9		(4) Koderma - Ranchi (189 Km)	1. PhaseI- Feb.2002 2. PhaseII- Feb.2002 3. PhaseIII-	3231.97	2621.54	18.89	Not furnished

Annexure - 7 (Para Reference 1.6.11)							
Sl.No.	Zonal Railways	Name of the Projects	Month and Year of commencement of works	Total land to be acquired (in hectares)	Land actually acquired till March 2014	Shortfall in per cent	Reasons for shortfall
10		(5) Koderma - Tilaiya (68 Km)	November, 2004	350.33	71.23	79.67	Not furnished
11	ER	Dumka-Rampurhat (Phase-II of Rampurhat-Mandarhill via Dumka project [130 km])	Not made available	822.87	822.87	No shortfall	Not applicable
12		(2) Deoghar-Dumka [72.25 km]	NA	791.34	787.90	1%	State Government not yet handed over the land till date (August,2014)
13		(3) Hansdiha-Godda [30 km]	Not yet started	146	0	100%	The detailed estimate not yet sanctioned
14		Rampurhat-Muraroi MM (28.48 km) 3rd line	Not yet started	nil	not applicable	nil	not applicable
15	NCR	(1) Agra-Etawah	2000	525.71	520.64	0.96%	land initially left over for acquisition for which a fresh process has been initiated for acquisition as additional land of 5.0661 hectares.
16		(2) Bhind-Etawah (Part of Guna-Etawah Project)	Jun-05	231.662	208.146	10.15%	Involvement of 23.516 hectares of forest and Wild Life Sanctuary land which is under advance stage of approval and transferred to Railways.
17	NFR	(1) Bogibeel Bridge with linking Lines	1997-98	505.94	505.994	Nil	No delay
18		(2) New Mainaguri-Jogighopa	2000-01	1064.104	954.679	10.28	Land is yet to be handed over by the States of Assam & West Bengal.
19	NER	(2) Maharajgang-Masarakh-Rewa Ghat	2008	132.64	117.81	11.18	not transfer by state govt.
20	NR	(1) Nangaldam- Talwara (83.74 Km)	1982-83	N.M.A.	N.M.A.	NA	NA

Annexure - 7 (Para Reference 1.6.11)							
Sl.No.	Zonal Railways	Name of the Projects	Month and Year of commencement of works	Total land to be acquired (in hectares)	Land actually acquired till March 2014	Shortfall in per cent	Reasons for shortfall
21		(2) USBRL	1995-96	N.M.A.	N.M.A.	NA	NA
22		(3) Rewari- Rohtak (81.26 Km)	2006-07	294.00	294.00	nil	NA
23		(4) Jind- Sonapat (88.90 Km)	2006-07	N.M.A.	N.M.A.	NA	NA
24		(5) Chandigarh- Baddi (33.23 Km)	2008-09	N.M.A.	N.M.A.	NA	NA
25		(6) Deoband- Roorkee (27.45 Km)	2008-09	N.M.A.	N.M.A.	NA	NA
26		(7) Bhanupali- Bilaspur (63.1 Km)	2008-09	N.M.A.	N.M.A.	NA	NA
27		(8) Rohtak- Meham-Hansi (68.8 Km)	2012-13	360.70	0.00	100.00	Payment arranged by state govt. and award awaited.
28	NWR	(1) Ratlam-Dungarpur via Banswara (176.47 km)	Nov-11	1699.93	118.08	93.05	Land is being acquired by the State Govt.and delay in acquiring land is on the part of State Govt.
29		(2) Thaiyat Hamira - Sanu (58.5 km)	yet to commence	380.67	Nil	100	Land acquisition work has been started on 10.03.2014 by Railway Administration.
30	SCR	(1) Nandyal-Yerraguntla	02/2003	679.56	669.914	1.42	Land acquisition under process
31		(2) Peddapalli-Nizamabad(ph.II&III)	08/1994	589.70	589.70	0	Proposal made for additional land
32		(3) Jaggayapeta-Mellacheruvu	03/2007	240.823	110.01	54.32	Land acquisition under process
33		(4) Kadapa-Bangalore(Phase-I)	04/2012	126.00	120.00	4.76	Balance Land acquisition under process
34		(5) Bidar-Gulbarga	12/2003	778	701	9.90	Forest land involved and under process
35	SECR	(1) Dallirajhara-Jagdarpur(235 Km)	1995-96	1554.22	614.14	60.49%	Due to Stage-II clearance from MOEF/NDLS in Ph-I and Joint survey with State Administration is going on.

Annexure - 7 (Para Reference 1.6.11)							
Sl.No.	Zonal Railways	Name of the Projects	Month and Year of commencement of works	Total land to be acquired (in hectares)	Land actually acquired till March 2014	Shortfall in per cent	Reasons for shortfall
36		(2) Wadsa-Gadchiroli(49.5 Km)	2011-12	278.649	0	100%	Detailed Estimate is still to be sanctioned,
37	SER	(1) Bowaichandi-Arambagh (31 km)	N.AV.	490	126.66	74.15	Paucity of Fund
38		(3) Tamluk-Digha, Deshpran-Nandigram with material modification for Kanthi-Egra (26.2 km), Nandakumar-Bolaipanda (27 km) - new line & Nandigram - Kandiamari (Nayachar) (7 km) - new line	N.AV.	N.AV.	N.AV.	-	N.AV.
39	SR	(1) Angamali-Sabarimala	11/2006	517.000	23.170	95.52	Final decision regarding land acquisition and cost sharing of the project with State government yet to be taken
40		(2) Tindivanam - Nagari	N.AV.	647.190	1.8932	99.71	LA proceedings were first initiated by the railway administration only during June 2010 with a delay of 23 months.
41		(3) Tindivanam - Tiruvannamalai	N.AV.	197.240	Nil	100.00	LA proceedings initiated during June 2010 after a delay of 23 months from the date of sanction of detailed estimate (07/2008).
42		(4) Erode - Palani	Work frozen by RB	446.000	Work frozen by RB	Not applicable	Not applicable
43		(5) Attipattu-Puttur	Work not taken up yet	323.760	Nil	100.00	Work is yet to commence since RB is yet to take a decision whether to proceed with the project or not in view of the back out of M/s.EPL to share the cost of the project.

Annexure - 7 (Para Reference 1.6.11)							
Sl.No.	Zonal Railways	Name of the Projects	Month and Year of commencement of works	Total land to be acquired (in hectares)	Land actually acquired till March 2014	Shortfall in per cent	Reasons for shortfall
44	SWR	(1) Bagalkot-kudachi (142Kms)	May-12	991.90	154.66	84.41	Land is yet to be handed over by SLAO and due to implementaion of New Land Acqisition Act 2013
45		(2) Bangalore-Sathyamangalam (260 Kms)	Work yet to be commeced	736.84	0.00	100.00	Non-clearance by Central Empowered Committee and other Authoriries
46		(3) Bangalore-Hassan via Shrvanbelagola (166 kms)	May-97	676.92	620.65	8.31	Due to implemetation of New Land Acqisition Act 2013
47		(4) Hubli-Ankola (167 kms)	Jul-97	805.00	80.00	90.06	Non-clearance by Central Empowered Committee and other Authoriries
48		(5) Kadur-Chickmagalur-Sakaleshpur (93Kms)	Sep-96	642.51	281.78	56.14	Land is yet to be handed over by SLAO and due to implementaion of New Land Acqisition Act 2013
49		(6) Munirabad-Raichur (165 kms)	Apr-08	898.78	433.60	51.76	Land is yet to be handed over by SLAO and due to implemetation of Land Acqisition Act 2013
50		(7) Rayadurga-Tumkur via Kalyandurga (206 kms)	Aug-11	543.72	19.43	96.43	Land is yet to be handed over by SLAO and due to implemetation of Land Acqisition Act 2013
51		(8) Shimoga-Harihar(78.66 Kms)	Work yet to be commeced	488.26	0.00	100.00	Land is yet to be handed over by SLAO and due to implemetation of Land Acqisition Act 2013
52		(9) Tumkur-Chitradurga-Davanagere (200Kms)	Work yet to be commeced	1198.78	0.00	100.00	Land is yet to be handed over by SLAO and due to implemetation of Land Acqisition Act
53		(10) Whitefield-Kolar (52.90 Kms)	Work yet to be commeced	336.84	0.00	100.00	Land is yet to be handed over by SLAO and due to implemetation of Land Acqisition Act 2013

Annexure - 7 (Para Reference 1.6.11)							
Sl.No.	Zonal Railways	Name of the Projects	Month and Year of commencement of works	Total land to be acquired (in hectares)	Land actually acquired till March 2014	Shortfall in per cent	Reasons for shortfall
54	WCR	(1) LAR-SGRL	Jun-02	2778.31	1160.159	58.24%	<ul style="list-style-type: none"> ● Due to delay in finalisation of land cases by Revenue Department and delay in transfer of forest land between -Mawai-KHJB. ● KHJB-Panna section FLS under Process, ● Panna -Satna section FLS done detailed estimate under process ● Rewa-Sidhi Detailed estimate partly sanctioned, (Land & earthwork). ● Sidhi-Slingrauli:- Detailed Estimate sent to Railway Board on 10.7.13 (as per PCDO/PCE/March 2014 .
55		(2) RMA-BPL	Nov-05	1789.84	835.00	53.35%	Due to delay in finalisation of land cases by Revenue department and due to paucity of fund.
56	WR	(1) Chhotaudepur-Dhar	Aug-09	1015	190.394	81.24%	Due to Tribal Area, villagers are opposing land acquisition.
GAUGE CONVERSION							
1	EC R	(1) Sakri-Laukha bazar- Nirmali-Saharsa- Forbesganj(206.06KM) *	December, 2006	Acquisition of Land not involved.			
2		(2) JayNagar - Darbhanga- Narkatiaganj (268 KM)	May, 2002				

Annexure - 7 (Para Reference 1.6.11)							
Sl.No.	Zonal Railways	Name of the Projects	Month and Year of commencement of works	Total land to be acquired (in hectares)	Land actually acquired till March 2014	Shortfall in per cent	Reasons for shortfall
3	ER	(1) Bardhaman-Katwa [51.52 km] with New Material Modification for Katwa-Bazarsau [30.59 km]- Doubling. Katwa[Dainhat]-Mateswar [34.4 km]Negum-Mangalkot [8.60 km] & Manteswar-Memari[35.6km]-NL	2009	263.57	0	100%	Not Applicable Land acquisition not yet been started
4	NCR	(1) Dholpur-Sirmutra	Tender under finalisation	255	under process	100%	Proposals has been sent to Rajasthan state govt.
5	NFR	(1) Lumding- Silchar including alignment between Migrendisa-Ditokchera and extension from Badarpur to Baraigram, M.M Baraigram- Dulabcherra (29.4 km) and Karimganj	1996-97	614.356	580.831	5.46	Brail Forest Land is yet to be handed over by the States of Assam.
6		(2) Rangia-Murkongselek along with linked fingers (510.33 km)	2003-04	57.72	36.84	36.175	Land is yet to be acquired from the District Administration of Sonitpur Distt. of the State of Assam.
7		(3) Katihar- Jogbani (108 km) & Barsoi-Radhikapur (54.26 km), M.M Raiganj- Dalkhola (43.43 km) NL	1998-99	304.43	17.11	94.38*	Due to fund problem.

Annexure - 7 (Para Reference 1.6.11)							
Sl.No.	Zonal Railways	Name of the Projects	Month and Year of commencement of works	Total land to be acquired (in hectares)	Land actually acquired till March 2014	Shortfall in per cent	Reasons for shortfall
8	NER	(5) Aunrihar-Jaunpur	2004	NIL	Not furnished	Not furnished	Not furnished
9	NWR	(1) Jaipur-Ringus-Churu & Sikar-Loharu (320.04 km)	Mar-11	24.16	Nil	100	Not made Available
10		(2) Suratpura-Hanumangarh-Sri Ganganagar (240.95 km)	Aug-09	11.88	Nil	100	i) for 0.239 hectares, new proposal under 2013 new Act was submitted in place of proposal under Act-1894 (ii) The issue regarding Land Acquisition of 8.3958 hectares at Rajgarh was pending (as on 31.03.2014) with SDM, Rajgarh. (iii) For acquisition of land measuring 3.248 hectares at 3KNJ, the case is pending in the Hon'ble High Court, Jodhpur.
11	SCR	(1) Akola-Khandwa	Yet to commence	33.17	0	100	Land acquisition under process
* Not ascertainable as no clear records are available due to frequent change of field offices.							
12	SECR	(1) Jabalpur-Gondia incl. Balaghat-Katangi(285 km)	1996-97	544.55	395.904	27.29%	Due to non clearance of forest land from MOEF/NDLS & due to litigations, due to fund shortage.
13		(2) Chhindwara-Nagpur	2005-06	299.664	295.091	1.52%	Acquisition is in progress
14	SER	(1) Ranchi-Lohardanga	N.A.V.	N.A.V.	N.A.V.	-	Not furnished
			N.A.V.	386.4	386.4	0.00	Not furnished
15		(2) Bankura - Damodar Valley	N.A.V.	N.A.V.	N.A.V.	-	Not furnished
			N.A.V.	322	290.54	9.77	Not furnished

Annexure - 7 (Para Reference 1.6.11)							
Status of Acquisition of land of selected Ongoing Projects							
Sl.No.	Zonal Railways	Name of the Projects	Month and Year of commencement of works	Total land to be acquired (in hectares)	Land actually acquired till March 2014	Shortfall in per cent	Reasons for shortfall
			N.AV.	798.075	477.69	40.14	Not furnished
			N.AV.	642.5	0	100.00	Not furnished
			N.AV.	323.7	0	100.00	Not furnished
			N.AV.	104	0	100.00	Not furnished
16	SR	(1) Quilon-Tirunelveli-Tiruchendur & Tenkasi-Virudhunagar	N.AV.	83.510	0.1431	99.83	Originally at the time of Preliminary Engineering and Traffic survey, the detailed estimate for the project has been prepared based on rough assessment only. However, during execution, the land was acquired based on the actual requirement of Final Location survey. Hence there was huge savings.
17		(2) Cuddalore-Salem via Vriddachalam- Gauge conversion with a new line between Chinnasalem and Kallakurichi	N.AV.	65.740	48.3944	26.39	Work is in progress in Chinnasalem & Kallakurichi New Line section in which the assessed requirement is 45.14 hectares
18	WR	Ratlam-Mhow-Khandwa-Akola	Mar-11	69.56	6.21	91.07%	Award pending with District Magistrate
DOUBLING							
1	CR	Wardha- Sewagram-Nagpur 3rd line	Not commenced	2.65	0	100	A proposal for acquisition of land was submitted to collector in july 2014.
2		Panvel - Pen	2008	22.5654	19.5894	13.18	Delay on account of State Government of maharashtra
3		Pen - Roha	2008	24.1083	20.6414	14.38	-do-

Status of Acquisition of land of selected Ongoing Projects							
Sl.No.	Zonal Railways	Name of the Projects	Month and Year of commencement of works	Total land to be acquired (in hectares)	Land actually acquired till March 2014	Shortfall in per cent	Reasons for shortfall
4	ECoR	(1) Jharsuguda - Rengali Doubling (25.60 Kms)	2005-06	48.502	23.229	52.10	Clearance pending for Forest Land and Govt. Land.
5		(2) Khurda Road - Barang 3rd Line (35 km)	2003-04	NIL	NIL	NIL	Not applicable
6		(3) Rajathgarh - Barang doubling (27 km)	1999-00	5.36	5.36	NIL	Not applicable
7	EC R	(1) Garhwa Road - Ramna	Yet to commence	Acquisition of Land not involved.			
8		(4) HJP - Ramdaualu Nagar (47.72 k.m.)	August, 2013				
9	ER	(1) Pirpanti-Bhagalpur (59.06 km)	2013	2.435	0	Not furnished	Although Detailed Estimate sanctioned FLS now in progress
10		(2) Tinpahar-Sahibganj [37.81 km] as Ph-1 of doubling of Tinpahar-Bhagalpur	2011	4	Land file not available	Not furnished	Not Applicable
11		(3) Sahibganj-Pirpaniti (10.45 km)	2012	0	0	Not furnished	Not Applicable
12		(4) Nabadwipdham-Patuli	2011	2	Land file not available	Not furnished	Not Applicable
13		(5) Sainthia-Tarapith - 3rd line	2013	11.66	Land file not available	Not furnished	Not Applicable
14		(6) Tarapith- Rampurhat 3rd line	Not yet started	3.5	Land file not available	Not furnished	Not Applicable
15	NR	(1) Utratia-Zafrabad doubling of balance 148 km section with MMs for Raibareli-akbarganj (46.9 km) and Sultanpur-Amethi (19.22 km) with new MM of Sultanpur-Kadipur(38.7 km)- new lines	2007-08	23.41	0.00	100.00	No Land was aquired in Doubling-balance 148 km between ZBD-UTR till 31st March 2014

Annexure - 7 (Para Reference 1.6.11)							
Status of Acquisition of land of selected Ongoing Projects							
Sl.No.	Zonal Railways	Name of the Projects	Month and Year of commencement of works	Total land to be acquired (in hectares)	Land actually acquired till March 2014	Shortfall in per cent	Reasons for shortfall
16		(2) NDLS-TKJ (5th & 6th line)	2002-03	N.M.A.	N.M.A.	NA	NA
17	SCR	Kazipet-Vijayawada- 3rd line(Phase 1)	Yet to commence	3.5	0	100	Land acquisition yet to be initiated
18	SER	Goelkera-Monoharpur 3rd line	--	NA	0	0	--
19		Sini-Adityapur	--	NA	0	0	--
20	SECR	(1) Salka Road-Khongsara-Patch doubling(26 km)	2005-06	1.436	0	100%	Stage-II clearance is awaited form MOEF/NDLS
21		(2) Khodri-Anuppur, with flyover at Bilaspur(61.6 km)	2006-07	55.126	13.961	74.67%	Clearance is awaited from MOEF/NDLS
22		(3) Champa-Jharsuguda-3rd line(165 km)	2008-09	0.00	0	0	NA
23	SR	(1) TJ-GOC Doubling with Bye pass line before Golden rock	12/2013	2.000	Nil	100.00	The work was handed over to RVNL during January 2014 and detailed estimate sanctioned during April 2014. Work is yet to commence
24		(2) Kankanadi-Panamur Patch Doubling	01/2009	8.300	Nil	100.00	Scope of work is under revision
25	SWR	(1) Birur-Shivani (28.67 kms)	Nov-10	23.89	10.52	55.96	Land is yet to be handed over by SLAO 2013
26		(2) Hosadurga Road-Chickajajur (28.89 kms)	Nov-12	47.77	0.00	100.00	Land is yet to be handed over by SLAO and due to implemetation of Land Acquisition Act 2013
27		(4) Ramanagram-Mysore(91.50 kms)	Aug-07	68.42	62.35	8.87	Land is yet to be handed over by SLAO and additional land required

Annexure - 7 (Para Reference 1.6.11)							
Status of Acquisition of land of selected Ongoing Projects							
Sl.No.	Zonal Railways	Name of the Projects	Month and Year of commencement of works	Total land to be acquired (in hectares)	Land actually acquired till March 2014	Shortfall in per cent	Reasons for shortfall
28	WCR	(1) BPL-BINA-3DR LINE	Oct-09	Not required	Nil	Nil	Nil
29		(2) BINA-KOTA	Oct-12	10.00	Nil	100%	Work not getting hampered due to land acquisition, since the acquisition is in small patches at some location.
30	WR	(1) Udhna-Jalgaon	Feb-10	Nil	Nil	Not Applicable	Not Applicable
31		(2) Viramgam-Surendranagar	Jun-12	Nil	Nil	Not Applicable	Not Applicable
				45554.72	20982.16	Range 0.96% to 100%	
Note 1 - No case of Gauge Conversion over CR, ECoR, NR, SWR, WCR.							
Note 2 - No case of Doubling over NCR, NFR, NWR.							
*Note 3 - Delay was calculated by audit from the commencement of the work.							
NA denotes not applicable							

ANNEXURE – I (REF. PARA 2.1)					
EXPENDITURE BOOKED FOR WORKS CONTRACTS DURING THE PERIOD 2011-14 ON ALL ZONAL RAILWAYS					
₹ in crore					
Zonal Railway	Year	Open Line		Construction (PU-03 under Grant No. 16 for all sources viz CAP, DRF, DF etc)	Total
		PU-32 in Grant No. 04	PU-3 in Demand No 16	PU-3 in Demand No 16	
1	2	3	4	5	6
IR	2011-12	1216.5	3979.37	6576.08	11771.95
	2012-13	1267.62	4391.52	7031.37	12690.51
	2013-14	1425.19	4766.4	8374.05	14565.64
	Total	3909.31	13137.29	21981.51	39028.11
Does not include figures pertaining to Metro Railway and Production Units					
PU 3 - Demand No 16		Records Payment to Contractors and others for Engineering works or supply and erection contracts etc.			
PU 32 - Revenue grants		Records Contractual payments on works contracts and maintenance contracts on Open Line			

ANNEXURE II (REF. PARA 2.2.1.2)								
LEVEL OF PARTICIPATION IN TENDERS								
Sl. No.	Zonal Rlys.	No of tenders checked	Number of tenders with single bid	Number of tenders with two bids	Number of tenders with three bids	Number of tenders with four bids	No. of tender with five bids and above	Percentage of bids with two or less offers
1	2	3	4	5	6	7	8	9
1	CR	76	14	16	12	9	25	39
2	ECR	78	26	24	13	1	14	64
3	WCR	68	26	22	9	5	6	71
4	SCR	78	5	18	18	12	25	29
5	ER	78	23	24	14	4	13	60
6	NR	72	15	20	10	6	21	48
7	NFR	78	6	19	19	11	19	32
8	NWR	75	22	24	13	4	12	61
9	NER	66	19	19	7	8	13	0
10	SR	78	28	19	12	7	12	60
11	SER	78	23	19	12	15	9	54
12	SWR	78	23	18	12	13	12	53
13	WR	78	13	21	17	13	14	44
14	NCR	78	20	26	13	5	14	59
15	ECOR	78	22	19	17	9	11	53
16	SECR	78	21	17	19	9	12	49
	Total	1215	306	325	217	131	236	52
	%age		25	27	18	11	23	

ANNEXURE- III (REF. PARA 2.2.1.3)																	
DISCHARGED TENDERS																	
Sl. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total/ Average
Zonal Railways	CR	ECOR	ECR	ER	NCR	NER	NFR	NR	NWR	SCR	SECR	SER	SR	SWR	WCR	WR	
Total Number of Tenders discharged during 2011-14	43	102	18	68	58	7	13	170	69	28	134	46	90	119	126	70	1161
Tenders examined in Audit	25	54	14	34	28	7	13	44	65	28	66	41	90	56	33	49	647
Number of cases retendered	5	37	11	23	15	7	8	28	46	12	44	19	29	27	11	21	343
Number of days lost in cases retendered	1985	8128	4193	4683	3833	1024	1157	6074	11605	2048	8912	4157	8661	5078	3015	10913	5342
Number of cases not retendered	20	17	3	11	12	0	5	16	18	15	21	21	61	27	20	28	295
Average Delay in retendering upto 31/3/2014 (days)	605	351	84	268	278	0	662	460	432	293	498	390	555	410	182	273	359
Discharge due to withdrawal of offer of L1	2	2	0	2	1	1	2	2	6	4	5	1	7	9	3	2	49
Discharge due to work not required	0	0	0	0	1	0	0	0	1	1	1	1	0	2	2	0	9
Discharge due to change in scope of work/funds not available/site or drawings not available etc.,	3	11	2	3	6	0	0	12	9	8	8	6	15	10	13	20	126
Discharge due to high rates	7	19	5	10	7	2	2	15	25	6	38	14	47	18	11	17	243
Discharge due to tenderer not qualified or eligible	4	21	7	12	12	2	8	14	19	7	4	18	18	12	4	9	171

Discharge due to Single offer/Insufficient response	2	1	0	7	0	2	0	1	4	2	4	1	3	5	0	1	33
Discharge due to reason not available	7	0	0	0	1	0	1	0	1	0	6	0	0	0	0	0	16
Savings in retendering due to high rates	2	10	1	3	3	0	2	5	14	2	3	5	7	4	5	2	68
	0.44	25.14	1.13	0.94	1.57	0	2.71	3.06	16.54	1.9	15.8	19.27	30.12	0.98	2.31	0.57	122.48
Excess expenditure on retendering due to high rates	1	4	1	2	1	0	0	6	15	1	8	2	7	4	0	0	52
	0.26	2.7	0.11	0.42	1.14	0	0	3.47	17.31	0.42	9.52	3.55	6.85	4.54	0	0	50.29

ANNEXURE IV (REF. PARA 2.3.1)

VARIATION IN QUANTITIES/OPERATION OF NEW ITEMS DURING EXECUTION

Sl. No.	Zonal Railways	No. of tenders checked	No. of contracts with variations	Total Value of contracts with variations	Nos. items originally operated in contracts	Nos. of items with variations beyond 25 percent	Value of Excess	Percentage of excess	Value of Savings	Percentage of savings	Nos. of new items operated	Value of new items	Percentage of new items operated	Revised Value of agreement after variations	Amount of revised PG to be collected
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	CR	76	37	127.25	3485	1546	29.37	23.08	20.94	16.45	463	10.42	35.48	146.12	2334216
2	ECR	78	7	63.99	311	148	9.56	14.94	0.73	1.14	0	0	0	72.82	4498113
3	WCR	68	2	2.07	56	32	0.34	16.43	0.35	16.91	18	0.18	55.09	2.70	318322.4
4	SCR	78	45	227.76	3415	717	54.45	23.91	28.02	12.3	188	3.5	6.43	257.6	8087461
5	ER	78	31	73.95	3091	1460	15.17	20.51	13.6	18.39	212	0.84	6.86	78.98	0
6	NR	72	23	58.21	1151	410	7.95	13.66	4.49	7.71	61	1.12	14.09	62.8	917831
7	NFR	78	31	183.85	1865	727	65.5	35.63	17.63	9.59	354	15.11	23.07	245.5	21634098
8	NWR	75	39	178.2	1940	1216	45.87	25.74	29.79	16.72	474	4.67	10.18	198.9	115907
9	NER	66	10	43.23	736	628	12.73	29.45	9.55	22.09	32	2.39	18.77	48.77	0
10	SR	78	48	158.17	2716	310	16.76	10.6	4.68	2.96	103	0.9	5.37	171.15	6493542
11	SER	78	26	192.07	1162	516	28.67	22.31	17.96	20.62	7	0.15	0.25	192.07	1127769
12	SWR	78	21	133.14	1505	321	39.42	29.61	13.98	10.5	9	0.2	0.51	158.78	35929
13	WR	78	25	166.57	971	341	13.45	8.07	5.25	3.15	14	0.28	2.08	142.63	11098884
14	NCR	78	11	29.04	550	284	6.46	22.25	4.95	17.05	46	1.91	29.57	32.46	1071631
15	ECOR	78	21	68.45	588	248	8.81	12.87	4.85	7.09	65	2.44	27.7	74.89	0
16	SECR	78	13	23.55	258	61	6.86	29.13	3.88	16.48	13	0.27	3.94	26.8	537267
	TOTAL	1215	390	1729.5	23800	8965	361.37	20.89	180.65	10.45	2059	44.38	12.28	1912.9 7	58270970

ANNEXURE V (REF. PARA 2.3.2)										
PREMATURE TERMINATION OF CONTRACTS ON ADMINISTRATIVE ACCOUNT										
Sl. No.	Name of the Zone	Total Contracts fore-closed	Number checked in audit	Number short-closed agreements yet to be retendered	Expenditure on works yet to be re-tendered (₹in crore)	Delay in retendering in days (As on 31-3-2014)		Average delay in days	Number of short closed agreements retendered	Extra expenditure on re-tendering (₹in crore)
						7	8			
1	2	3	4	5	6	7	8	9	10	11
						Min	Max			
1	CR	13	13	8	8.04	200	825	429	5	3.21
2	ECR	3	3	2	7.81	356	486	421	1	7.29
3	WCR	5	4	4	5.32	82	460	235	0	0
4	SCR	18	18	14	7.08	312	852	547	4	10.55
5	ER	6	5	4	21.55	609.00	973.00	787.00	1	0
6	NR	33	12	11	61.2	1	829	304	1	0.58
7	NFR	19	17	15	23.14	101	942	502	2	3.99
8	NWR	7	7	5	5.35	142	462	330	2	1.77
9	NER	1	1	1	8.78	15	15	15	0	0
10	SR	16	8	4	0.88	151	151	151	4	11.11
11	SER	1	1	1	0.46	74	74	74	0	0
12	SWR	16	8	7	4.36	30	516	268	1	1.24
13	WR	71	31	31	42.66	25	1007	341	0	0
14	NCR	6	4	3	3.16	358	762	616	1	1.03
15	ECOR	8	7	5	3.47	182	485	222	2	7.78
16	SECR	36	34	18	24.98	24	622	275	16	0.95
	Total	259	173	133	228.24	1	1007	345	40	49.5

ANNEXURE VI (REF. PARA 2.3.3)													
TERMINATION OF CONTRACTS													
Sl No	Name of the Zone	Number terminated	Number checked in audit	Number terminated agreements yet to be retendered	Delay in retendering in days (upto 31-3-2014)		Average delay in days	Agreement Value of works not re-tendered	Expenditure on works yet to be re-tendered (in ₹)	Number of terminated agreements retendered	Extra expenditure on re-tendering (in ₹)	Amount of SD and PG available for recovery in retendered works (in ₹)	Extra expenditure (in ₹)
					Min	Max							
1	2	3	4	5	6	7	8	9	10	11	Figures in lakhs of rupees		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	CR	31	15	10	38	1076	403	55.09	1.28	5	0.65	0.27	0.38
2	ECR	24	24	20	17	811	316	92.1	37.01	4	1.53	0.04	1.49
3	WCR	33	11	9	116	692	467	8.75	3.21	2	1.24	0	1.24
4	SCR	0	15	14	13	927	501	26.5	2.2	1	1.86	0.02	1.84
5	ER	43	29	7	152	978	428	23.33	3.22	22	23.94	3.58	20.36
6	NR	43	14	9	20	767	330	46.76	7.12	5	2.04	0.31	1.73
7	NFR	10	10	9	67	815	430	57.83	15.17	1	0.96	0.28	0.68
8	NWR	20	19	6	49	686	304	53.03	4	13	16.15	1.32	14.83
9	NER	1	1	1	329	329	329	1.32	0	0	0	0	0
10	SR	13	12	4	117	590	380	50.07	4.66	8	3.66	0	3.66
11	SER	39	11	1	530	530	530	1.56	0	10	5.83	1.48	4.35
12	SWR	24	10	9	213	1033	714	14.5	3.47	1	0	0	0
13	WR	73	39	30	35	902	323	156.06	9.31	9	1.07	0.47	0.6
14	NCR	49	23	21	97	944	426	22.27	7.48	2	4.14	0.22	3.92
15	ECOR	27	10	4	31	1014	688	3.44	0.75	6	0.99	0.92	0.07
16	SECR	43	22	9	649	889	800	27.07	0.97	13	19.38	2.99	16.39
		473	265	163	17	1076	461	639.68	99.85	102	83.44	11.9	71.54

ANNEXURE-VII (REF. PARA 2.3.4)								
PAYMENT OF PRICE VARIATION								
Sl. No	Name of the Zonal Railways	No. of contracts executed during 2011-12 to 2013-14 checked in audit	No. of contracts involving payment of price variation in extended period	Avoidable excess payment of price variation in extended period of contract (in ₹)	No. of contracts involving payment of price variation in extended period due to Railways account alone	Amount paid towards price variation on railways account	No. of contracts	Amount (in ₹)
							On delay due to contractor	
1	CR	76	26	36197309	21	33500165	1	33808308
2	ECR	78	11	34430881	10	30860777	0	0
3	WCR	68	6	1411901	1	40761	0	0
4	SCR	78	22	107514806	5	4267661	4	392199
5	ER	78	12	32828563	8	24247835	0	0
6	NR	72	15	6703394	14	6524563	1	178831
7	NFR	78	11	84454666	11	84454666	0	0
8	NWR	75	15	27421693	8	25679921	1	272807
9	NER	66	17	62194037	17	62194037	0	0
10	SR	78	24	17684869	6	7430189	0	0
11	SER	78	31	79881474	24	70916457	3	1356101
12	SWR	78	30	93193377	29	88832771	0	0
13	WR	78	8	13917824	8	13917824	0	0
14	NCR	78	10	17015741	10	17015741	0	0
15	ECOR	78	15	21752700	11	19981543	3	4476000
16	SECR	78	16	41193286	11	19488373	0	0
	Total	1215	269	677796521	194	509353284	13	40484246

ANNEXURE- VIII (REF. PARA 2.3.4 AND 2.3.5)																	
STATEMENT SHOWING PROFILE OF CONTRACTS IN PROGRESS																	
SI No / Details	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
Name of the Zonal Railway	SCR	CR	ECR	NR	NFR	SR	SER	WR	WCR	ER	NER	NWR	SWR	NCR	ECOR	SECR	
No. of Contracts in progress as on 31st March, 2014	375	247	405	317	1034	680	180	222	228	311	147	102	816	216	206	160	5646
No. of contracts checked	61	38	65	49	156	98	41	40	35	48	29	29	123	43	38	34	927
Contract Value of contracts checked (₹ in crore)	231.39	176.77	606.83	299.55	1986.62	392.92	346.05	266.51	148.48	473.41	255.8	183.56	588.56	170.98	182.3	192.28	6502.01
Values of bills paid so far	179.76	151.23	299.24	99.45	1370.35	192.13	137.58	91.38	58.35	298.54	114.53	119.84	476.28	70.53	32.35	121.9	3813.44
Delay ranging up to (months)	73	55	60	90	85	65	63	49	38	71	50	52	88	63	37	90	90
Extension of contract due to non-availability of drawings	2	7	7	5	1	5	9	5	9	34	13	5	27	3	4	9	145
Extension of contract due to non-availability of clear site	2	12	16	8	33	12	13	1	11	40	21	6	92	3	5	11	286

Extension of contract due to slow progress by the contractor	17	2	0	0	0	15	4	1	6	5	0	4	21	3	1	6	85
Extension of contract due to change in scope of work	6	5	5	1	8	7	7	1	1	10	0	4	32	0	1	1	89
Extension of contract due to non availability of material	6	0	4	4	39	34	11	3	8	21	3	2	8	0	4	8	155
Extension of contract due to other reasons	32	17	50	17	70	91	20	17	10	59	4	13	101	16	9	10	536
Financial implication (price variation paid) or any other	6.5	2.03	20.87	85.99	58.82	7.44	9.27	0.3	3.21	15.74	3.33	2.95	19.61	2.06	0.2	83.07	321.39
Number contracts where Original Validity of completion has not expired	2	15	9	14	28	16	3	12	16	0	10	8	13	9	4	8	167

Money Value (₹ in crore)	7.41	65.28	64.56	141.51	453.23	36.57	32.41	137.46	66.56	0	83.24	52.8	61.09	20.5	8.74	25.38	1256.74
Number of contracts with delays ranging Upto 12 months	15	12	24	20	58	35	12	19	8	12	8	11	45	17	24	16	336
Number of contracts with delays ranging 1 to 2 years	16	5	10	9	34	22	9	6	4	13	7	6	27	8	5	5	186
Number of contracts with delays ranging 2 TO 5 YEARS	23	6	22	5	27	24	16	3	7	23	4	4	36	8	5	5	218
Number of contracts with delays ranging Beyond 5 years	5	0	0	1	9	1	1	0	0	0	0	0	2	1	0	0	20

ANNEXURE-IX (REF. PARA 2.3.4 & 2.3.5)																	
STATEMENT SHOWING PROFILE OF COMPLETED CONTRACTS																	
Name of the Zonal Railway	Contracts completed during 2013-14 during the year	No. of Contracts test checked in audit	No. of contracts completed within due date of completion	Reasons for extensions									Number of contracts with delays ranging				
				No of contract completed in extended period	Contract value	Value of completed contract	Non-availability of drawings	Non-availability of clear site	Slow progress by the contractor	Change in scope of work	Non availability of material	Other reasons	Financial implication (price variation paid) or any other	Up to 12 months	1 to 2 years	2 to 5 years	Beyond 5 years
1	2	3	4	5	6	7	10	11	12	13	14	15	16	17	18	19	20
SCR	106	30	1	29	119.69	2.59	2	3	15	1	3	23	3.77	5	14	10	0
CR	72	19	1	18	60.22	1.62	2	2	1	4	3	8	2.91	3	6	6	0
ECR	16	9	0	9	87.62	0	0	0	0	5	1	4	6.28	0	1	7	1
NR	29	11	0	11	46.82	0	1	4	0	0	1	5	1.44	3	5	3	0
NFR	101	28	0	28	129.51	0	1	3	1	2	4	21	4.21	11	6	9	2
SR	164	35	0	35	101.18	0	0	5	0	3	16	35	5.51	15	11	9	0
SER	40	18	0	18	62.63	0	2	4	9	4	6	9	4.23	7	7	4	0
WR	35	35	4	31	137.47	9.31	2	3	1	2	1	22	4.21	14	6	11	0
WCR	37	9	1	8	31.88	2.25	3	3	4	0	1	7	1.27	4	3	1	0
ER	74	20	0	20	267.55	0	2	2	1	1	3	4	11.57	6	12	2	0
NER	65	17	0	17	55.12	0	8	24	0	1	16	5	4.26	5	8	4	0
NWR	49	15	0	15	58.44	0	5	6	0	8	1	13	2.35	8	6	1	0
SWR	74	22	0	22	102.86	0	1	0	0	0	0	22	5.76	10	1	11	0
NCR	60	19	3	16	71.48	10.38	0	3	1	0	3	11	3.22	8	4	4	0
ECOR	51	16	7	9	68.73	27.29	1	4	2	2	4	4	5.39	6	3	0	0
SECR	31	10	1	9	38.38	2.75	0	4	0	0	0	6	0	4	0	5	0
Total	1004	313	18	295	1439.58	56.19	30	70	35	33	63	199	66.38	109	93	87	3

ANNEXURE-X (REF. PARA 2.3.4)

DELAYS IN EXECUTION OF CONTRACTS/WORKS - EXTENSIONS TO CONTRACTS

Sl. No.	Name of the Zone	Number of contracts checked	Number of contracts due for completion as on 31.03.14	Number of contracts completed within due date	Number of contracts where extensions have been granted	Extensions on account of contractor	Extensions on account of Railways	Extensions on account of to Both	Average number of days of delay in extension beyond due date of completion	Amount of damages due for recovery on cases of delay on contractors account	Amount levied and recovered (including token damages)	Penal Damages not levied	Number of days lost due to extension	Money value of agreements (extensions)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	CR	76	58	0	58	5	47	6	359	981022	639000	342022	19530	7577.52
2	ECR	78	70	1	69	0	67	2	443	194007	181587	12420	26572	292.2
3	WCR	68	46	0	44	13	15	16	450	1258448	1227448	75363	12048	135.98
4	SCR	78	70	0	70	29	32	9	535	66362818	2000	66360818	45514	427.22
5	ER	78	49	1	48	3	39	6	304	494813	500	494313	16732	283
6	NR	72	50	0	50	9	34	7	313	36500	35000	0	15635	170.23
7	NFR	78	65	4	61	0	61	0	512	0	0	0	20872	270.05
8	NWR	75	70	11	59	15	35	9	281	11407832	206000	11407832	11811	240.18
9	NER	66	46	0	45	0	45	0	171	0	0	0	14185	297.49
10	SR	78	54	2	52	6	35	11	411	17831417	0	17831417	21372	202.08

11	SER	78	51	0	51	7	38	6	625	1651000	100000	1551000	31890	359.6
12	SWR	78	60	1	59	1	57	1	385	483360	24000	459360	22705	285.91
13	WR	78	59	0	59	2	54	3	299	218000	218000	0	17617	268.08
14	NCR	78	52	0	52	16	35	1	376	7152308	612721	6539587	19543	168.34
15	ECOR	78	47	9	38	11	24	3	271	10741002	143868	10597134	10279	146.11
16	SECR	78	48	2	46	18	23	5	366	19509081	505000	19004081	15595	210.2
	Total	1215	895	31	861	135	641	85		138321608	3895124	134675347	321900	11334.19

ANNEXURE-XI (REF. PARA 2.3.7)													
ARBITRATION PROFILE													
Sl. No.	Name of the Zone	No of Arbitration cases checked	Number of cases with delay in nomination of Arbitration Tribunal	Average time taken refer to Arbitration Tribunal from date of recording claim	Number of cases due to following reasons of Dispute								
					Dispute in Claims	Dispute in measurement	Non-availability of drawing/design	Non-availability of site	Short/non-delivery of material	Change in scope	Wrong termination of contract	Non-availability of funds	Others
1	CR	13	12	408	2	1	2	3	1	1	0	1	2
2	ECR	10	4	279	0	2	0	0	0	0	7	1	
3	WCR	10	4	256	1	3	0	4	0	0	0	0	2
4	SCR	22	20	440	19	0	0	0	0	0	1	2	
5	ER	11	2	182	0	0	0	0	1	0	8	0	2
6	NR	19	1	32	4	0	1	0	0	2	1	0	1
7	NFR	12	5	423	1	1	1	2	0	0	5	0	2
8	NWR	9	7	1734	2	1	0	2	1	1	1	0	1
9	NER	6	0	10	4	0	0	0	1	0	1	0	0
10	SR	19	3	122	9	0	2	0	0	2	4	0	2
11	SER	16	8	526	7	2	0	0	0	0	7	0	0
12	SWR	13	9	9	3	0	1	0	0	1	6	0	2
13	WR	7	5	1856	2	0	0	3	0	0	0	0	2
14	NCR	10	2	1711.5	4	0	1	2	1	0	0	0	2
15	ECOR	15	2	73	5	0	0	0	1	0	8	0	1
16	SECR	22	5	180	4	1	1	3	0	1	8	0	4
	Total	214	89	515	67	11	9	19	6	8	57	4	23

ANNEXURE XII (REF. PARA 2.3.7)											
ARBITRATION CASES SETTLED AND PENDING											
Sl. No.	Name of the Zonal Railways	No. of arbitration cases outstanding as on 31.03.2011	No. of arbitration cases accrued during the period 2011-12 to 2013-14	No. of cases settled in favour of Railways	No. of cases settled in favour of contractors	No. of arbitration cases pending as on 31.03.2014					Total amount paid towards arbitration award during the period 2011-12 to 2013-14 (in ₹)
						Less than one year old	Less than two years old	Less than three years old	Less than four years old	More than four years old	
1	CR	261	42	6	23	3	17	13	21	220	133207532
2	ECR	72	32	5	12	12		35	0	40	7582686
3	WCR	27	3	1	9	0	1	0	0	19	1842206
4	SCR	307	19	19	33			137		137	5572129
5	ER	90	38	2	22	3	18	23	9	51	1436775
6	NR	86	14	7	12	4	6	4	0	67	8689459
7	NFR	52	22	2	24	4	6	6	5	22	44279212
8	NWR	49	13	1	8	9	4	0	3	37	3863397
9	NER	2	4	0	0	1	1	1	3	0	6982
10	SR	120	98	7	46	22	27	12	69	35	40780524
11	SER	57	33	9	7	11	7	13	14	29	16142835
12	SWR	57	21	9	20	6	4	8	8	23	18392346
13	WR	51	14	4	3	6	4	8	5	35	61651
14	NCR	72	54	14	29	15	18	16	10	24	2108511
15	ECOR	38	17	5	9	7	10	1	1	21	11804223
16	SECR	31	42	10	21	10	15	3	2	12	18223533
		1372	466	101	278	113	138	280	150	772	313994001

ANNEXURE 1 (PARA REFERENCE 4.4.2.4)

STATEMENT SHOWING SUMMARY OF CHANGE PROPOSALS AND THEIR STATUS

Brief description	Initiated by	Request for change by employer	Estimate for proposal by contractor			Proposal by contractor, compliance to Clause no. 39.2.3					Pricing by	Change order		Pending change order	Remarks by IRPMU	Remarks by Committee	
			Clause No. 39.2.1	Clause No. 39.2.1	Clause No. 39.2.1	Clause No. 39.2.1	Clause No. 39.2.1	Clause No. 39.2.1	Clause No. 39.2.1	Clause No. 39.2.1		Clause No. 39.2.1	M/s ASC				
2	3																
3 rd line work on GZB ALIN	IRPMU (Directions of Railway Board)	YES	Not Submitted	NA	YES	Initially for 20 months when submitted for complete scheme finally no time asked	Yes	No	No change	8135870.3	147887495	Not issued	Not issued	Rates not agreed by ASC and applied for Adjudication. It is to be noted that M/s ASC has been selective in accepting rates. While same rates have been accepted for fog signalling, CPU & EEPROM PCB and dual detection, these have not been accepted for 3rd line work	Initial proposal modified. Change proposal not processed as per clause 39.2, however, rates for lump sum items as worked out by committee has been discussed and negotiated with contractor but there is variations in total cost as contractor has not agreed rates of all items. Employer has issued variation order which can be considered as pending agreement change order. Contractor has referred the matter for adjudication. However, work is being done in GZAALIN with		

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															3rd line.
Fog signalling in 9 block section on PNK-GZB section	IRPMU (Directions of Railway Board)	YES	Not Submitted	NOT GIVEN	NOT GIVEN	NOT GIVEN	Yes	NOT GIVEN	NOT GIVEN	10063 628	Not issued	Not issued	Change proposal not submitted in format. Rates agreed by IRPMU & ASC	The work has already been completed even before the approval of change order. Contractor has now agreed with the rates as worked out by SAG committee and has submitted the revised proposal on 25.03.2013 and is under finance vetting.
Varlation due to Dual detection work	IRPMU (Directions of Railway Board)	YES	Not Submitted	NOT GIVEN	Yes	NOT GIVEN	Yes	The value of guarantee to be increased	No change	.....	26725 6220	Not issued	Not issued	ASC asked to submit fresh proposal after deleting the supply of, Cable(to be supply /returned by Railway), Power supply Joint field verification etc.	Work has been completed long ago even though change order has not been given. Employers understanding is that Axle counter for station yard has been utilised in block section and there will only be minor financial implication due to increase in quantity of cable. However, Contractor had submitted cost implication of Rs. 26.72 crores which has not been verified and agreed by employer and they have recently requested contractor to
DC track circuit in station section	IRPMU (Directions of Railway Board)	YES	Not Submitted	NOT GIVEN	Yes	NOT GIVEN	Yes	The value of guarantee to be increased	No change	Cost included in 3(a)	NA	NA		

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																resubmit the change proposal.
Supply of spares	IRPMU (Request of NCR)	YES	Not Submitted	NA	NA	NA	NA	NA	NA	43657897	Not submitted	NA	NA	ASC refused to supply additional spares at contract rates. The contractor is being selective in accepting rates. Therefore, the go ahead itself is under dispute.	It is seen that this proposal has been initiated in Nov. 12 and even now proposal is not processed as per GCC clause 39.2	
change of steel roof truss in place of RCC slab at CTC building	ASC	NO	Not Submitted	NA	Yes	No effect	NA	No change	No change	NA	NA	Not issued	Not issued	Initially change proposal submitted in 2009 & lost. Fresh proposal is submitted Aug. 2011 & under process in IRPMU.	There has been many changes for CTC building and now it has been decided that building already constructed shall be used and approval of change proposal in under approval. There is no financial implication.	
Power supply arrangement for GSM-R due to shifting from Tundla to kolkata, Deletion of MSC & child	IRPMU (Directions of Railway Board)	YES	Not Submitted	NA	Yes	NOT GIVEN	Yes	No change	No change	73406902(saving)(ref JAG)	Deletion USD 545829 and INR 197702 increased.	Not issued	Not issued	M/s ASC asked to submit the change proposal after deletion of exchanges, CER and MUX but not submitted. IRPMU prepared variation and send to ASC for acceptance		

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exchange, Mother exchange, CER and MUX															
Change of currency for some item	ASC	NO	Not Submitted	NA	Yes	NOT GIVEN	Yes	No change	No change	as per currency conversion rate of contract	Not issued	Not issued		Proper documents not submitted by ASC. Asked to resubmit vide dated 01.03.2013	Proper documents not submitted by contractor. Asked to resubmit vide dated 01.03.2013 and during follow up meeting on 16.04.2013. This may not have any financial implication.
Change of vendor for GSM-R	ASC	NO	NA	NA	Yes	NOT GIVEN	Not given	Not given	No change	NA	NA	Issued	NA	Change proposal not submitted in proper format.	Change proposal approved on 29.06.2011
Change in currency of STM1-SDH equipment	ASC	NO	NA	NA	Yes	NOT GIVEN	NA	NOT GIVEN	NOT GIVEN	as per currency conversion rate of contract	Not issued	Not issued		Change proposal not submitted in proper format.	As per legal opinion obtained, there is no provision in contract for such change. Under finance vetting. No financial implication.
Revised consortiun agreement	ASC (change imposed on IR by ASC)	NO	NA	NA	Yes	NOT GIVEN	NA	No change	No change	as per currency conversion rate of contract	Not issued	Not issued		Consortium partners started the work of construction of tower and shelters by changing responsibilities among themselves without approval. Change proposal not submitted in proper format.	Vetted by legal cell on 04.04.2013 and under vetting clarifications asked from Contractor.

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vendor Change for AFTC	ASC (change imposed on IR by ASC)	NO	NA	NA	Yes	NOT GIVEN	Nil	No change	No change	as per currency conversion rate of contract	Not issued	Not issued		M/s ASC refused to accept the rates of IRPMU	
Not AFTC in station yard	IRPMU	YES	Not Submitted	NA	NA	NA	NA	NA	NA	138684225(saving)(ref JAG)	NA	Not issued	Not issued	Change proposal not yet submitted in spite of reminders.	Contractor has accepted the proposal and work is being done accordingly. However, now contractor has refused to accept deletion of AFTCs.
Seperation of UP and DN power supply for AFTC	IRPMU	YES	Not Submitted	NA	Yes	NOT GIVEN	Yes	No change	No change	.....	1939739	Not issued	Not issued	Change proposal under scrutiny by IRPMU	Contractor has submitted the variation proposal. Being minor increase, shall be processed by employer with other change proposals.
Change of sub vendor for 3 Phase Point Machine	IRPMU	NO	NA	NA	Yes	NA	NOT GIVEN	No change	No change	NA	NA	Issued	.....	Change proposal not submitted in proper format.	Change proposal approved by Employer
Change proposal for supply of CPU and EEPROM PCB from USA to India	ASC	NO	NA	NA	Yes	NA	NA	No change	No change	as per rates of contract and currency conversion rate of contract	Not issued	Not issued		Rates agreed by IRPMU & ASC. Change proposal sent for GM's approval. Returned for re-examination	Change proposal submitted by contractor and It has been vetted by finance and is under approval.

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execution of 7 big yard with yard remodelling	IRPMU	YES	NA	NA	NA	NA	NA	NA	NA	28723315(saving)(ref JAG)	NA	Not issued	Not issued	Change proposal not yet submitted in spite of reminders.	It is seen that employer has not formally requested Contractor to submit the change proposal and their remarks that matter is pending deliberation of HAG committee is un called for. The committee feels that this proposal falls under general scope of facilities. Employer to immediately process for change proposal in proper format without waiting for HAG committees recommendations.
Change proposal for Phoenix CTC system to SCC CTC system	ASC (imposed on IR by ASC)	NO	NA	NA	Not given	NA	No change	No change	No change	NA	No change	Not issued	Not issued	Change proposal under scrutiny by IRPMU	Change proposal recently received and under scrutiny of employer.
Change proposal for wall display system of CTC	ASC (imposed on IR by ASC)	NO	NA	NA	Yes	NA	No change	No change	No change	NA	No change	Not issued	Not issued	Change proposal under scrutiny by IRPMU	Change proposal recently received and under scrutiny of employer.

ANNEXURE- 2 (PARA REFERENCE 4.4.2.4)							
STATEMENT SHOWING CHANGE PROPOSALS PENDING ON ACCOUNT OF M/S ASC							
Sl. No.	Brief Description change proposal	Variation by		Approx. payment due (in Indian Rupee)	Decision in meeting with CAO on 13.12.13 and further in meeting with GM/NC Railway on 20.01.14		
		IRPMU	M/s ASC		IRPMU's remarks	Requirement from M/s. ASC	Contractual provision
1	3rd line work on GZB-ALJN	8135870.27	147887495	8109092	Rates not agreed by ASC and applied for adjudication. It is to be noted that M/s ASC has been selective in accepting rates. While same rates have been accepted for Fog signalling, CPU and EEPROM PCB and dual detection, these have not been accepted for 3rd line work. Board vide their letter No. 2012/SIG/KFW/confidential, dated 17.10.2013 has asked CSTE/NCR to adjudicate on the matter expeditiously.	ASC to agree with rates worked out by Railway which are based on contract rates and rates arrived at by SAG committee nominated by GM/NCR on 2009	As per GCC clause 6 and SCC clause 4 for settlement of dispute
						Further action to be taken as per decision of adjudicator	
2(a)	Variation due to dual detention work	Nil	267256220	0	** Variation of cable laying, location boxes, terminations etc. not yet estimated, the same will be at joint verification at site.	ASC refused to agree with methodology of Railway and joint verification of site for assessment of variation and did not agree for deletion of works to be done in station section.	As per GCC clause 7(c) for deletion
2(b)	DC track circuit in station track section	Nil	Cost included in 3(a)	0			
3	Power supply arrangement for GSM-R due to shifting from Tundla to Kolkata. Deletion of MSC & child	73406902	Deletion USD 545829 and INR 197702 increased	118621.2	M/s ASC asked to submit change proposal after deletion of exchanges, CER and MUX. IRPMU prepared variation and send to ASC for acceptance which	ASC to submit revised change proposal including the deletion of mother exchange, child exchange, CER and MUX or accept variation sent by IRPMU	As per GCC clause 7(c) for deletion

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	exchange, mother exchange, CER and MUX			(60% of positive variation consider)	they have refused to accept	ASC did not agree for deletion of any item	
4	Change of currency for control unit basic hardware(Moxa, RS232OF modem serial comm. cable)	51442723	51442723	0	Proper documents not submitted by ASC. Asked to resubmit	ASC to submit required documents 1. Certificate of country of origin. 2. Bill of entry etc. For processing the Bill.	As per clause 3.2 of contract agreement
						M/s ASC could not submit documents even after a lapse of one month.	
5	Vendor change for AFTC and	57664109		34598465	M/s ASC refused to accept the rates of IRPMU	ASC to agree with rates worked out by Railway which is based on contract rates	As per GCC clause 7(c) for deletion
	No AFTC in station yard	138684225 (saving)	NA	0	Change proposal not yet submitted in spite of reminders. M/s ASC has refused to accept negative variation	ASC to agree with deletion of AFTC of station area	
						M/s ASC refused to agree with the deletion of AFTC in station area.	
6	Execution of 7 big yards with yard remodelling	28723315 (saving)	NA	0	Change proposal not yet submitted in spite of reminders.	ASC to submit the change proposal for variation including rates due to yard remodelling as per unit rates of IRPMU worked out for 3rd line.	As per GCC clause 1.3 system validation
7	Change proposal for phoenix CTC system to SCC CTC system	134401802.1	134401802.1	0	Change proposal under scrutiny by IRPMU. M/s ASC has been asked to submit clarifications as per RDSO's requirement.	ASC to submit the required documents for RDSO clearance including 3rd party validation	

ANNEXURE-3 (PARA REFERENCE 4.4.2.4)								
STATUS OF PROVISION OF FUND AND ACTUAL EXPENDITURE DURING 2009-10 TO 2013-14 AGAINST LOAN WORKS								
/PROJECTS (₹ in crore)								
Sl. No.	Year of inclusion in Budget	Name of the Project/work	Total 2009-10 to 2013-14			Variation Excess or shortage		Total expenditure up to 31.03.2014
			BG	FG	AE	Between BG & FG	Between FG & Actual Expenditure	
1	2	3	22	23	24	25	26	27
1	1995-96 (NR/PB - 161)	Ghaziabad-Kanpur:Repl. of signalling gears by electronic interlocking (5 stations)	310581	169717	169343	140864	374	186372
2	2003-04 (GB-14)	Aligarh-Kanpur :Provision of continuous track circuiting with ABS on Aligarh-Kanpur section on golden quadrilateral/Rajdhani, Shatabdi route (33 block sec.).	707771	767163	750948	-59392	16215	980946
1	Original 1997-98(NR/PB - 220) NCR 2004-05 (NCR/PB - 171)	Tundla -replacement signal gear by RRI.	199290	111155	93151	88135	18004	283089
2	1996-97	GZB-TDL:Repl. Of signal equipment by solid state interlocking (7 stations).	547076	419732	165152	127344	254580	228892
3	1998-99	Ghaziabad - Kanpur:Repl.of signalling gears by electronic interlocking (15 stations).	394242	375645	317488	18597	58157	633130
4	1996-97	Ghaziabad-Kanpur: Repl. of gears by SSI (19 stations).	582000	483644	430398	98356	53246	627294
5	1998-99	Ghaziabad-Kanpur modernisation of signals.	178000	203308	189579	-25308	13729	309269

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6	1997-98 (PB/34)	Ghaziabad-Aligarh : Automatic Signalling	302325	109085	104122	193240	4963	167349
7	2002-03	Etawah-Indoor equipment recording system & control equipment in connection with control centre.	1108020	194964	176238	913056	18726	380716
8	2002-03	Aligarh Jn-Indoor equipment recording systems & control equipment in connection with control centre.	393484	257189	227739	136295	29450	404203
9	1998-99 (PB-287)	Delhi-GZB-Panki replacement of RE cable by OFC cable.	630151	452527	425247	177624	27280	612737
BG=Budget Grant			5352940	3544129	3049405	1808811	494724	4813997

ANNEXURE 4 (PARA REFERENCE 4.4.2.4)

STATEMENT SHOWING STATUS OF ELEVEN MAJOR SIGNAL & TELECOMMUNICATION WORKS ON GHAZIABAD-KANPUR ROUTE WHICH WERE ASSIGNED TO IRPMU FOR EXECUTION THROUGH AWARDED TO M/S ASC UTILISING KFW LOAN AS ON 31 MARCH 2015

SI . N o.	Particulars of works	Year of sanction	Original/ revised cost (₹in crore)	Latest anticipated cost (₹in crore)	Expenditure up to March 2015 (₹in crore)	Physical progresses	Financial progress	Scope and status of work	Outlay proposed for 2015-16	Target date of completion
1	Replacement of signalling gears by electronic interlocking (15 stations) in Ghaziabad-Kanpur section	1998-99	51.85	85.43	64.89	85%	76%	Scope- Electronic Interlocking on (15 stations) MIU, DER BDN, EKL, BNT, SHW, ULD, PTX, PHD, KNS, JJK, AAP, RRH, MTO, BPU. Status- Work completed on 14 stations. Balance one yard targeted for completion November 2016.	20	Sept 2016
2	Track circuiting with automatic block signalling in golden quadrilateral/Rajdhani and Shatabdi route- Aligarh-Kanpur route	2003-04	92.66	107.29	102.95	100%	96%	Scope – Automatic signalling on 33 block sections on ALJN-CNB Section. Status- Work completed on all 33 block sections and Revised Estimate was under process.	3.80	not applicable

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3	Replacement of gears by electronic interlocking (19 stations) on Ghaziabad-Kanpur section	1996-97	48.99	139.33	67.58	60%	49%	Scope – Solid State Interlocking on (19 stations) CPYZ, WIR, SKQ, KRJ, DAR, DAQ, MXK, SNS, HRS, PRA, JLS, CMS, BRN, MIT, FZD, BBL, SB, ETW, PNK. Status – Work completed at 15 stations. Four remaining Way side stations are SKQ, Major yard-ETW, KRJ and PNK estimated date of completion is June-15, May-15, April 16 and Sept 16 respectively. ESP/SIP have been approved.	NIL	June-2016
4	Replacement of signalling gears by route relay interlocking at Tundla	1997-98	34.74	34.74	29.23	ZERO	84%	Scope- Electronic Interlocking at Tundla. Status – ESP under revision. Work to be done along with yard remodelling.	2.64	June – 2017
5	Modernization of signals on Ghaziabad-Kanpur route	1998-99	40.35	40.35	35.91	20%	89%	Scope- Provision of CTC at Tundla and PNK- GZB section. Status – CTC equipment comprising of wall display board using Digital Light Processing communication/Databases servers and controller desk for one territory (7 stations) has been installed in the recently completed CTC building at Tundla.	5.36	Dec- 2015

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								Software testing has been completed for 6 stations and is under progress for the 7 th stations i.e. Shikohabad CTC. Software has been loaded at the first way side station i.e. Hirangaon. Operation of Hirangaon conducted successfully from CTC. Loading of software at balance stations is in progress. Trail be taken up in May 2015 after the software is loaded at all the 7 stations.		
6	Replacement of Signal equipment by electronic interlocking (7 stations) on Ghaziabad-Tundla section	1996-97	9.22	52.31	24.34	40%	69%	Scope- Electronic Interlocking on (seven stations) ALJN, MWUE, KLA, SOM, CHL, DKDE, AJR. Status – Work completed at 5 stations. Out of balance 2, way side station at CHL is targeted for completion by April 15 and of ALJN, to March 16. ESP/SIP approved)	6	Dec- 2015
7	Replacement of signalling gears by solid state interlocking (5 stations) on Ghaziabad-Kanpur	2002-03	6.21	37.91	24.56	100%	65%	Scope – Electronic Interlocking at 5 stations JGR, KAA, HNG, MNR, SKB. Status- Work completed. Revised Estimate under process.	4	-
8	Indoor equipment,	2002-03	40.76	73.90	40.87	50%	55%	Scope – Provision of –	10	Dec- 2015

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	recording systems & control equipment in connection with control centre at Aligarh							MTRC on 780 RKM consisting of 62 towers, 90+2/IRISET BTS, 1 BSC & 1 MSC & ISDN exchange at 54 locations in GZB-MGS Section.		
9	Indoor equipment recording system & control equipment in connection with control equipment in connection with control centre at ETW.	2002-03	37.77	62.30	38.33	50%	62%	Status – MTRC Test commissioned on ALJN-ETW section (180 KM). Drive Test completed. 22 ISDN exchanges installed. Towers erected 43, BSC erected 01+01/IRISET, BTS erected 21+02/IRISET.	12.70	Dec- 2015
10	Replacement of Cable by optic fibre cable Delhi – Ghaziabad-Panki section	2003-04	63.25	63.25	62.96	88%	100%	Scope- Provision of OFC (908 kms) along with quad cable in Delhi-Ghaziabad-Panki section Status – 875 kms of OFC out of total 908 kms and 383.62 kms of quad out of 454 kms. Laid.	2	Dec-2015
11	Automatic block signalling on Aligarh – Ghaziabad section	1997-98	19.77	40	18.37	65%	46%	Scope – Provision of Automatic signalling in 14 block sections. Status – 10 block section commissioned. Target for balance 04 sections – July, 15	16	June 2015

Original/ revised cost- ₹ 445.57 crore

Last anticipated cost- ₹ 736.51 crore