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Report of the Comptroller and Auditor General of India

For the year ended March 2017

Union Government (Railways)

Report No. 5 of 2018

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Comptroller and Auditor General
of India

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Laid in Lok Sabha/Rajya Sabha on _____

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Preface

The Report for the year ended March 2017 has been prepared for submission to the President under Article 151 of the Constitution of India. Chapter 8 of the Report which pertains to Public Sector Undertakings under the Ministry of Railways has been prepared for submission to President under Section 19(A) of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service (DPC)) Act, 1971 as amended in 1984.

The Report contains significant results of the compliance audit of the Ministry of Railways of the Union Government, including Railway Public Sector Undertakings and Autonomous Bodies.

The instances mentioned in this Report are those, which came to notice in the course of test audit for the period 2016-17 as well as those which came to notice in earlier years, but could not be reported in the previous Audit Reports; instances relating to the period subsequent to 2016-17 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.

Contents

Abbreviations

Abbreviation	Full form
AMC	Annual Maintenance Contract
ARP	Advance Reservation Period
ATN	Action Taken Note
CC	Carrying Capacity
CCM	Chief Commercial Manager
CE	Chief Engineer
CEE	Chief Electric Engineer
CLW	Chittaranjan Locomotive works
CME	Chief Mechanical Engineer
COM	Chief Operations Manager
CONCOR	Container Corporation of India Limited
COS	Controller of Stores
CR	Central Railway
CRB	Chairman Railway Board
CRIS	Centre for Railway Information Systems
CRS	Commissioner of Railway Safety
CWE	Chief Workshop Engineer
DFC	Dedicated Freight Corridor
DLW	Diesel Locomotive Works
DMU	Diesel Multiple Unit
DR	Disaster Recovery
DRM	Divisional Railway Manager
EBR	Extra Budgetary Resources
ECOR	East Coast Railway
ECR	East Central Railway
EFT	Excess Fare Ticket
EMU	Electric Multiple Unit
EMU	Electric Multiple Unit
EOL	Engine On Load
ER	Eastern Railway
FA&CAO	Financial Advisor and Chief Accounts Officer
FC	Financial Commissioner
FOIS	Freight Operation Information System
GAD	General Arrangement Drawings
GC	Gauge Conversion

Abbreviation	Full form
GC	Gauge Conversion
GIS	Geographical Information System
GM	General Manager
GPH	General Purpose Handset
GPS	Global Positioning System
GSM-R	Global System for Mobile Communication-Railway
ICF	Integral Coach Factory
ICMS	Integrated Coaching Management System
IOH	Intermediate Overhaul
IR	Indian Railways
IRCON	Indian Railway Construction International Limited
IRPMU	Indian Railway Project Management Unit
JPO	Joint Procedure Order
L&A	Land and Amenities
LAR	Last Accepted Rate
LED	Light Emitting Diode
LOA	Letter of Acceptance
MFC	Multi-Functional Complex
MIS	Management Information System
MoR	Ministry of Railways
MoU	Memorandum of Understanding
MR	Metro Railway
MRVC	Mumbai Rail Vikas Corporation
MTRC	Mobile Train Radio Communication
NCR	North Central Railway
NEFR	Northeast Frontier Railway
NER	North Eastern Railway
NOC	No Objection Certification
NR	Northern Railway
NTES	National Train Enquiry System
NTKM	Net Tonne Kilometer
NWR	North Western Railway
OEM	Original Equipment Manufacturer
OHE	Over Head Electrical Equipment
OPH	Operation Purpose Handset
PAC	Public Accounts Committee
PCE	Principal Chief Engineer

Abbreviation	Full form
POH	Periodical Overhaul
PRS	Passenger Reservation System
PSU	Public Sector Undertaking
RDSO	Research, Design and Standards Organisation
RE	Railway Electrification
RFP	Request For Proposal
RITES	Rail India Technical and Economic Services Limited
RKM	Route Kilometers
RLDA	Rail Land Development Authority
ROB	Road Over Bridge
RUB	Road Under Bridge
S&T	Signalling and Telecommunication
SCR	South Central Railway
SM	Station Master
SR	Southern Railway
Sr. DCM	Senior Divisional Commercial Manager
Sr. DOM	Senior Divisional Operations Manager
SWR	South Western Railway
TC	Tender Committee
TDC	Target Date of Completion
TEU	Twenty Feet Equivalent Unit
TIA	Traffic Inspector of Accounts
TIELS	Terminal Incentive cum Engine on Load Scheme
TKM	Track Kilometre
TMS	Track Management System
TTE	Travelling Ticket Examiner
UTS	Unreserved Ticketing System
WCR	West Central Railway
WLC	Way Leave Charges
WR	Western Railway

Overview

The Audit Report consists of audit findings relating to compliance issues in respect of the Ministry of Railways and its various field units including Railway Public Sector Undertakings and Autonomous Bodies. The Audit Report includes two thematic audits, two long paragraphs and 32 individual Paragraphs. A brief overview of the important audit findings and conclusions is given below:

Para 2.1: Flexi fare system in Rajdhani, Shatabdi and Duronto trains

Ministry of Railways implemented the flexi-fare scheme in all Rajdhani, Duronto and Shatabdi trains in September 2016, irrespective of the demand and occupancy. The scheme resulted in decrease in occupancy in all classes except Sleeper class in Duronto trains. The occupancy increased only in a few Premier trains. Though the Railways had introduced enhanced/dynamic fare in various formats (Enhanced Tatkal fare in Premier trains, Suvidha trains and Special trains with Tatkal fare) before introducing the flexi fare scheme, they did not take into consideration the fact that the occupancy in all classes (except sleeper class in Suvidha Trains) where enhanced/dynamic fare were implemented was very low and AC 2 and AC 3 in these trains were not finding adequate patronage. In AC 3 class also, which was one of the most profitable classes, the occupancy dropped significantly after introduction of flexi fare and the vacant berths increased from 0.66 *per cent* in pre-flexi period to 4.46 *per cent* in post-flexi period. Thus, introduction of flexi fare in AC 3 Tier class was not fair.

In terms of absolute numbers, the Premier trains carried 2,40,79,899 passengers during post flexi period as compared to 2,47,36,469 passengers during pre-flexi period. There was de-growth of 2.65 *per cent* despite availability of higher number of berths/seats, which resulting in sub-optimal utilisation of national assets. Railway, however, earned ₹ 552 crore from passenger earnings from the Premier trains post flexi fare system during 9 September 2016 to 31 July 2017. Thus, there is a need for review and fine tuning in the scope of the scheme so that not only more revenue is earned but number of passengers also increase, thus, further enhancing revenue.

The occupancy of Mail/Express Trains in the routes where Premier trains run, was found to be much more than the Premier trains during the months test checked by Audit (October 2016 and February 2017). This indicated that instead of paying higher fare, passengers preferred to travel by Mail/Express trains over the Rajdhani/ Duronto/ Shatabdi trains despite a higher travel time for Mail/Express trains.

A comparison with air fare for different Advance Reservation Periods in 13 sectors also showed that air fares were cheaper than the respective train fares for a large number of routes/sectors. When compared to the cost and time taken for travel by Premier trains, air fare became a cheaper and preferable mode of travel. While in air fares the prices of tickets increase with increase in demand, in flexi fare, there is a fixed increase in fares after every 10 *per cent* of the tickets booked

irrespective of the demand. By paying a higher price for an air ticket, a passenger is ensured a confirmed seat, but a passenger who purchases a waitlisted train ticket by paying a higher amount does not have an assurance of confirmed ticket. Thus, charging a higher fare without providing confirmed seat/berth has forced passengers to explore other available alternatives.

Railway Board introduced a few measures such as reducing the Tatkal quota from 30 *per cent* to 10 *per cent*, discounted fare in AC Chair Car of two Shatabdi trains and 10 *per cent* rebate in the last fare on the vacant berths/seats after preparation of first chart during December 2016. These measures improved the occupancy of the Premier trains to some extent. This shows that rail passengers did not perceive value for their money in flexi fare system in Premier trains.

Passenger Survey by Audit showed that passengers expect better quality services commensurate with enhanced fare. At present, many of them feel that they have not derived value for money and time spent in the Premier trains and that they would prefer to switch over to other modes of transport.

It is recommended that

- ***Railways may review and fine tune the scope of the scheme so that not only more revenue is earned but number of passengers also increase, thus, further enhancing revenue. Instead of enhancing fare across all classes and routes, Indian Railways may consider reviewing the fare structure on the basis of demand and occupancy in different routes.***
- ***Railway Board may explore the possibility of rationalising the fare structure across all types of trains instead of targeting Premier trains which was already having a separate increased fare structure.***
- ***Instead of allotting 90 per cent seats/berths under flexi fare scheme and leaving only 10 per cent seats/berths for normal fare, at least 50 per cent seats/berths should be allotted for normal fare.***
- ***While paying a higher air fare, a passenger is assured a confirmed seat, whereas under flexi fare scheme, when a passenger books a waitlisted ticket at 40 to 50 per cent higher fare, he is not assured of a confirmed seat. It is recommended that for the uncertainty a waitlisted passenger undergoes, he should be compensated by way of a lower fare.***

Para 2.2: Management of commercial plots and parking spaces near stations by Commercial department in Indian Railways

While a large area of land in the railways falls under the jurisdiction of the Engineering Department, Commercial Department is responsible for managing the commercial plots and parking spaces near stations. Audit observed that there was no land management cell for commercial plots managed by Commercial Department at any level. The existing land management cell under the Engineering Department was not dealing with or having records of commercial plots. Land records were poorly maintained and not digitized. There was no

database for land under the control of Commercial Department. The mechanism of Standing Committee to examine fresh cases of licensing of commercial plots and monitoring them was not being used effectively in the selected seven Zonal Railways. The records related to licensing of land, fixation of license fee, renewal of license agreement and recovery of license fee etc. were not available with the Railways in respect of a significant number of stations to monitor timely collection of license fee from the licensees. The Station Managers did not ensure proper maintenance of records, timely realisation of rent and timely reporting of events to the divisional office in the stations test checked by Audit. License agreements were not executed and renewed timely and information about the land available under the jurisdiction of Commercial Department available with the railways was incomplete. License fee had not been revised based on market value of land.

Railway plots were being used for purposes other than the purpose for which it was allotted initially to the plot holders. Railways had not undertaken any survey to assess the present use of the plots and take action to cancel the land allotment. The plot holders were also not paying license fee in a number of cases and huge amount was outstanding in the selected Zonal Railways.

Significant number (33 *per cent*) of plots were occupied by persons other than the original allottee. Large numbers of plots were occupied unauthorisedly by persons/firms. Commercial plots were illegally transferred by original allottees to others by way of sale, donation deed, power of attorney etc. During joint inspection, permanent structures were found built on commercial plots by the allottess/unauthorized persons. These plots were being used for commercial/ private purposes. Zonal Railways neither took action to give one time opportunity for change of name of allottees nor auction the same.

As regards parking lots, railways did not execute agreements promptly in many cases and also did not enter into agreement in some places. The contractors were managing the parking lots in an un-professional manner and the railways were not able to ensure that they provide service as per the agreements and recover dues from contractors. In a number of stations, though the State police was running the pre-paid auto/taxi booths, Railway Administrations did not take suitable action/pursue the matter with the authorities concerned for collection/sharing of parking charges for running of pre-paid booths. Due to non-settlement of the court cases, the plot holders were earning revenues/enjoying benefits from the plots without paying any license fee to the Railways.

It is recommended that

- ***Railways may consider putting in place a mechanism for management of commercial plots, wherein comprehensive survey and demarcation of commercial plots, maintenance of records and data base of land records and their digitization, examination of cases of licensing and their monitoring is ensured. This may be done either by forming an exclusive Land Cell for management of commercial plots or the Land Cells which manage the plots***

under the jurisdiction of Engineering Department may be entrusted with the responsibility of managing them.

- ***Railways may strengthen the monitoring mechanism for licensing of land, fixation of license fee, renewal of license agreement and recovery of license fee, settlement of the court cases, maintenance of records etc. at Divisional and Zonal levels.***
- ***Zonal Railways may take action to get vacated and occupy the commercial plots which are not occupied by the original allottees and execute fresh agreements for recovery of license fee at rates prescribed by the Railway Board, within a fixed time frame as land is precious resource which Railway can ill-afford to use sub-optimally.***
- ***Railway may strengthen the monitoring mechanism and ensure that parking lots are managed professionally following the terms and conditions of the agreements by the contractors. Railways may also take suitable action to take up matter with the authorities concerned for collection/sharing of parking charges for pre-paid booths being managed by State police or GRP.***

Para 2.3: Loss of revenue of ₹ 13.24 crore due to carrying of freight traffic through weaker sections

When traffic is booked via routes which involve two or more of different types of routes viz. CC+4, CC+6 and CC+8, the chargeable weight will be the permissible carrying capacity of the route for which permissible carrying capacity is the most restrictive i.e. rates applicable for normal, CC+4 or CC+6 route, as the case may be. Audit observed that from Karaikal Port Private Limited siding (KIKP) to four destinations in SR, major portion of the route was upgraded and a small portion was yet to be upgraded. While lengths of these sections ranged from 133 kms to 340 kms, the portion yet to be upgraded ranged was only 15 kms to 89 kms. As a result, the freight was being charged with rate applicable to the lower load. Audit observed that SR Administration sent incomplete proposals to Railway Board by omitting part of sections, which were already fit for carrying higher loads. This led to charging of coal traffic carried on these routes at rates applicable for lower loads and led to loss of ₹ 7.81 crore during 2016-17. The loss would continue till such time the above sections are upgraded and notified for CC+8 loading. Further, food grain traffic was booked from other Zonal Railways to SR on nine sections, wherein small portion (15 kms to 188 kms) of the routes were yet to be upgraded to CC+6. By failing to take timely action to strengthen the weaker sections to CC+6 route, railways incurred a loss of ₹ 5.43 crore during 2013-14 to 2016-17.

It is recommended that these weaker sections may be upgraded so that not only higher revenue is generated, the movement of goods also becomes faster.

Para 2.4: Incorrect entry of train timing of terminating trains in Integrated Coaching Management System (ICMS) led to compromise in data integrity

Railways entered the arrival timing of terminating trains at Allahabad station incorrectly in the ICMS. This led to compromise in data integrity. As the

information fed into ICMS is reflected in National Train Enquiry System (NTES), the incorrect entries caused inconvenience to the passengers by showing wrong timings of arrival of trains in Allahabad station. Similar position i.e. incorrect data entry of arrival/ departure time of trains may also prevail at other stations.

It is recommended that Railways Board may issue strict instructions to all the Zonal Railways to ensure correct entry of the arrival/departure timings in NTES, (either through direct entry in NTES or through entry in Control Office Application or through data loggers) so that the passengers get accurate information on arrival/departure of trains. There is a need for evolving a mechanism of systemic and supervisory check of data entered in NTES with reference to the data in the Train Signalling Register/ Control Office Application/data loggers or through other means.

Para 2.5: Under-utilisation of 3rd line between Mathura and Palwal section of Agra Division

Agra Division of NCR has constructed a 3rd line between Mathura- Palwal (84 kms) for smooth operation of traffic over the section due to saturation of UP and Down Line. The line was opened for traffic two years back, after incurring an expenditure of ₹ 412.65 crore. However, the newly created 3rd line could be utilised only to the extent of 52 *per cent* despite line capacity utilisation being in excess of 100 *per cent* on both UP and Down directions, of the other two lines. Smooth operation through 3rd line required yard remodelling work at Kosi Kalan station, which was not included in the detailed estimate of the work. The non-optimal utilisation of 3rd line adversely impacted train punctuality and causes inconvenience to passengers. Though the proposal for yard remodeling work has been included in the work of 4th line sanctioned in 2015-16, the same is in very early stages and the detentions would continue till the work of yard remodelling at Kosi Kalan station is completed. Till such time, Railways will continue to lose potential revenue of ₹ 16.38 crore annually.

It is recommended that Railway may take up the work of Kosi Kalan yard remodeling on priority basis for smooth movement of traffic in this section and optimal utilisation of newly created 3rd line between Mathura-Palwal.

Para 2.6: Loss due to Non/short-realization of Way Leave Charges (WLC) from parties/firms

Way leave facilities/easement rights on Railway land involve occasional or limited use of land by a party for specified purpose like passage etc. without conferring upon the party any right of possession or occupation of the land and without any way affecting the Railway's title, possession, control and use of land. Permission for way leave should be granted in genuine and un-avoidable cases after execution of proper agreements. Thirteen railway divisions under six Zonal Railway Administrations did not comply with the guidelines laid down by the Railway Board with regard to granting of way leave facilities /easement rights. This resulted in loss due to non/short realization of way leave charges of ₹ 65.20

crore from 954 parties/firms for the period from year 1998 to March 2017. These Railway Divisions also failed to execute/ renew agreements in a number of cases with the parties/firms for allowing them to avail the way leave facilities/easement rights.

Para 2.7: Unfruitful expenditure of ₹ 62.15 crore due to procurement of microprocessor based LED destination boards

Ministry of Railways announced installation of microprocessor controlled LED destination display boards in the Budget speech 2008-09. Thereafter, Railway Board made frequent revisions in specifications for LED based destination boards. These necessitated reversal of instructions to Zonal Railways to initiate bulk purchase. However, LED destination boards which had been procured by the Zonal Railways at a cost of ₹ 98.26 crore could not be used fully due to failure of Zonal Railways to update the train data base in the Coach Control Unit and to ensure provision of remote control unit at the time of their procurement. As a result, LED destination boards worth ₹ 62.15 crore remained unutilised.

Para 2.15: Undue advantage taken by Jansadharan Ticket Booking Sewaks (JTBSs) by depositing de-monetised specified bank notes with the Railways post-demonetization

Government of India vide their Gazette Notification dated 08 November 2016, demonetized currency notes of denomination of five hundred rupees and one thousand rupees and these notes ceased to be legal tender on and from 09 November 2016. Railway Board, on 09 November 2016, clarified that the specified bank notes would not cease to be legal tender with effect from 09 November 2016 until 11 November 2016 to the extent of transactions at railway ticketing counters for purchase of tickets, for which complete records were required to be maintained. Audit observed that no specific directives/instructions were issued by the Railway Board in respect of cash deposited by the Jansadharan Ticket Booking Sewaks (JTBSs) in Railway's Deposit Accounts essential for issue/sale of unreserved tickets through computerised Unreserved Ticketing System. 132 Jansadharan Ticket Booking Sewaks in six Zonal Railways took undue advantage of the facility provided by the Government of India to allow transactions at railway ticketing counters and deposited specified bank notes with the Railways post demonetisation instead of depositing the cash in the banks.

Para 2.17: Deficiencies in remittance of cash by the Ticket booking staff and Ticket Examiners

There was accumulation of admitted debits in various divisions of Central Railway, as codal provisions for clearance of admitted debits were not implemented by Railway Administration. Staff misappropriated cash and did not remit cash in full. System of recovery of outstanding amount, in convenient monthly installments, also encouraged continuance of the practice of short remittance of cash by the staff. Non-deposit of cash collection amounts to temporary embezzlement.

Railway Administration failed to take disciplinary action against the employees who were habitual defaulters.

It is recommended that all Zonal Railway Administrations may issue Joint Procedure Order expeditiously to put in place a mechanism for streamlining the system of remittance of cash by staff and minimizing the cases of misappropriation of station earnings. Railways also need to take stringent action against defaulters which will act as a deterrence against such practices. Considering the number of ticket booking and ticket checking staff across Indian Railways, the risk of mis-appropriation and continued practice of short remittance of cash would be manifold.

Para 3.1: Undue favour to firm in awarding contracts by violating Railway Board's instructions on financial capacity and capability

For exercising better quality control and proper monitoring/supervision, Northern Railway Construction Organisation divided the work of doubling between Meerut and Muzaffarnagar into two Zones. However, they awarded both the works to the same firm by allowing the same set of documents in respect of Plant and Machinery/resources available and credentials for proof of receiving of payments in both the tenders simultaneously. Railways, thus, awarded the contracts to a firm without examining its financial capacity and capability. Railways also favoured the firm by granting extensions without penalty. The performance of the contractor was mentioned as 'satisfactory' in both the works and he was not made responsible for the delays while granting extensions. This adversely affected the progress of Doubling work between Meerut and Muzaffarnagar and resulted in non-achievement of intended benefit of increasing the line capacity for movement of freight and passenger traffic in the section.

Para 3.2: Blocking-up capital in execution of Gauge Conversion work

Railway Board undertook an exercise to study the reasons for inordinately long mega block time for Gauge Conversion Works and find means and ways to carry out the works of Gauge Conversion in about a months' block time. Based on the study Railway Board issued instructions that the works in connection with Gauge Conversion projects such as earthwork, minor bridges and certain major bridges on diversions should be started two to three years in advance and completed before the block. Railway Board viewed that it will be desirable to complete all the works in a mega block of not more than 60 days although 30 days would be ideal.

In respect of the Gauge Conversion work of Sakri-Nirmali and Jhanjharpur-Laukaha bazar section (94 km) over Samastipur Division of ECR Railway, Audit observed that out of these 28 contracts, only four were completed, 12 contracts were in progress after extensions and the remaining 12 contracts were terminated/fore-closed. An expenditure of ₹ 32.69 crore was incurred on seven of these contracts. Further, pre-mega block works in respect of Gauge Conversion project, which should be completed as per a pre-determined plan two to three

years in advance of mega block, could not be completed even after lapse of nine years from the date of sanction of detailed estimate. Contracts were fore-closed/terminated on the ground of non-availability of mega block. The firms failed to start the work even after the scheduled date of completion and action was taken by the railways to terminate/ foreclose the contract after significant delays. Poor execution and inefficient contract management on part of Railway Administration led to delay in completion of the project and blockage of capital of ₹ 47.98 crore. The overall cost of civil works in the project also increased by ₹ 551.68 crore due to price escalation.

Para 3.3: East Central Railway (ECR): Deficient planning and execution of contracts related to New Line project

In the New Line project from Hajipur to Sagauli (148.3 kms), ECR Administration took a decision to first complete the work up to Vaishali for better use of resources and decided to foreclose all the existing contracts beyond Vaishali. However, deviating from this decision, terminated contracts were re-awarded at a cost of ₹ 86.14 crore, thereby committing investment without completing the work up to Vaishali. The action defeated the purpose of decision taken to first complete the new line up to Vaishlai, optimizing use of resources.

Para 3.4: Northeast Frontier Railway: Blocking up of capital due to construction of a Road Over Bridge without ensuring encumbrance free land

Between Mathabhanga and New Coochbehar Station on State Highway No. 12A of West Bengal, a Road Over Bridge (ROB) was constructed by NEFR Administration without ensuring encumbrance free land for the approach road. Due to incomplete approach road the ROB could not be commissioned even after four years of its construction resulting in blocking up of capital of ₹ 20.03 crore.

Para 4.1: Setting up of diesel locomotive manufacturing unit at Marhowra, Bihar

Ministry of Railways proposed setting up of diesel locomotive manufacturing unit at Marhowra, Bihar in September 2006. The contract was awarded to M/s GE Global Sourcing India Pvt. Ltd in November 2015 for setting up of diesel locomotive manufacturing unit along with maintenance depot at Roza and Gandhidham. As a long time has elapsed, there was a need to reassess the necessity of setting up of new diesel locomotive manufacturing unit, before awarding the contract. Audit analysis showed that the diesel locomotives available with the Railways are sufficient in numbers to take care of the present needs. Indian Railways is planning to shift to complete electrification of its BG routes by 2021 and would also run the freight trains in dedicated freight corridors (DFCs) on electrified routes. Even if, Railways do not go for 100 *per cent* electrification, it is expected that most of the high traffic routes would definitely be electrified and the need for diesel traction would remain only for low traffic routes, for which high horse power diesel locos are not likely to be used optimally. Consequently, need for high power diesel traction in Indian Railways is going to diminish in the years to come. Indian Railways has realised this eventuality and

decided to significantly reduce the production of diesel locomotives at Diesel Locomotive Works (DLW), Varanasi from 2018-19 onwards. Also, the production plan of Diesel Loco Modernisation Works (DMW), Patiala, does not include any plan for production of diesel locomotive in 2018-19. As such, the diesel locomotives procured under this agreement would have no scope for productive utilisation in the Indian Railway network in future. Railways themselves have decided to significantly reduce in-house production of diesel locomotives at DLW, Varanasi from 2019-20 onwards. Thus, setting up of a new infrastructure for production of diesel locomotives and incurring a huge liability of ₹ 17126.08 crore is not in sync with the overall strategic vision of Railways.

It is recommended that Railways may revisit the issue and examine whether it will be prudent to create assets and infrastructure for which Railways may have no useful requirement in future, as they have planned for large scale electrification and dedicated freight corridor is also going to be completely electrified; Railways have already considerably scaled down their own in-house production programme of diesel locomotives.

Para 4.2: Utilisation of Diesel Locomotive in completely electrified section

North Central Railway administration allowed utilization of diesel locomotives in completely electrified electric sections of Allahabad-Ghaziabad (606.88 kms) and Palwal-Bina (505.31 kms). On these two electrified sections, during 2013-14 to 2016-17, a total 350 freight trains were run using diesel locomotives under electric wire. This led to extra operational cost of ₹ 5.74 crore besides negative impact on environment and increased dependency on petroleum based energy.

Para 5.1: Implementation of Mobile Train Radio Communication (MTRC) system over Indian Railways

The MTRC system has been introduced to replace the existing (Very High Frequency) VHF based communication system over IR. It aims at better traffic management over Indian Railways through data transfer (regarding location and movement of trains) and secured communication amongst drivers, guards, maintenance staff, etc. MTRC to be effective required implementation on complete routes, dedicated locomotives with cab radios for the routes, provision and maintenance of MTRC infrastructure, stakeholder identification and role assignment, skill identification and upgradation, revision of recruitment rules and change management. However, no road map for implementation of the system has been prepared by the railways. Due to absence of a comprehensive time bound road map, implementation of MTRC system could not take place. As on 31 March 2017, only on 1470 RKMs out of 19,512 RKMs planned, the MTRC project has been implemented. Wherever implemented, the system is not being utilised as complete routes have not been covered for implementation and dedicated locomotives with cab radios for the routes have not been provided. Besides, due to deficient support system in terms of maintenance contracts and faulty Mobile Service Switching Centre at Agra, the system remains unutilised. Thus,

expenditure of ₹ 181.73 crore incurred on MTRC system so far has remained unfruitful.

It is recommends that a full scale review of the MTRC projects may be taken up by the Railway Board and completed within a reasonable time frame. Till such time all fresh procurements and agreements related to MTRC may be put on hold. This may exclude agreements/tenders which are necessary to maintain the health of existing assets. A road map indicating activities, time lines, stake holder identification with role assignment may be prepared, addressing issues of change in technology, support system and skill requirement etc. India has undergone a telecom revolution in the last decade and Railway administration should consider if the requirement of secured communication envisaged through MTRC could be met through specialized telecom providers (existing in India) in place of creating an independent telecom infrastructure for MTRC within IR.

Para 5.2: Unwarranted procurement of Operational Purpose Handsets and General Purpose Handsets led to blockage of capital of ₹ 17.77 crore

North Central Railway Administration procured costly Operational Purpose Handsets (OPH) and General Purpose Handsets (GPH) equipment worth ₹ 17.77 crore without proper and realistic need analysis and hence these could not be utilised. Quotes were called from the firm without any basis and rational. The Tender Committee went out of its way to obtain documentation pertaining to the earlier tender from RDSO, to prove the eligibility of the firm for the current tender. As these handsets are not being used, the amount of ₹ 17.77 crore spent for procuring these handsets remains blocked.

Para 5.3: Avoidable liability on account of Spectrum Charges due to failure to review the use of Walkie Talkie sets

Walkie Talkie sets are used in Railways as an emergency communication tool for which Railways have to pay spectrum charges to Department of Telecommunication. Consequent to proliferation of CUG mobile phone, Railway Board directed Zonal Railways to review the use of Walkie Talkie sets. Audit observed that SER Administration did not review the use of Walkie Talkie sets to declare the unusable and non-repairable sets as condemned for avoiding payment of spectrum charges. This has led to avoidable liability of ₹ 30.36 crore towards payment of Spectrum charges. As SER Administration has not paid the spectrum charges due as yet, they would also be liable to pay ₹ 20.29 crore towards surcharge on delayed payment of spectrum charges.

Para 6.1: Receipt of wagons not due for POH in Dahod Workshop led to detention and consequent loss of earning capacity of these wagons

Only wagons due for POH should be sent to the workshops. These should be accepted, after due inspection and approval by the workshop staff. However, from June 2013 to March 2017, 434 wagons not due for POH were received in

Dahod workshop. Inspection and approval was not being carried out by workshop staff before accepting the wagons for POH. These wagons hindered operational activities as they occupied track inside the workshop and were returned back to the Zonal Railways without carrying any work on them after being detained at the workshop for long periods. This led to avoidable loss of potential earning capacity of ₹ 16.46 crore due to detention.

It is recommended that Railways may strictly follow the laid down instructions and ensure that wagons which are not due for POH are not accepted by the workshop authorities. By exercising the check of inspection and approval, the detention to wagons could be reduced and efficiency in operations can be achieved.

Para 7.1: Development of railway land for commercial use by Rail Land Development Authority

The main objective of setting up of RLDA was to generate revenue by non-tariff measures through commercial development of surplus railway land. Audit reviewed development of 17 sites, which were entrusted to RLDA in 2007 when it was constituted and observed that none of these sites have been developed so far. It was noticed that there were delays in engagement of consultants, delay in submission of reports by the consultants, delay in taking permission from State Government for change of land use, deficiencies in entrustment of land to RLDA by the concerned Zonal Railways by providing encumbered land, identifying wrong site or site with incomplete papers etc. which resulted in non-development of 17 sites of 166.996 acres, reviewed in Audit. Out of 17 cases reviewed, in only three cases developers were appointed, but commercial development did not take place. In two cases, the Development Agreements could not be entered into and Letter of Acceptance had to be cancelled as the first instalment of lease premium was not deposited by the parties and in one case the Development Agreement was terminated as the Developer refused to take the land offered by RLDA in exchange of land originally identified by the Railway and railways had to pay back the lease premium of ₹ 43.12 crore along with interest. Out of 17 plots, 13 plots were planned for commercial development with a lease potential of ₹ 282.69 crore. Since being set up, RLDA has been able to earn ₹ 67.97 crore from development of Multi-Functional Complexes (MFCs) at railway stations, which is other than the earnings from commercial development of entrusted lands. As against this, expenditure of ₹ 102.29 crore has been incurred towards establishment, consultancy charges, advertisement etc. during 2006-07 to 2016-17.

It is recommended that

- ***Railways may take timely action to seek clearance from the respective State Governments for change in land use and open space reservation and also examine the legal implications of change of land use in consultation with the State Governments.***

- ***Following the norms of local authorities, Zonal Railways may identify and entrust only unencumbered sites to RLDA and ensure complete documents/records for the same.***
- ***RLDA may ensure timely appointment of consultants. RLDA may also enforce the terms and conditions of the agreements so that they complete their work on time and take action on their reports expeditiously. RLDA needs to put in place a mechanism to ensure early finalization of development contracts by setting up reasonable time lines for each activity.***
- ***Before attempting to commercially exploit vacant land, railways may consider offering the land to the State Government/Local Bodies/other departments for public purposes, lest they become an impediment for development of land.***

Para 7.2, 7.3 and 7.4: Delay in implementation of IT projects by CRIS

Indian Railways Disaster* Recovery *Data Centre for IT Applications

Railway mooted the proposal for setting up of a Disaster Recovery Data Centre in June 2007. Ten years have passed, but the railways were yet to finalize the same. There were delays at every stage and the decision for entrustment of work of construction was yet to be taken. Though the interim disaster recovery (DR) site for Passenger Reservation System (PRS) and Unreserved Ticketing System (UTS) has been made functional, it is located in the same building as the Railway Reservation Complex.

It is recommended that Railways may set up the DRDC at a remote location on priority, so that it can mitigate the risk arising out of incidents such as serious fire, earthquake or terror attack etc.

Geographical Information System (GIS) Mapping & Geospatial Database for Indian Railway Assets

The project on 'Development of a comprehensive web based databank for land and asset management for optimum utilization of resources' was put forward in June 2012, it remains at initial stages of implementation till date. The main reasons for slow progress were delay in finalization of estimates, delay in execution of MoU, failure to adhere to MoU targets and delay in conducting GPS survey by the Zonal Railways.

It is recommended that railways may expeditiously implement the project, so as to derive the intended benefits of simplified asset management, easy visualization and management of day-to-day operations, assessing location of rolling stock on the GIS map, effective planning for traffic and easy visualization of the affected area during the time of a disaster.

Land Management System over Indian Railways

The proposal for introducing a web based Land Management System on Indian Railways was initiated in January 2011. In view of the large area of land under the

jurisdiction of the railways, the proposal was important as it envisaged conversion of land related matters i.e. land records, land boundary verification, land leasing/licensing, process of prevention and removal of encroachment, commercial exploitation of land etc. into a web based application. However, due to delay in finalization of estimates, delay in execution of MoU, failure to adhere to MoU targets and delay in conducting GPS survey by the Zonal Railways, implementation of the same was yet to be started.

It is recommended that railways may expeditiously implement the project, so that as envisaged the manual register/records can be dispensed with and the railway land plans, State Government Revenue Plan, geographical features of the railway land and adjoining areas are captured on GIS platform.

Para 8.1: Injudicious payment of Mobilization Advance to contractors

MRVC granted mobilization advance of ₹ 6.17 crore to contractors in nine contracts which had an estimated cost of less than ₹ 25 crore, which was the amount prescribed by the Railway Board for grant of mobilization advance. The rate of interest charged by MRVC was also much lower than that prescribed rates. None of the nine works could be completed within the scheduled date of completion. Besides, MRVC was unable to ensure full recovery of Mobilization Advances granted as ₹ 0.09 crore is yet to be recovered. Even the amount recovered involved significant delays.

Chapter 1
Introduction

1.1 Audited Entity profile

Indian Railways is a multi-gauge, multi-traction system with a total route length of 67,368 kms (as on 31 March 2017). Some important statistics[1] regarding route/track length in Indian Railways is given below:

Table 1.1

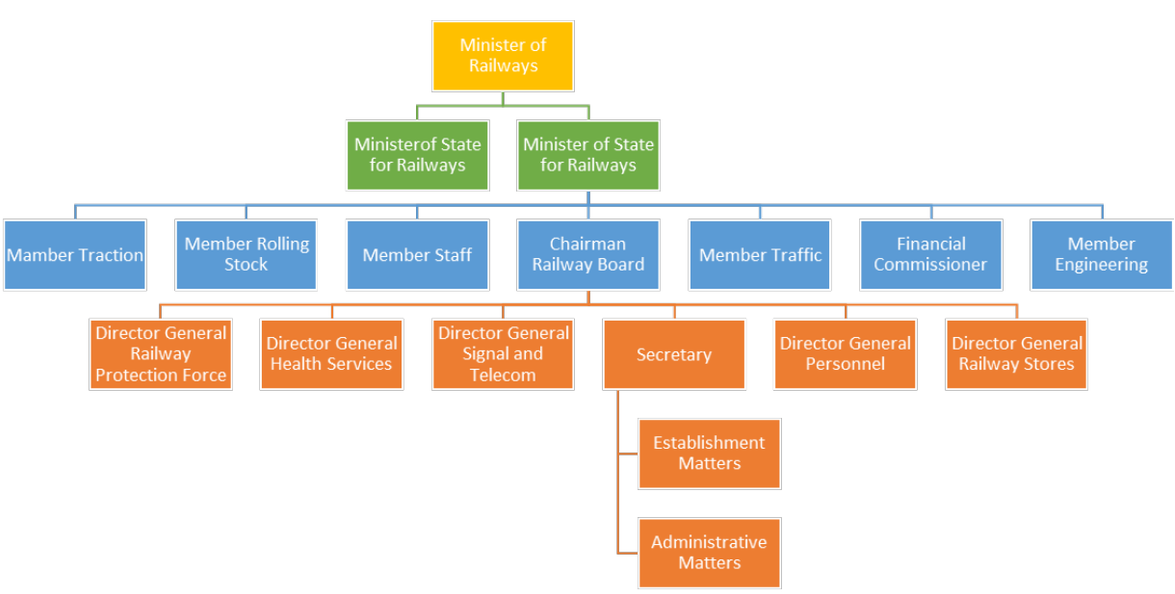
	Broad Gauge (1,676 mm)	Meter Gauge (1,000 mm)	Narrow Gauge (762/610 mm)	Total
Route Kilometers	61,680	3,479	2,209	**67,368**
Running Track Kilometers	87,962	3,731	2,209	**93,902**
Total Track kms (TKM)	1,14,912	4,099	2,396	**1,21,407**
Electrified Route kms (RKM)				**25,367**

IR runs 13,329 passenger trains and 9,221 goods trains every day. During 2016-17, it carried 22.24 million passengers and 3.04 million tonnes freight each day. As on 31 March 2017, Indian Railways had 1.31 million work force and maintained the following infrastructural assets and rolling stock:

Table 1.2

Rolling stock	Numbers
Locomotives	11,461
Coaching Vehicles	70,937
Freight Wagons	2,77,987
Stations	7,349

The Ministry of Railways, is headed by a Union Minister of Railways (a Cabinet Minister) and has two Ministers of State for Railways.



[1] Source – Indian Railways Year Book 2016-17 and Indian Railways' Website

The Railway Board which is the apex body of Indian Railways, reports to the Minister for Railways. Railway Board is headed by Chairman Railway Board (CRB) and has six members viz. Member (Traffic), Member (Engineering), Member (Traction), Member (Rolling Stock), Member (Staff) and Financial Commissioner (Railways). The Board is responsible for laying down policies on all matters of operation and maintenance of train services, acquisition, construction and maintenance of assets and monitoring implementation of policies and instructions across Zonal Railways. Railway Board is also responsible for regulating pricing of both passenger fares and freight tariffs. The Functional Directorates under each Member assist and aid in decision-making and monitoring of railway operations.

At the field level, there are 17 Zonal Railways. In addition, there are specialized organisation viz. Research, Design and Standards Organization (RDSO) Lucknow for research and standardization specific; a Central Organization for Modernization of Workshops (COFMOW) for procurement of specialized machinery; two Locomotive manufacturing units {Diesel Locomotive Works (DLW) and Chittaranjan Locomotive Works (CLW)} at Varanasi and Chittaranjan respectively; three Coach factories at Kapurthala, Rae Bareli and Perambur; two Wheel and Axle Plants at Yelahanka and Bela; and Diesel Modernization Works at Patiala.

The details of Zonal Railways with their Headquarters and total route kilometers (RKMs) as on 31 March 2017 are given below:

Table 1.3

Zonal Railways	Headquarters	RKMs
Central	Mumbai	4101.63
Eastern	Kolkata	2711.61
East Central	Hajipur	3986.06
East Coast	Bhubaneshwar	2745.45
Northern	New Delhi	7301.30
North Central	Allahabad	3523.30
North Eastern	Gorakhpur	3881.44
Northeast Frontier	Maligaon (Guwahati)	4097.91
North Western	Jaipur	5550.64
Southern	Chennai	5079.51
South Central	Secunderabad	6168.35
South Eastern	Kolkata	2712.45
South East Central	Bilaspur	2512.14
South Western	Hubli	3522.23
Western	Mumbai	6448.64
West Central	Jabalpur	2997.88
Metro Railway	Kolkata	27.28
Total		**67,367.82**

Each Zonal Railway is headed by a General Manager who is assisted by Principal Heads of Departments, of Operating, Commercial, Engineering, Electrical, Mechanical, Stores, Accounts, Signal & Telecommunication, Personnel, Safety, Medical etc. departments.

Besides the above, there are 37 PSUs and two Autonomous Bodies (RLDA and CRIS) under control of Ministry of Railways. These PSUs/ABs have been set up by the Ministry with varied and specific objectives of raising finance for its rolling stock, manufacture of wagons, executing infrastructure projects, managing containerization of rail traffic, catering and tourism, station development, utilise railway telecommunication network etc.

A fully integrated financial advice and control system exists both at Railway Board headed by the Financial Commissioner (Railways) and the Financial Advisers and Chief Accounts Officers (FA&CAOs) at the Zonal level. The Financial Heads are responsible for rendering advice and scrutinizing all proposals involving expenditure from the pubic exchequer.

1.2 Authority for audit

The authority for our audit is derived from Articles 149 and 151 of the Constitution of India and the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) (DPC) Act, 1971. Audit of expenditure and receipts of Ministry of Railways, its Public Sector Undertakings and Autonomous Bodies is conducted under Section 13, Section 16, Section 19 (1) and Section 20 (1) of the CAG's (DPC) Act respectively. Principles and methodology of compliance audit are prescribed in the 'Regulations of Audit and Accounts, 2007'.

1.3 Audit Planning

Broadly, the selection of the units for audit of the Railways is planned on the basis of a risk assessment with regard to the level of budgets planned, resources allocated and deployed, extent of compliance with internal controls, scope of delegation of powers, sensitivity and criticality of function/activity, external environment factors, etc. Previous audit findings, Public Accounts Committee (PAC)'s recommendations, media reports, where relevant, are also considered. Based on such risk assessment, test audit of 4,543 entities/units of the Railways was conducted during 2016-17.

The Audit Plan focused on selected issues of significant nature in terms of policy and its implementation *inter-alia* covering freight traffic, earnings, infrastructure development, passenger amenities, asset management, material management and safety works. Each study brings out important audit findings and conclusions followed by audit recommendations, which could help improve systems and strengthen internal control mechanism in railways.

1.4 Reporting

Audits of selected topics were conducted across the Zonal Railways reviewing relevant records and documents of the field units as well as that of Railway Board. Appropriate samples from the population were selected so as to adequately cover the issues under study. The audit findings were issued to the respective Zonal Managements for their response. Similarly, Audit Notes/Inspection Reports (IRs)/Special Letters arising out of regular audit of vouchers and tenders were

issued to the Associated Finance and Head of the unit for obtaining their replies. Audit findings were either settled or further action for compliance was advised depending upon action taken. Important audit observations, not having been complied with, were followed up through Draft Paragraphs addressed to the General Managers of Zonal Railways with copies endorsed to the FA&CAOs and Heads of the Departments for reply within the prescribed period. Selected issues raised in these Draft Paragraphs were taken up as Provisional Paragraphs with the Ministry of Railways (Railway Board) for furnishing their reply within a period of six weeks (as prescribed by the PAC) before their inclusion in the Audit Report.

1.5 Structure of the Report

The Audit Report for the year ending March 2017 comprises results of scrutiny of transactions relating to expenditure, receipts, assets and liabilities of the audited entities under the control of Ministry of Railways (Railway Board including Zonal Railways, Railway Public Sector Undertakings (PSUs) and Autonomous Bodies under the Ministry of Railways all over India). This includes an examination of the adequacy, legality, transparency, etc. of the relevant rules to maintain and operate effective control mechanism over public expenditure and safeguard against misuse, waste and loss.

The Report contains eight Chapters. Chapter 1 is introductory in nature and covers issues of cross-cutting nature. The other seven Chapters contain audit findings related to important areas of functioning and operations of Indian Railways viz., Traffic, Engineering, Traction, Signalling & Telecommunication, Rolling Stock, Autonomous Bodies and Railway Public Sector Units. The Report presents audit findings of significant materiality which are intended to aid the executive in taking corrective actions to bring about improved performance and better financial management. Detailed findings on the following four issues, over Indian Railways, are presented in this Report:

1. Flexi Fare system in Rajdhani, Shatabdi and Duronto trains
2. Management of commercial plots and parking spaces near stations by Commercial department in Indian Railways
3. Implementation of Mobile Train Radio Communication system in Indian Railways
4. Development of railway land for commercial use by Rail Land Development Authority

In addition, 33 individual paragraphs covering audit findings of respective Zonal Railways/ Public Sector Units/ Autonomous Bodies are presented in Chapters 2 to 8 of this Report.

1.6 Response of the Ministry/Department to Provisional Paragraphs

A total of 112 Draft Paragraphs were issued to the General Managers of the concerned Zonal Railways up to September 2017. 42 Provisional paragraphs were forwarded to the Chairman Railway Board, Members concerned and the Financial

Commissioner, Railway Board between 28 August 2017 and 2 February 2018. As on 28 February 2018, Railway Board's replies have been received in respect of ten Provisional Paragraphs. After considering the replies of Railway Administrations wherever received, 36 Paragraphs (which include two thematic audits and two long paragraphs) have been included in the Audit Report.

1.7 Recoveries at the instance of Audit

Audit has pointed out the cases of undercharges in realization of freight and other earnings, over payments to staff and other agencies, non-recovery of dues of the Railways etc. amounting to ₹ 229.27 crore in the various Zonal Railways during the year 2016-17. During the past six years, ₹ 688.79 crore has been recovered by the Railways at the instance of Audit, as detailed below:

Table 1.4 – Amount recovered at the instance of Audit during 2011-12 to 2016-17

Year	Amount Recovered (₹ in crore)
2011-12	138.51
2012-13	98.14
2013-14	107.70
2014-15	101.26
2015-16	80.27
2016-17	162.91
Total	**688.79**

During 2016-17, an amount of ₹ 186.47 crore was accepted for recovery by various Zonal Railways and other field units. Of this, ₹ 162.91 crore was recovered and ₹ 23.25 crore was agreed to be recovered by the railways. Seven Zonal Railways accounted for recoveries exceeding ₹ 10 crore each viz. North Central Railway (₹ 46.78 crore), Western (₹ 18.78 crore), Northeast Frontier Railway (₹ 16.64 crore), West Central Railway (₹ 12.24 crore), Northern Railway (₹ 12.24 crore), South Central Railway (₹ 12.07 crore) and South East Central Railway (₹ 11.97 crore). Out of the total amount of ₹ 186.47 crore recovery accepted, an amount of ₹ 74.31 crore pertained to transactions that were already checked by Accounts Department of concerned Railways and ₹ 106.19 crore were other than those checked by Accounts Department. As a result, of further review carried out by Accounts Department, another ₹ 5.97 crore were recovered/agreed to be recovered by the Railways.

1.8 Remedial action on Audit Paragraphs streamlining internal process

Railway Board initiated remedial action in response to audit observations issued in previous years by making appropriate changes and issue of instructions during 2016-17 for streamlining their internal process. Some of the important cases are illustrated below:

Table 1.5		
Para No./ Report No.	**Audit observations/ Recommendations**	**Action Taken by Railways**
2.3 of Report no. 24 of 2015	The procedure adopted by station authorities for dealing with the Fake Indian Currency Notes was not as per the prescribed rules/instructions. Debits were realized by cash officers over Zonal Railways for remitting FICNs. Further, FICNs were being returned to the concerned booking staff rather than to impounding them, which led to possibility of recirculation of FICNs in open market.	Railway Board instructed (September 2017) Zonal Railways to install note counting cum fake currency detecting machines at booking/PRS offices. They stated that instructions will be reiterated for strictly following the guidelines as regards handling of fake currency. Training will also be imparted for the booking staff on detection and handling of fake currency.
5.2.4 of Report no.8 of 2005	ECR Administration failed to execute agreement from collieries in the standard format and recover railway dues on account of cost of damaged wagons.	Cost of damaged wagons has been recovered and action has been taken (March 2017) to execute agreement in the standard format for smooth recovery of cost of damaged wagons.
Ch-1 of Report no.11 of 2013	For generating revenue from commercial publicity, Railways failed to conduct assessment on revenue potential, to exploit various media. Deficiencies in contract management was observed in terms of deficient record maintenance led to non-execution of agreement in respect of contracts awarded with high risk of recoverability of outstanding licence fee and unauthorized displays beyond expiry of the contract period.	In order to facilitate effective monitoring of contractual receipt and ensure timely payment and prompt renewal of contracts, a Sundry Earnings Management System is being developed. Instructions have been issued for maintaining the register with full particulars of conducting regular inspections at stations, trains in car shed/wagons depots etc. The Non Fare Revenue directorate has been formed (2016-17) in the Railway Board to realize full potential of advertising revenue.
Report no. 22 of 2017	In the this Audit Report (Electrification Projects in Indian Railways), Audit recommended that	
(a)	**Para No. 4.10** - Irregular creation of Gazetted posts for Zonal Railways and Railway Board in RE Estimates	General Manager/CORE vide letter No. CORE/G/1 dated 1 December 2017 has issued instructions that RE work charged posts will not be operated in the Zonal Railways. Zonal Railways may make suitable alternative arrangement so that they are not dependent of RE posts.
(b)	**Recommendation no.2** - All new line projects should be assessed simultaneously with and without electrified routes instead of current practice where new lines are assessed without electrification and electrification is added as a	Railway Board vide its letter No.2017/W-1/General/Policy dated 05 July 2017 has issued instructions that all the Doubling Works and New Line/Gauge Conversion sections connected to adjoining electrified sections shall be assessed with electrification. Such works shall invariably

Table 1.5

Para No./ Report No.	Audit observations/ Recommendations	Action Taken by Railways
	supplementary and subsequent activity. This way if viable, the line project can be taken up with electrification from the beginning.	be executed together with electrification through a single agency.
(c)	**Recommendation no.6 -** The projects should be prioritized on the basis of expected financial and operational benefits and project execution methodology such as engineering procurement and commissioning (EPC) or turnkey may be used as far as feasible as this would enhance accountability of the contractor, minimize coordination issues and make monitoring of the projects easier.	Railway Board vide letter No. 2016/RE/711/44 dated 30 October 2017 has directed General Manager/CORE to preferably adopt EPC (turnkey) based contacting system or large composite item rate contract in big package size for timely completion of project. In exceptional and unavoidable circumstances CORE may go for smaller item rate contract for smaller sections with personal approval of GM/CORE and prior consultation of Railway Board.
(d)	**Recommendation no.8 -** E-tendering should be implemented and various activities of tender evaluation should be done in parallel.	E-tendering has been started in CORE since March 2017. For works contracts, Railway Board vide Para Nos. 3.1 and 3.2 of letter No. 2017/Trans/01/Policy dated 8 February 2018, has decided to adopt the affidavit system of credential verification. The practice of verification of tenderers documents by the Railways will be dispensed with, making the process simpler and faster.
(e)	**Recommendation no.9 -** Large number of tenders require closer monitoring and handling of coordination issues on account of multiplicity of tenders. Therefore, a project should be executed in a way that the number of tenders are minimized.	Railway Board vide letter no. 2017/RE/161/20 Part I dated 9 October 2017, has issued directions to CORE, to form packages of 300/500/1000/1500 RKMs depending upon availability of contractors and ease of execution to get economy of scale while ensuring faster execution of projects.
(f)	**Recommendation no.10 -** Timelines for various activities in tender processing may be prescribed so as to complete tender evaluation process within a reasonable time. Last Accepted Rates (LAR) should be up dated by maintaining appropriate database.	Railway Board vide letter No. 2017/Trans/01/Policy dated 8 February 2018 has issued directions to CORE and GMs of all ZRs, fixing the validating periods of tenders as 30 days (in cases where short notice period is 21 days) and 20 days (in cases where short notice period is 14 days). Also in cases of urgency, instructions have been given to call for open tenders before sanction of Detailed Estimate with the approval of DRM/PHOD/CHOD. This will

Table 1.5

Para No./ Report No.	Audit observations/ Recommendations	Action Taken by Railways
		expedite decision making and execution of works. Further, CORE vide letter No.G-6/14 dated 17 November 2017 has prescribed timeliness of 30 days and 25 days from the Tender Opening Date for finalization of Works and Stores Tenders respectively and issue of Letter of Acceptance (LOA).
(g)	**Recommendation no.12** - General Conditions of Contract/Special Conditions of Contract terms should be practical and balanced and their strict implementation should be ensured. Conflicting Provisions in GCC for execution of binding agreement should be reconciled. Delays in execution of agreement with the contractors should be minimized and agreements should be executed within the prescribed period.	Railway Board vide Para 8.0 of letter No. 2017/Trans/01/Policy dated 8 February 2018 has decided to remove the PVC clause in all the Works Contract Tenders value less than ₹ 5 crore.
(h)	**Recommendation no.15** - The execution of the project requires significant involvement of the contractor, the implementing agency for Railway Electrification and the concerned Zonal Railways. Thus, a tripartite agreement should be considered between the three to delineate responsibilities and streamline coordination issues between the three parties.	Railway Board vide Para No. 9.0 of letter No. 2017/Trans/01/Policy dated 8 February 2018 has extended the Project Management Consultancy (PMC) services for all Works Contracts costing more than ₹ 10 crore in Open Line, Construction and RE organization subject to certain conditions laid down. Further, tripartite system is already part of EPC mode of contacting system, which will be implemented in future tenders by the railways after gaining experience.
(i)	**Recommendation no.16** - Delays in execution of works may be controlled through better project monitoring. To eliminate delays, project teams should be adequately empowered for various activities during project implementation like approval of variations, approval of layout, drawing, etc. Reasonable time limits may be prescribed for higher hierarchical formations for taking decisions.	Railway Board vide Para No. 1.0 of letter No. 2017/Trans/01/Policy dated 8 February 2018, in order to expedite decision making and execution of works, has modified the instructions on 'vitiation'. A contract shall be considered 'vitiated' only when the percentage variation in contract value between tenderers are noticed to have been exceeded by 10 per cent for Tender value less than ₹ 50 lakh and 5 per cent for Tender value equal to or more than ₹ 50 lakh. Tender Accepting Authority will be empowered to decide the quantity variations.

Table 1.5

Para No./ Report No.	Audit observations/ Recommendations	Action Taken by Railways
(j)	**Recommendation no.19** - Making available a block for any project involves foregoing of potential earning from block utilization. Therefore, Railway Board should prescribe suitable benchmark for block utilization and use it for incentivizing/penalizing the contractors.	GM/CORE vide letter no.LR/T/OHE/EPC/GR/182,184 and 185 dated 13 February 2017 has been issued prescribing format for Request For Proposal (RFP) for Engineering, Procurement and Construction (EPC) agreement. In the Schedule-O of the RFP for EPC contract, the maximum aggregate duration of Blocks for the Railway Projects is required to given. The contractor is entitled to execute the work within the specified period and if the total duration exceeds 20 per cent of the period specified in the schedule, the contractor shall pay damages at the rate of ₹10,000 per hour or part thereof for exceeded block periods. On the other hand, if the block required is not provided in accordance with the confirmed programme, the contractor shall be compensated by the providing an additional block of equal time subsequently. In the event of any default in providing such additional blocks for compensating contractor, he shall be paid damages at the rate of ₹1,000 per day for each hour.
(k)	**Recommendation no.21 -** Missing links should be identified and accorded highest priority as missing links adversely impact the utilization of electric traction on electrified routes.	The issue of missing links between two electrified territories has been taken in account while preparing Action Plan for 100 per cent electrification prepared by the railways in October 2017.
(l)	**Recommendation no.24** - The utilization of the electrified section for using electric traction is the real objective of RE projects and should be monitored by the Railway Board to ensure that diesel traction on the electrified sections is not used except for unavoidable reasons.	A Committee has been constituted by Railway Board vide letter No.ERB-1/2016/23/25 dated 19 May 2017 with respect to deployment of diesel/electric locomotives in electrified territories, in order to cut down the running of diesel locomotives under wire.

1.9 Status of Action Taken Notes

To ensure accountability of the Executive on all issues dealt with in the Report of the Comptroller and Auditor General of India, the PAC had decided (1982) that the concerned Ministries/Departments of the Government of India should furnish corrective/remedial Action Taken Note (ATNs) on all Paragraphs contained therein

and had further desired in their Ninth Report (Eleventh Lok Sabha) presented to the Parliament on 22 April 1997 that henceforth corrective/remedial ATNs, duly vetted by Audit, on all Paragraphs included in the Reports be furnished within four months after the Report is laid on the Table of the Parliament.

The position of ATNs furnished by the Railway Board (as on 28 February 2018) on the Paragraphs included in the Reports of the Comptroller and Auditor General of India-Union Government (Railways) up to the year ended 31 March 2017 is given below:

Table 1.5 – Status of Action Taken Notes of Ministry of Railways

Year	Total Paragraphs included in the Reports	No. of Paragraphs on which ATNs finalized	No. of Paragraphs on which ATNs are pending				
			ATNs not received	*ATNs on which comments sent to Railway Board*	*ATNs finally vetted but yet to be loaded in the portal*	*ATNs under verification by Audit*	*Total*
2010-11	34	33	0	1	0	0	**1**
2011-12	29	27	0	0	2	0	**2**
2012-13	30	27	0	2	1	0	**3**
2013-14	47	36	0	7	3	1	**11**
2014-15	44	32	0	11	1	0	**12**
2015-16	45	11	8	19	4	3	**34**
Total	**229**	**166**	**8**	**40**	**11**	**4**	**63**

ATNs in respect of eight Paragraphs relating to the Reports for the year 2015-16 were not received within the prescribed period of four months. 40 ATNs received for vetting by Audit were returned with observations for further action. 11 ATNs, vetted by Audit, are yet to be finalized by Ministry of Railways. In four cases, the action stated to have been taken by the railways is under verification by Audit.

Chapter 2

Traffic

The Traffic Department comprises four streams viz., Commercial, Traffic, Coaching and Catering & Tourism. The activities related to these streams are performed by the respective directorates headed by Additional Members/ Executive Director. At the Railway Board level, the Traffic Department is headed by Member Traffic.

The activities such as marketing, traffic development, improvements in quality of railway services provided to customers, regulation of passenger/ coaching/ freight tariffs, monitoring of collection, accountal and remittance of revenues from passenger/ freight traffic are managed by Commercial Directorate. The activities such as long-term and short-term planning of transportation services, management of day to day running of trains including their time table, ensuring availability of rolling stock to meet the expected demand and conditions for safe running of trains is managed by Traffic Directorate. The management of passenger and parcel services is done by Coaching Directorate and activities related to catering and tourism is managed by Catering & Tourism Directorate.

At the zonal level, the Traffic Department consists of two departments, viz., Operating and Commercial. These are headed by Chief Operations Manager (COM) and Chief Commercial Manager (CCM) respectively, who are under charge of General Manager of the concerned Zonal Railway. At the divisional level, the Operating and Commercial Departments are headed by Senior Divisional Operations Manager (Sr.DOM) and Senior Divisional Commercial Manager (Sr.DCM) respectively, who report to Divisional Railway Manager (DRM) of the concerned Division.

The total traffic operating expenses during the year 2016-17 was ₹ 24007.42 crore[2]. Total gross traffic receipt during the year was ₹ 1,65,292.20 crore[3]. During 2016-17, the annual growth rate of passenger originating improved by 0.11 *per cent*[4] over the previous year. Passenger earnings in 2016-17 increased by 4.5 *per cent*[5]. In 2016-17, freight loading increased by only 0.42 *per cent*[6]. The freight earnings however, decreased by 5.24 *per cent* as compared to the previous year.

During the year, apart from regular audit of vouchers and tenders etc., 1168 offices of the department were inspected by audit. This chapter include two reviews on Railway Board's policy on 'Flexi Fare System in Rajdhani, Shatabdi and Duronto Trains in Indian Railways' and 'Management of commercial plots and parking spaces near stations by Commercial department in Indian Railways'.

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[2] Grant no.09 – Operating Expenses – Traffic for 2016-17

[3] Includes Passenger Earnings ₹ 46,280.46 crore, Freight Earnings ₹ 1,04,338.54 crore, Other Coaching Earnings ₹ 4,312.00 crore and Sundry Earnings ₹ 10,368.04 crore

[4] As against the projected passenger originating of 8,182 million, Indian Railways carried 8,116.10 million passengers

[5] ₹ 44,283.26 crore in 2015-16 and ₹ 46,280.46 crore in 2016-17

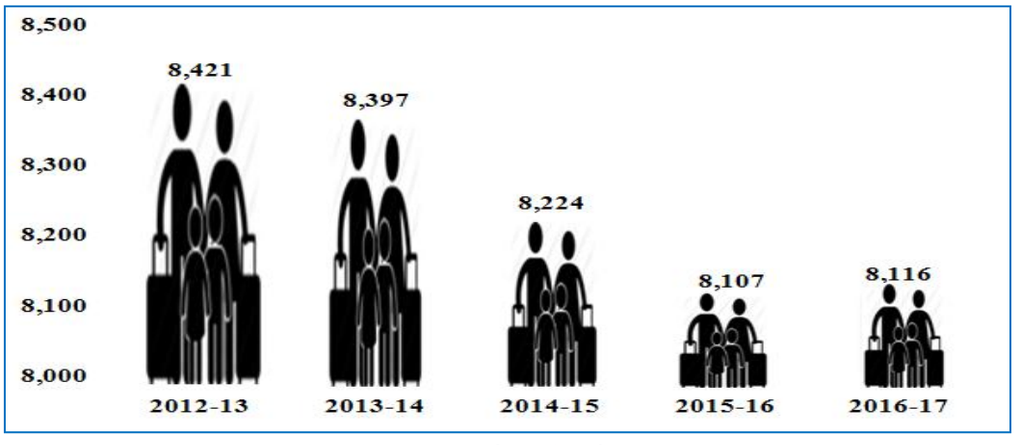
[6] 1101.51 million tonne in 2015-16 to 1106.15 million tonne in 2016-17

Fifteen Audit Paragraphs highlighting irregularities such as, loss of revenue due to carrying freight traffic through weaker sections, unfruitful expenditure on procurement of microprocessor based LED destination boards, incorrect entry of train timings in Integrated Coaching Management System (ICMS), under-utilisation of third line between Mathura and Palwal, non/short-realisation of way leave charges/engine hire charges/demurrage charges, inadmissible allowance of concession on restricted commodity etc. are also included.

2.1 Flexi fare system in Rajdhani, Shatabdi and Duronto trains

2.1.1 Introduction

Indian Railways (IR) is one of the most availed means of transportation and connectivity among the people. It consists of an extensive network covering 7,349 stations. On an average, 13,329 passenger trains per day are operated in Indian Railways. However, over the past four years, there is a declining trend in passengers carried by IR is shown in ***Graph 2.1***.



Graph 2.1: Passengers carried by Indian Railways (in millions), Source: Indian Railway Year Books

In 2015-16, the earnings from passenger traffic were ₹ 44,283.26 crore. With a view to augment passenger earnings, apart from the fare structure adopted in regular trains, Indian Railways introduced (September 2016) dynamic pricing in various trains, Special trains with Tatkal fare and flexi fare system in Premier trains.

Various schemes Introduced by Indian Railways for passenger fares

The fare for travel in regular Mail/Express and passenger trains is charged according to the tariff notified in the Indian Railway Conference Association Coaching Tariff (Part II), Passenger Fare Table. The fare for all classes were last revised in June 2014. To augment the revenue in passenger traffic, Indian Railways has adopted the following strategies during the past two and a half years:

i. ***October 2014***: A policy of charging fare on dynamic pricing was introduced with effect from October 2014, on selected trains which have high demand. As per this policy, 50 *per cent* of the existing Tatkal Quota was earmarked as Premium Tatkal Quota. This is a distance-slab based fare scheme where the fare increases by 20 *per cent* after each slab of 10 *per cent* berths are sold.

ii. ***April 2015:*** Zonal Railways were given powers to run Special Trains with special fare (Tatkal fare) structure to meet the high demand during holidays and festival seasons in popular sectors. The fare structure of these trains was on the pattern of Mail/Express trains. In addition to fare, a special charge

was levied at the rate of 10 *per cent* of basic fare for second class and 30 *per cent* of basic fare for all other classes subject to a minimum and maximum as prescribed by Railway Board (May 2015).

iii. ***July 2015***: Suvidha special trains were introduced by Railway Board with effect from July 2015 based on demand during peak seasons and on other occasions as decided by Zonal Railways. The minimum fare for this train shall be Tatkal fare and the fare would increase dynamically after booking of every 20 *per cent* of the berths/seats subject to a maximum of three times of base fare plus Tatkal charges.

iv. ***September 2016:*** Flexi fare system has been introduced in Premier trains like Rajdhani, Shatabdi and Duronto with effect from 9 September 2016. The fare under this system increases by 10 *per cent* with every 10 *per cent* of berths/seats sold subject to a maximum of 140 *per cent* for AC 3 tier class and 150 *per cent* for all classes except AC First and Executive Chair Car.

v. ***December 2016:*** Railway Board introduced a discounted fare in certain sections for travel by Shatabdi Express duly exempting them from charging under flexi fare system due to very low occupancy. During the same month, Railway Board, further introduced a rebate of 10 *per cent* on last booked fare on vacant berths/seats after preparation of first chart on an experimental basis for six months in Rajdhani/Shatabdi/ Duronto trains.

vi. ***December 2016:*** Humsafar trains with AC three tier coaches was introduced. The base fare for this class is 1.15 times of the base fare of AC 3 tier superfast Mail/Express trains, for the first passenger block of 50 *per cent*. Thereafter, there is an increase of 10 *per cent* for every 10 *per cent* increase in the passenger block for the remaining 50 *per cent* berths.

vii. ***February 2017:*** Antyodaya Express trains, a long distance superfast service with fully second class unreserved coaches were introduced. The base fare of unreserved second class is 15 *per cent* higher than the base fare of same class in Mail/Express trains.

Comments of Parliamentary Standing Committee about passenger fare

The Standing Committee on Railways in their Third Report 2014-15 (December 2014) observed that the Railways have implemented a flat 10 *per cent* increase in Passenger fares in all classes from 25 June 2014. Inclusive of 4.2 *per cent* Fuel Adjustment Component (FAC), the increase in Passenger fares was around 14.2 *per cent* for different classes of travel. Ministry of Railways stated that in order to increase passenger earnings, efforts were being made to meet the additional demand and augment revenue through various measures like introduction of new trains, enhancement of the composition of more popular trains, attachment of extra coaches in the existing trains, etc. The Committee was informed that special trains are run for clearance of extra passenger traffic during the peak seasons, festivals and special events. Further, the premium special trains are also operated on certain high-demand sectors with dynamic

pricing which is resulting in higher passenger revenues. The Committee observed that all the measures taken by the Ministry of Railways would yield desired results and passenger earnings would show an upward trend so as to ensure higher revenue generation. The Committee, however, desired that with increase in train fares, attention be also paid in augmenting/improving passenger amenities and facilities in trains and at Railway stations.

Observations of NITI Aayog regarding 'Social service obligations' by IR

The NITI Aayog (National Institution for Transforming India) released a report on reviewing the impact of social service obligations by Indian Railways in September 2016. The report highlighted the operating losses in various classes of rail travel as follows:

Table 2.1 - Category-wise contribution to Passenger Business losses (₹ in crore)
(-ve loss and +ve profit)

S. no	Particulars	2011-12	2012-13	2013-14	2014-15
A.	***Operating Loss: Mail/Express Classes (Non-Suburban Services)***				
A1	AC 1	(-) 39	(-)41	(-)47	(-)127
A2	First	(-) 39	(-)61	(-)92	(-)70
A3	AC 2	(-) 439	(-)348	(-)497	(-)496
A4	AC 3	499	495	411	882
A5	ACC	(-)13	(-)38	(-)148	(-)142
A6	Sleeper Class	(-)6532	(-)6853	(-)8408	(-)8510
A7	Second Class	(-)4238	(-)5168	(-)7134	(-)7642
A8	**Sub-total (sum of all above)**	**(-)10800**	**(-)12014**	**(-)15917**	**(-)16106**
B.	***Operating Loss: Ordinary Classes***				
B1	First	(-)48	(-)60	(-)70	(-)50
B2	Sleeper Class	(-)369	(-)403	(-)451	(-)530
B3	Second Class	(-)8476	(-)9321	(-)10584	(-)11094
B4	***Sub-total (sum of all above)***	***(-)8893***	***(-)9784***	***(-)11105***	***(-)11674***
C	Total Operating Loss (A8+B4)	(-)19693	(-)21797	(-)27022	(-)27779
D	Parcel, Luggage and Postal Services	(-)1867	(-)1863	(-)2394	(-)2453
E	Catering Services	(-)940	(-)1030	(-)952	(-)1016
F	Operating Loss - Suburban passenger services and Metro Kolkata	(-)2814	(-)3365	(-)4027	(-)4679
G	**Total Loss (for Passenger Business) (C+D+E+F)**	**(-)25314**	**(-)28056**	**(-)34395**	**(-)35928**

Source: NITI Aayog Report on 'Reviewing the impact of 'Social service obligations' by IR

Some of the key observations and recommendations of the report are as under:

- While lower tariffs and concessions substantially contribute to losses in passenger business and hence account for social service costs, they are not the only factors. In a competitive market where demand for transport is elastic, IR will have a limitation on increasing the fares (i.e. revenue side) which would be driven by competition. Hence, computation of under-

recoveries should have reference to IR's ability to charge fares in a competitive market rather than its cost structure.

- While tariff levels of SL and 2nd Class service is substantially lower than the competing services (equivalent bus fare rates), AC services are reasonably higher than the bus fares.
- Accordingly, losses in AC class could potentially be attributable to higher base cost structure of IR than to its fare structure. Similarly, for sleeper and second class services, IR over-estimates the quantum of losses that could be attributable to lower tariff levels. Analysis indicates that about 80 *per cent* of losses in these classes could be attributable to lower tariff levels while the balance 20 *per cent* are more likely attributable to IR's cost structure.

Therefore, inefficiency in IR's cost structure also significantly contributes to the losses in passenger service business and hence tariff increase cannot be the only mechanism to recover costs.

In this background, the present study was undertaken to review the flexi fare scheme with reference to passenger demand, impact on the occupancy of these trains and earnings of Indian Railways, along with a comparison with the air sector.

Audit Objective

The study was undertaken with a view to assess the change in patronage and earnings of Rajdhani/Duronto/Shatabdi trains after the introduction of flexi-fare scheme and its impact on railway passenger revenues.

Audit scope, methodology and sample

The study covered data analysis in respect of train occupancy and earnings of 142 Premier trains (44 Rajdhani, 46 Shatabdi and 52 Duronto trains) where flexi fare scheme was introduced with effect from 9 September 2016. Data in respect of berth potential, actual occupancy and earnings for the period 9 September 2015 to 31 July 2016 (referred to as pre-flexi period in the Report) and 9 September 2016 to 31 July 2017 (referred to as post-flexi period in the Report) was collected from Centre for Railway Information Systems (CRIS), New Delhi and analysed.

The change in occupancy after introduction of the scheme (9 September 2016 to 31 July 2017) has been compared with occupancy and earnings pertaining to the corresponding months of the previous year i.e. 9 September 2015 to 31 July 2016 in respect of all the Premier trains. Occupancy of Mail/Express trains running in the same route as the Premier trains was also compared for two months (October 2016 and February 2017) to assess the diversion of passenger from Premier trains to Mail/Express trains. A comparison has been made between the costs of tickets by air vis-à-vis flexi fare of AC II Tier of Premier trains for 30 to 120 day Advance Reservation period (ARP) as on 31 March 2017. Change in number of passengers travelling by air in selected 13 sectors where

Premier trains are run, was collected from the website of Director General of Civil Aviation (DGCA).

The punctuality of the Premier trains for the month of February 2017 has been checked to assess the quality of service being provided to the passengers. A passenger survey questionnaire was also administered on 806 passengers of 16 Shatabdi and 11 Rajdhani Trains during April 2017 and May 2017 to capture their views on flexi-fare and quality of services, cleanliness, food quality etc. being provided in these trains, while charging higher fares.

Annexure 2.1

Response of railway administration

Initially, the audit was undertaken analyzing data of five months period from September 2016 to February 2017 and the corresponding periods of the previous year. The Audit findings and recommendations were discussed with Railway Board during Exit Conference. Railway Board during the Exit Conference and in their reply (July 2017) stated that the audit assessment have been made for the period in which flexi fare system was not fully operational, the observation made by audit may not be acceptable, as the data have been assessed only up to February 2017. Subsequently, Audit enhanced the scope of their study and covered a period up to July 2017 for review. The revised report with enhanced scope covering the post-flexi fare period of up to July 2017 was again issued to the Railway Board on 23 November 2017. The audit findings on the revised scope have been included in the report.

Audit findings

2.1.2 Judiciousness of decision for introduction of flexi-fare scheme

The proposal to introduce flexi fare structure in Rajdhani, Duronto and Shatabdi trains was mooted (August 2016) by Railway Board in order to achieve the additional revenue generation of ₹ 5800 crore in the passenger earnings, when there was an estimated increase of one *per cent* in the originating passengers when compared to 2015-16. Rajdhani, Duronto and Shatabdi trains running in most sectors were highly popular with high average occupancy and contribute about 12 *per cent* of total Passenger Reservation System (PRS) earnings. The following proposals were considered for revenue augmentation:

- Enhanced fare structure during the peak demand period of April-June and October – December for Rajdhani, Duronto and Shatabdi trains and the existing fare structure for the remaining period.
- Enhanced fare structure in selected Rajdhani, Duronto and Shatabdi trains which have average occupancy exceeding 100 *per cent* consistently in all months.
- Enhanced fare structure in all Rajdhani, Duronto and Shatabdi trains irrespective of the demand and occupancy.

The third alternative was approved and flexi-fare system was introduced in all Rajdhani, Duronto and Shatabdi trains with effect from 9 September 2016.

Before introducing the flexi-fare system, Railways had already tried the dynamic/ enhanced fare in different formats. These are discussed below:

2.1.2.1 Enhanced fare introduced in Premier Trains

Under Tatkal scheme 30 *per cent* of the total seats/berths were allotted at enhanced fare of 30 *per cent* more than the normal fare. Class wise position under 'Tatkal Scheme' in Premier trains during the eleven months period of September 2015 to July 2016 was as follows:

Table 2.2 - Class wise vacancy position under Tatkal scheme in Premier trains before introduction of flexi-fare

Train type	Class	Tatkal Potential[7]	Vacancy	Percentage
Shatabdi	CC	18,95,493	5,13,283	**27.08**
Duronto	2A	1,53,718	35,817	**23.30**
Duronto	3A	7,36,807	1,50,461	**20.42**
Rajdhani	2A	4,08,002	57,539	**14.10**
Rajdhani	3A	13,24,494	69,295	**5.23**
Total		**45,18,514**	**8,26,395**	

Source: PRS data obtained from CRIS/New Delhi

Thus, when 30 *per cent* of the seats/berths were allocated to Tatkal under the increased fare of 30 *per cent* over the normal fare, the berths/seats remained vacant to the extent of five to 23 *per cent* in AC 2, AC 3 and CC classes of all the Rajdhani, Duronto and Shatabdi trains. Only in SL class of Duronto, the Tatkal tickets were filled up. The demand of berths/seats in all AC classes was less due to enhanced Tatkal fare.

When Railways were not able to fully utilise the 30 per cent of seats/berths under Tatkal scheme with enhanced fare of 30 per cent over the normal fare, the decision to allot 90 per cent of seats under flexi fare with enhanced fare up to 40 or 50 per cent was not judicious.

2.1.2.2 Enhanced fare introduced in other trains

Railway Board introduced (May 2015) Special trains on Tatkal fare keeping in view the demand pattern and with the approval of CCM of Zonal Railways. The fare structure of these trains was on the pattern of mail/express trains. In addition to fare, a special charge was levied at the rate of 10 *per cent* of basic fare for second class and 30 *per cent* of basic fare for all other classes subject to a minimum and maximum as prescribed by Railway Board in the *ibid* order. Railway Board further introduced Suvidha Trains from 1 July 2015 on dynamic pricing system during peak season like holiday rush and festivals as jointly decided by CCM and COM of Zonal Railway. The fare in these trains increased after every 20 *per cent* of berths/seats booked and ranged up to three times of base fare plus Tatkal fare.

[7] Tatkal potential implies the number of seats/berths available for booking under Tatkal Scheme

The occupancy in these two types of trains during the period April 2016 to August 2016 was as follows:

Table 2.3 - Occupancy trends in other trains with enhanced/dynamic fare

Class	Berth/seat Potential	Actual occupancy	Vacancy	Vacancy (%)
Class-wise occupancy in Suvidha Trains (114 trains and 1085 runs) during April 2016 to August 2016				
2A	98416	34487	63929	64.96
3A	400083	182825	217258	54.30
SL	602000	423064	178936	29.72
2S	910	872	38	4.18
Class-wise occupancy in Special Trains with Tatkal fares (121 trains and 1259 runs) during April 2016 to August 2016				
AC 1	5196	2013	3183	61.26
AC 2	69401	31504	37897	54.61
AC 3	229033	145769	83264	36.35
CC	51642	33992	17650	34.18
SL	325854	258599	67255	20.64
2S	488673	136363	352310	72.10

Source: PRS data obtained from CRIS/New Delhi

It can be seen that in all the classes in Special Trains with Tatkal fare, the percentage vacancy was very high and ranged between 21 *per cent* and 72 *per cent.* Even in the sleeper class where the occupancy normally does not reduce with increased fare, in the sleeper class in Special trains with Tatkal fare, the vacancy was 21 p*er cent.* Further, in all classes of Suvidha Trains, there was vacancy ranging between four *per cent* and 65 *per cent*.

Thus, wherever dynamic/enhanced fare was introduced, the occupancy was very low. However, this aspect was not taken into consideration while introducing the flexi fare system in all Rajdhani, Duronto and Shatabdi trains irrespective of demand and occupancy.

2.1.3 Patronage and earnings of Rajdhani/Duronto/Shatabdi trains after introduction of flexi-fare

2.1.3.1 Decreasing trend in the occupancy of Premier trains after introduction of flexi fare

In the flexi-fare system, the base fares would increase by 10 *per cent* with sale of every 10 *per cent* of berths/seats subject to a maximum of 140 *per cent* for AC 3 tier class and 150 *per cent* for all classes except AC First class and Executive Chair Car. Audit examined the trend of occupancy in Rajdhani/Shatabdi/Duronto trains before and after introduction of Flexi fare system. For this purpose, a comparison of occupancy in various classes was made for the period from 9 September 2016 to 31 July 2017 *(Post-flexi fare period)* (i.e. eleven months post introduction of flexi fare system) with the corresponding eleven months period in the earlier year (before introduction of flexi fare system) i.e. from 9 September 2015 to 31 July 2016 *(Pre-flexi fare period).* The comparison of data

for 44 Rajdhani trains, 52 Duronto and 46 Shatabdi trains (total 142 trains) was as follows:

Table 2.4 - Comparison of occupancy of Premier trains pre and post flexi-fare scheme

Class	9.9.15 to 31.7.16 (Pre-flexi period)				9.9.16 to 31.7.17 (Post-flexi period)			
	Berth/ seat potential[8]	*Actual occupancy*[9]	*Vacant berths/ seats*	*Vacancy (in per cent)*	*Berth/ seat potential*	*Actual occupancy*	*Vacant berths/ seats*	*Vacancy (in per cent)*
2A	3062608	2850824	211784	6.92	3099523	2570333	529190	17.07
3A	9987609	9922008	65601	0.66	10409950	9945700	464250	4.46
SL	1920256	2042632	(-)122376	(-)6.37	2008593	2132914	(-) 124321	(-) 6.19
CC	12411532	9921005	2490527	20.07	12696680	9430952	3265728	25.72
Total	**27382005**	**24736469**	**2767912**	**10.11**	**28214746**	**24079899**	**4259168**	**15.10**

Source: PRS data obtained from CRIS/New Delhi

As can be seen that after introduction of flexi fare, the vacant berths/seats which were 10.11 *per cent* of the total berth/seat potential during September 2015 to July 2016 increased to 15.10 *per cent* during September 2016 to July 2017. Even in terms of absolute numbers, the Premier trains carried 2,40,79,899 passengers during post-flexi period as compared to 2,47,36,469 passengers during pre-flexi period and thus registered a de-growth of 2.65 *per cent* passengers despite availability of higher number of berths/seats. This indicates that more number of passengers chose not to travel by train at significantly higher fare. Train wise analysis of the trend of occupancy pre and post implementation of flexi fare, showed that

- Out of 44 Rajdhani trains,
  - In respect of AC 2 tier, in 42 trains the overall occupancy decreased by four to 27 *per cent*. In only two trains[10], the occupancy increased by three and 14 *per cent*.
  - In respect of AC 3 tier, in 20 trains the overall occupancy decreased by five to 20 *per cent.* In 16 trains, the occupancy decrease was up to five *per cent*. In five trains, the occupancy almost remained constant. In only three trains[11], the occupancy increased by 12 to 19 *per cent*.
- Out of 52 Duronto trains,
  - In respect of AC 2 tier, in 28 trains the overall occupancy decreased by five to 25 *per cent*. In 16 trains, the decrease was up to five *per cen*t. In one train, the occupancy almost remained constant. In 7 trains, the occupancy increased by up to 16 *per cent*.
  - In respect of AC 3 tier, in 15 trains the occupancy decreased by five *per cent* to 22 *per cent*. In 21 trains, the decrease was up to five *per cent.* In

[8]Berth Potential means end to end potential berths available for bookings.
[9]Actual occupancy means number of passengers travelled end to end vis-à-vis different legs of journey
[10] 22207 (Chennai Central – Thiruvananthapuram), 22208 (Thiruvananthapuram - Chennai Central) – These trains shown as Rajdhani trains in CRIS data, but these are AC Super Express.
[11] 12436 (New Delhi-Dibrugarh), 22207 (Chennai Central – Thiruvananthapuram), 22208 (Thiruvananthapuram - Chennai Central) – The last two trains shown as Rajdhani trains in CRIS data, but these are AC Super Express.

two trains, the occupancy almost remained constant. In 14 trains, the occupancy was in increased by one to 23 *per cent*.

Annexure 2.2 a

- Out of 46 Shatabdi trains,
  - In CC, in 44 trains the occupancy decreased by one to 14 *per cent*. In the remaining two trains the occupancy almost remained constant.

Annexure 2.2 b

Thus, the occupancy in all the classes of Rajdhani, Duronto and Shatabdi trains except Sleeper class of Duronto trains showed a decreasing trend except in a few trains.

White Paper of Indian Railways (February 2015) observed that "Running of AC3 tier class is most suitable for railways and passengers and it breaks even at approximately 75 *per cent* occupancy. As it is the only coach which gives profits, trains should be augmented to run with as many AC3 tier coaches as possible". 'Summary of End Results Coaching Services Profitability/Unit Costs' published by IR also indicates that all classes of Indian Railways are operated under losses except AC 3 Tier class.

As seen from the data on occupancy of Premier trains, the occupancy in AC 3 tier has significantly dropped after introduction of flexi fare. The vacant berths increased from 0.66 *per cent* in pre-flexi period to 4.46 *per cent* in post-flexi period.

Thus, the introduction of flexi fare in AC 3 tier class which was already a profit making class was not fair.

2.1.3.2 Impact on earnings

A review of data regarding earnings of Premier trains before and after introduction of flexi fare scheme was done. It was seen that while the occupancy in all classes of travel reduced post flexi fare scheme except in Sleeper class, there was an increase in total earnings from 142 Premier trains, where flexi fare scheme was introduced.

The table below compares increase in earnings vis-a-vis berth potential and the earnings per berth in different classes of Rajdhani, Duronto and Shatabdi trains:

Table 2.5 - Berth potential and earnings of Premier trains

Class	Pre-flexi period		Post-flexi period		Increase in earnings	Percentage increase in earnings	Decrease in number of passengers	Percentage decrease in passengers carried
	Earnings (₹ in crore)	Number of passengers carried	Earnings (₹ in crore)	Number of passengers carried	(₹ in crore)			
Rajdhani								
AC 2	540.04	2137294	572.18	1877026	32.14	5.95	-260268	-12.18
AC 3	1306.39	6740208	1573.19	6823371	266.8	20.42	83163	1.23
Duronto								
AC 2	157.25	713530	183.29	693307	26	16.54	-20223	-2.83
AC 3	522.7	3181800	603.43	3122329	80.73	15.45	-59471	-1.87
SL	148.18	2042632	185.73	2132914	37.55	25.34	90282	4.42

Table 2.5 - Berth potential and earnings of Premier trains								
Class	Pre-flexi period		Post-flexi period		Increase in earnings	Percentage increase in earnings	Decrease in number of passengers	Percentage decrease in passengers carried
	Earnings (₹ in crore)	Number of passengers carried	Earnings (₹ in crore)	Number of passengers carried	(₹ in crore)			
Shatabdi								
CC	718.87	9921005	828.06	9430952	109.19	15.19	-490053	-4.94
Total	**3393.43**	**24736469**	**3945.85**	**24079899**	**552.42**	**16.28**	**-656570**	**-2.65**

Source: PRS data obtained from CRIS/NDLS

Thus, there was an increase in the total earnings from the Premier trains post flexi fare period by ₹ 552 crore. However, the actual number of passengers carried by the Premier trains post flexi-fare, decreased significantly by 6.57 lakh passengers during the period September 2016 to July 2017 (2.65 *per cent*).

Railway Board in its reply (February 2018) stated that the actual earnings are increasing in comparison to the same period of previous years.

Audit agrees that the passenger earnings have increased, however, the railways carried 6.75 lakh less passengers in Premier trains during 9 September 2016 to 31 July 2017 despite a three per cent increase in berth potential as compared to the previous year period of 9 September 2015 to 31 July 2016.

2.1.3.3 Impact of flexi fare on occupancy in Mail/Express trains running on the same route of Premier Trains

Apart from Premier trains being run on various routes, Mail/Express trains are also running on the same routes. Audit examined the occupancy in the Mail/Express trains on the routes where Premier trains were being run. Data in respect of two months viz., October 2016[12] and February 2017[13] was collected and a comparison was made between occupancy of Rajdhani/Duronto/Shatabdi trains (with less than 75 *per cent* occupancy) with that of Mail/Express trains running on the same routes. The data is given below:

Table 2.6 - Comparison of occupancy of Premier trains with Mail/Express trains						
Month	Train No./Name	Class	Occupancy (per cent)	Train type (Mail/ Express/ Superfast)	Train No./Name	Occupancy (per cent)
	Premier Trains			*Mail/Expres Trains*		
	Premier Train - Rajdhani					
Oct-16	22694 Nizamuddin- Bengaluru	2A	64	SF	12650 Nizamuddin- Yesvantpur	108
Oct-16	12235 Dibrugarh- New Delhi	2A	45	EXP	14055 Dibrugarh - Delhi	99
Oct-16	12437 Secunderabad – Nizamuddin	2A	65	SF	12721 Hyderabad – Nizamuddin	145
Oct-16	12441 Bilaspur – New Delhi	2A	48	SF	12409 Raigarh – Nizamuddin	128
Oct-16	12453 Ranchi – New Delhi	2A	53	SF	12825 Ranchi – New Delhi	89

[12] One of the months of peak season
[13] One of the months of lean season

Table 2.6 - Comparison of occupancy of Premier trains with Mail/Express trains						
Month	Train No./Name	Class	Occupancy (per cent)	Train type (Mail/ Express/ Superfast)	Train No./Name	Occupancy (per cent)
	Premier Trains				*Mail/Expres Trains*	
Oct-16	12433 Chennai – Nizamuddin	2A	73	SF	12621 Chennai – New Delhi	103
Feb-17	22694 Nizamuddin- Bengaluru	2A	64	SF	12650 Nizamuddin- Yesvantpur	125
Feb-17	12235 Dibrugarh- New Delhi	2A	22	EXP	14055 Dibrugarh - Delhi	77
Feb-17	12437 Secunderabad – Nizamuddin	2A	43	SF	12721 Hyderabad – Nizamuddin	155
Feb-17	12441 Bilaspur – New Delhi	2A	49	SF	12409 Raigarh – Nizamuddin	112
Feb-17	12453 Ranchi – New Delhi	2A	36	SF	12825 Ranchi – New Delhi	77
Feb-17	12433 Chennai – Nizamuddin	2A	55	SF	12621 Chennai – New Delhi	114
Feb-17	12235 Dibrugarh- New Delhi	3A	70	EXP	14055 Dibrugarh - Delhi	97
Feb-17	12437 Secunderabad – Nizamuddin	3A	70	SF	12721 Hyderabad – Nizamuddin	185
Feb-17	12453 Ranchi – New Delhi	3A	74	SF	12825 Ranchi – New Delhi	132
	Premier Trains - Duronto					
Oct-16	22201 Sealdah – Puri	2A	64	SF	12837 Howrah - Puri	98
Oct-16	22210 New Delhi – Mumbai central	2A	52	SF	12908 Nizamuddin – Bandra Terminus	85
Oct-16	12294 Allahabad – Lokmanya Tilak Terminus	2A	52	SF	22130 Allahabad – Lokmanya Tilak Terminus	70
Oct-16	12240 Jaipur – Mumbai central	2A	28	SF	12956 Jaipur – Mumbai central	90
Oct-16	22204 Secunderabad – Vishakapatnam	2A	74	SF	12728 Hyderabad – Vishakapatnam	106
Oct-16	12213 Yesvantpur – Delhi Sarai Rohilla	2A	72	SF	12649 Yesvantpur -Nizamuddin	124
Oct-16	12228 Indore – Mumbai central	2A	53	SF	12962 Indore – Mumbai central	87
Feb-17	22210 New Delhi – Mumbai central	2A	63	SF	12908 Nizamuddin – Bandra Terminus	74
Feb-17	12294 Allahabad – Lokmanya Tilak Terminus	2A	72	SF	22130 Allahabad – Lokmanya Tilak Terminus	98
Feb-17	12240 Jaipur – Mumbai central	2A	47	SF	12956 Jaipur – Mumbai central	122
Feb-17	22204 Secunderabad – Vishakapatnam	2A	62	SF	12728 Hyderabad – Vishakapatnam	109

Table 2.6 - Comparison of occupancy of Premier trains with Mail/Express trains						
Month	Train No./Name	Class	Occupancy (per cent)	Train type (Mail/ Express/ Superfast)	Train No./Name	Occupancy (per cent)
Premier Trains				*Mail/Expres Trains*		
Feb-17	12269 Chennai – Nizamuddin	2A	62	SF	12615 Chennai - Delhi Sarai Rohilla	121
Feb-17	12213 Yesvantpur – Delhi Sarai Rohilla	2A	44	SF	12649 Yesvantpur -Nizamuddin	149
Feb-17	22201 Sealdah – Puri	2A	51	SF	12837 Howrah - Puri	101
Oct-16	12294 Allahabad – Lokmanya Tilak Terminus	3A	68	SF	22130 Allahabad – Lokmanya Tilak Terminus	72
Oct-16	12240 Jaipur – Mumbai central	3A	37	SF	12956 Jaipur – Mumbai central	91
Oct-16	12228 Indore – Mumbai central	3A	36	SF	12962 Indore – Mumbai central	83
Feb-17	12240 Jaipur – Mumbai central	3A	65	SF	12956 Jaipur – Mumbai central	113
Feb-17	22204 Secunderabad – Vishakapatnam	3A	69	SF	12728 Hyderabad – Vishakapatnam	111
Feb-17	12213 Yesvantpur – Delhi Sarai Rohilla	3A	59	SF	12649 Yesvantpur -Nizamuddin	141
Feb-17	12228 Indore – Mumbai central	3A	69	SF	12962 Indore – Mumbai central	107
Premier Trains - Shatabdi						
Oct-16	12035 Jaipur – Agra Fort	CC	56	SF	12196 Ajmer – Agra Fort	96
Oct-16	12026 Secunderabad – Pune	CC	63	EXP	17014 Hyderabad - Pune	103
Oct-16	12277 Howrah – Puri	CC	66	SF	12821 Howrah – Puri	108
Oct-16	12243 Chennai – Coimbatore	CC	67	SF	12679 Chennai - Coimbatore	104
Feb-17	12005 New Delhi – Kalka	CC	72	EXP	14095 Delhi Sarai Rohilla - Kalka	79
Feb-17	12035 Jaipur – Agra Fort	CC	54	SF	12196 Ajmer – Agra Fort	87
Feb-17	12026 Secunderabad – Pune	CC	68	EXP	17014 Hyderabad - Pune	122
Feb-17	12277 Howrah – Puri	CC	30	SF	12821 Howrah – Puri	107
Feb-17	12243 Chennai – Coimbatore	CC	61	SF	12679 Chennai - Coimbatore	105
Feb-17	12278 Puri – Howrah	CC	44	SF	12822 Puri - Howrah	111
Feb-17	12039 Kathgodam – New Delhi	CC	69	EXP	15014 Kathgodam – Delhi	99

Source: Data warehouse of Indian Railways

For the months test checked, it was observed that

- The occupancy of AC 2 and AC 3 tier class of Mail/Express trains on the same routes as Rajdhani trains was significantly higher than the occupancy of corresponding classes of Rajdhani trains and was more than 100 *per cent* in

10 trains. In five Mail/Express trains, where the occupancy was 77 *per cent* to 99 *per cent,* the corresponding occupancy of Rajdhani trains was 22 *per cent* to 70*per cent*.

- The occupancy of AC 2 and AC 3 tier class of Mail/Express trains on the same routes as Duronto trains was significantly higher than the occupancy of corresponding classes of Duronto trains and was more than 100 *per cent* in 11 trains. In 10 Mail/Express trains, where the occupancy was 72 *per cent* to 98 *per cent,* the corresponding occupancy of Duronto trains was 28 *per cent* to 72 *per cent*.
- The occupancy of CC class of Mail/Express trains on the same routes as Shatabdi trains was significantly higher than the occupancy of corresponding classes of Shatabdi trains and ranged from 79*per cent* to 122 *per cent,* whereas the occupancy in Shatabdi train ranged between 30 *per cent* and 69 *per cent.* Only on New Delhi – Kalka route, the occupancy of both types of trains were in the similar range (72 *per cent* and 79 *per cent* for Mail/Express and Shatabdi trains respectively*)*.

The above indicates that after the introduction of the flexi fare system, passengers preferred to travel by Mail/Express trains over the Rajdhani/ Duronto/ Shatabdi trains despite a higher travel time for Mail/Express trains.

Railway Board in their reply stated (July 2017) stated that the occupancy of Premier trains depends upon the peak and lean seasons. The occupancy of Premier trains in lean season always remained low in comparison to the Mail/Express trains.

However, Audit analysis of occupancy of Premier trains vis-à-vis Mail/Express trains included both peak season (October 2016) and lean season (February 2017). The trend indicated that the vacant berths were increasing.

2.1.3.4 Impact on passengers' patronage of Premier trains post flexi fare scheme

The system of flexi fare adopted by airlines is aimed to take care of yield management[14]. The pricing is linked to the occupancies and the time at which the ticket is being booked. As the occupancies shrink, fares go up so that maximum yield per seat can be obtained.

Audit examined the flexi fare scheme in Rajdhani/Duronto/Shatabdi trains in light of the concept of yield management. Audit selected the following 13 sectors of Premier trains, on which there are regular flights.

Table 2.7 - Sectors adopted for comparison of air-fare with train fare

S. no	Sector
1	Chennai – New Delhi – Chennai
2	Trivandrum – New Delhi – Trivandrum
3	Hyderabad – New Delhi – Hyderabad

[14] Yield management is a variable pricing strategy, based on understanding, anticipating and influencing consumer behavior in order to maximize revenue or profits from a fixed, time-limited resource (such as airline seats or hotel room reservations or advertising inventory).

Table 2.7 - Sectors adopted for comparison of air-fare with train fare	
S. no	**Sector**
4	Kolkata – New Delhi – Kolkata
5	Guwahati – New Delhi – Guwahati
6	Bengaluru – New Delhi – Bengaluru
7	Mumbai – New Delhi – Mumbai
8	Ranchi – New Delhi – Ranchi
9	Ahmedabad – New Delhi – Ahmedabad
10	Bhubaneswar – New Delhi – Bhubaneswar
11	Goa – New Delhi – Goa
12	Mumbai – Kolkata – Mumbai
13	Bengaluru – Kolkata – Bengaluru

All inclusive fare of AC 2 tier of Rajdhani and Duronto trains in the identified 13 sectors were compared with all inclusive air fare (economy class of Air India as well as one private airlines) as on 31 March 2017 for journey on 30 April 2017 (30 day of ARP[15]), 30 May 2017 (60 day of ARP), 29 June 2017 (90 day of ARP) and 29 July 2017 (120th day of ARP). Audit findings are given below:

Table 2.8 - Statement showing the cheapest mode of transport					
S. no	**Name of the Sector**	**Cheapest mode (Air/Rail)**			
		120 days ARP	***90 days ARP***	***60 days ARP***	***30 days ARP***
1	Chennai – New Delhi	Rail	Air	Air	Air
	New Delhi – Chennai	Air	Air	Air	Air
2	Trivandrum – New Delhi	Rail	Air	Air	Air
	New Delhi – Trivandrum	Rail	Air	Air	Air
3	Hyderabad – New Delhi	Air	Air	Air	Air
	New Delhi – Hyderabad	Air	Air	Air	Air
4	Kolkata – New Delhi	Air	Air	Rail	Rail
	New Delhi – Kolkata	Rail	Air	Rail	Air
5	Guwahati – New Delhi	Rail	Air	Air	Rail
	New Delhi – Guwahati	Rail	Air	Air	Air
6	Bengaluru – New Delhi	Air	Air	Air	Air
	New Delhi – Bengaluru	Air	Air	Air	Air
7	Mumbai – New Delhi	Air	Air	Air	Rail
	New Delhi – Mumbai	Air	Air	Rail	Air
8	Ranchi – New Delhi	Air	Rail	Air	Rail
	New Delhi – Ranchi	Air	Rail	Air	Air
9	Ahmedabad – New Delhi	Rail	Rail	Rail	Rail
	New Delhi – Ahmedabad	Air	Rail	Rail	Air
10	Bhubaneswar – New Delhi	Air	Air	Air	Air
	New Delhi – Bhubaneswar	Air	Air	Air	Air
11	Goa – New Delhi	Air	Rail	Rail	Rail
	New Delhi – Goa	Air	Rail	Rail	Rail
12	Mumbai – Kolkata	Rail	Rail	Air	Rail
	Kolkata – Mumbai	Rail	Rail	Air	Air
13	Bengaluru – Kolkata	Air	Air	Air	Air
	Kolkata – Bengaluru	Air	Air	Air	Rail

Source: Web site of Airlines and IRCTC

[15] Advance Reservation Period

It was observed that, of the 26 directions (up/down of the 13 sectors),

- for 120 days ARP, travel by air was found to be the cheapest mode in 17 directions of travel.In the remaining 9 directions, though the air fare was higher, the difference in fare was only up to ₹ 600.
- for 90 days ARP, travel by air was found to be the cheapest mode in 18 directions of travel.
- for 60 days ARP, travel by air was found to be the cheapest mode in 19 directions of travel.
- for 30 days ARP, travel by air was found to be the cheapest mode in 17 directions of travel.
- In Hyderabad-New Delhi, New Delhi- Hyderabad, Bengaluru -New Delhi, New Delhi- Bengaluru, Bhubaneshwar-New Delhi, New Delhi- Bhubaneshwar, New Delhi-Chennai and Bengaluru-Kolkata sectors, the air fare was cheaper when tickets were booked 30 days to 120 days in advance.
- In Chennai-New Delhi, Trivandrum-New Delhi, New Delhi-Trivandrum, New Delhi-Guwahati sectors, the air fare was cheaper when tickets were booked 30 days to 90 days in advance.
- In Mumbai-New Delhi and Kolkata-Bengaluru sectors, the air fare was cheaper when tickets were booked 60 days to 120 days in advance.
- In New Delhi-Mumbai sector, the air fare was cheaper when tickets were booked 90 days to 120 days in advance.

Thus, in a large number of sectors and for most of the ARPs, air fare was found to be cheaper.

The trend of occupancy in airlines and AC 2 and AC 3 tier of premium trains during pre-flexi period and post flexi period was as follows:

Table 2.9 - Comparison of increase/decrease in number of passengers in selected sectors – Rail and Air

Sector	Total for AC 2 and AC 3 (Sep 15 to Jul 16)	Total for AC 2 and AC 3 (Sep 16 to Jul 17)	Increase (+) / Decrease (-) (Nos.)	Increase (+) / Decrease (-) (in per cent)	No. of passengers by air (Sep 15 to Jul 16)	No. of passengers by air (Sep 16 to Jul 17)	Increase (+) / Decrease (-) (Nos.)	Increase (+) / Decrease (-) (in per cent)
A	B	C	D	E	F	G	H	I
New Delhi - Chennai	115259	112738	-2521	-2	980416	1061148	80732	8
Chennai - New Delhi	106928	108932	2004	2	980429	1063482	83053	8
New Delhi – Thiruvananthapuram	150344	129279	-21065	-14	115705	168415	52710	46
Thiruvananthapuram - New Delhi	164910	147964	-16946	-10	108411	185678	77267	71
New Delhi – Hyderabad	74205	72140	-2065	-3	985054	1088112	103058	10
Hyderabad - New Delhi	73554	71947	-1607	-2	985249	1067219	81970	8
New Delhi – Kolkata	942382	910978	-31404	-3	1072148	1400462	328314	31
Kolkata - New Delhi	945083	924067	-21016	-2	993328	1319021	325693	33
New Delhi – Guwahati	737549	728833	-8716	-1	442398	603508	161110	36

Table 2.9 - Comparison of increase/decrease in number of passengers in selected sectors – Rail and Air

Sector	Total for AC 2 and AC 3 (Sep 15 to Jul 16)	Total for AC 2 and AC 3 (Sep 16 to Jul 17)	Increase (+) / Decrease (-) (Nos.)	Increase (+) / Decrease (-) (in per cent)	No. of passengers by air (Sep 15 to Jul 16)	No. of passengers by air (Sep 16 to Jul 17)	Increase (+) / Decrease (-) (Nos.)	Increase (+) / Decrease (-) (in per cent)
A	B	C	D	E	F	G	H	I
Guwahati - New Delhi	707105	701483	-5622	-1	424356	613601	189245	45
New Delhi – Bengaluru	357893	373458	15565	4	1680897	1846712	165815	10
Bengaluru- New Delhi	429965	409285	-20680	-5	1680454	1861949	181495	11
New Delhi – Mumbai	787629	787787	158	0	2905364	3174442	269078	9
Mumbai - New Delhi	856495	838966	-17529	-2	2880430	3140280	259850	9
New Delhi – Ranchi	169808	161986	-7822	-5	205662	375389	169727	83
Ranchi - New Delhi	168931	154174	-14757	-9	188793	341308	152515	81
New Delhi – Ahmedabad	342727	342971	244	0	724335	878513	154178	21
Ahmedabad - New Delhi	333572	326539	-7033	-2	727164	866251	139087	19
New Delhi – Bhubaneswar	314140	282744	-31396	-10	331881	433720	101839	31
Bhubaneswar - New Delhi	309694	272739	-36955	-12	320542	419269	98727	31
New Delhi – Goa*	48219	43241	-4978	-10	468738	606639	137901	29
Goa - New Delhi*	67158	67028	-130	0	489545	609543	119998	25
Mumbai – Kolkata	171371	160694	-10677	-6	757088	811876	54788	7
Kolkata – Mumbai	164970	163883	-1087	-1	718891	789635	70744	10
Bengaluru– Kolkata	79178	87618	8440	11	542487	721322	178835	33
Kolkata – Bengaluru	78365	85187	6822	9	515163	699241	184078	36

Source: PRS data obtained from CRIS

**Since the Train No. 22413/22414 (New Delhi – Madgaon Rajdhani) was introduced from November 2015, the comparison of passengers carried by rail/air was adopted from December to July only*

It can be seen that

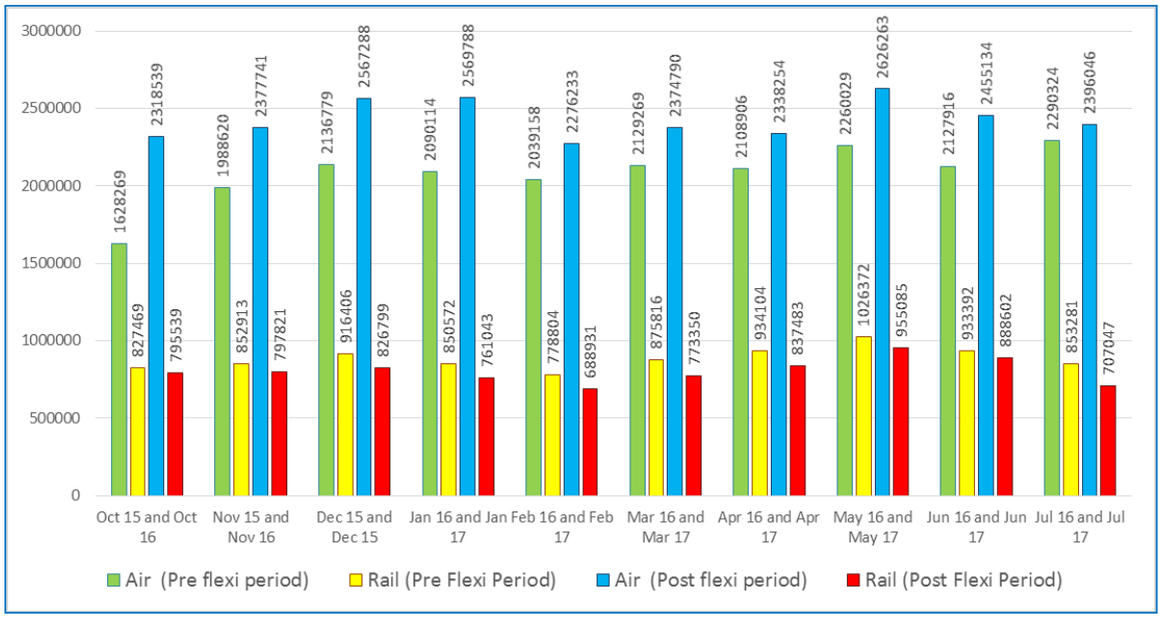
- The number of passengers carried by the airlines has increased in all the 26 directions (up/down of the 13 sectors), whereas occupancy in Rajdhani/Duronto trains, it increased only in four directions viz. Chennai – New Delhi, New Delhi – Bengaluru, Bengaluru – Kolkata, Kolkata – Bengaluru where the increase was 2, 4, 11, 9 *per cent* respectively.
- In three directions viz. New Delhi – Mumbai, New Delhi – Ahmedabad, Goa – New Delhi the passengers carried was almost constant.
- In 19 directions, the decrease in passengers was in the range of one to 14 *per cent*.

Annexure 2.3

This indicates that when compared to the cost and time taken for travel by AC 2 and AC 3 tier, air travel by economy class worked out to be cheaper and preferable mode of travel. This is corroborated by decreasing trend of occupancy in Premier trains post flexi fare scheme, while the number of the

passenger carried by airlines increased during the same period of post-flexi as compared to pre-flexi.

Audit compared the number of passengers travelled by air with the number of passengers travelled by premier trains (AC 2 and AC3 tier) during the pre and post flexi period in the 13 selected sectors. The result can be seen in ***Graph 2.2***:



Graph 2.2: Comparison of passanegsr travelled by air and rail during Pre-flexi period (October 2015 to July 2016) and Post-flexi period (October 2016 to July 2017)

From the above graph, it can be seen that on one hand number of train passengers of AC 2 and AC 3 tier class of premier trains showed decreasing trend in post flexi period in comparison to pre flexi period, on the other hand air passengers have shown increasing trend over the same period. This indicates that the decrease in occupancy in Premier trains did lead to passengers shifting to air for travel in these sectors.

Railway Board in their reply stated (July 2017) stated that for shorter ARP, flights charged much more fare than that of Premier trains. However, audit study compared the fare in 26 directions for four ARP periods–30 days, 60 days, 90 days and 120 days and noticed that, travel by air was cheaper in 17, 19, 18 and 17 directions respectively. Railway Board further stated (February 2018) that while air fares are dynamic with surge pricing, in flexi-fare variation is fixed throughout the year and there is no surge pricing. Overall there is an increase in occupancy of reserved passengers (all trains including Rajdhani, Shatabdi and Duronto trains) and passengers have not shifted to other modes of transport.

Audit review has shown that passengers of Rajdhani, Shatabdi and Duronto trains have shifted to either the Mail/Express trains on the same routes or shifted to air.

2.1.4 Impact of measures taken by railways to utilise the vacant seats

The Tatkal quota in the Premier trains continued to be operated as per existing guidelines after the flexi fare scheme was introduced and the berths assigned under the Tatkal quota were to be booked at the rate of 1.5 times of the base fare for all classes viz. SL, 2A, 3A and CC except AC 1 and EC. Subsequently, Railway Board revised (December 2016) the instructions and with effect from 20 December 2016, reduced the Tatkal quota from 30 *per cent* to 10 *per cent* of total class wise accommodation.

As the occupancy during lean seasons reduced significantly, Railway Board further decided (14 December 2016) to allow discounted fare in some section of Shatabdi trains and a rebate of 10 *per cent* after preparation of first chart in all Premier trains. The impact of these measures is discussed below:

2.1.4.1 Decision of reducing Tatkal quota in flexi fare trains

Audit analysed the tickets earmarked under Tatkal quota in all 142 Premier trains and its utilisation during 20 October 2016 to 19 December 2016 and compared with the Tatkal utilisation during 20 December 2016 to 19 February 2017 i.e. during the period of two months before and after the decision of reducing the Tatkal quota. Audit analysis is given below:

Table 2.10 -Train type wise Tatkal summary of all Rajdhani/Duronto/Shatabdi trains

Train type	Class	*20-10-2016 to 19-12-2016*				*20-12-2016 to 19-02-2017*			
		Berth potential	Actual passengers	Vacant berths	Vacancy (in per cent)	Berth potential	Actual passengers	Vacant berths	Vacancy (in per cent)
Rajdhani	2A	92489	51995	40494	43.78	43723	31457	12266	28.05
	3A	299985	216838	83147	27.72	139128	119576	19552	14.05
Duronto	2A	33231	21837	11394	34.29	18875	13285	5590	29.62
	3A	153992	109560	44432	28.85	84083	64211	19872	23.63
	SL	98392	95580	2812	2.86	57808	61917	-4109	-7.11
Shatabdi	CC	412842	242150	170692	41.35	223419	130168	93251	41.74
Total		**1090931**	**737960**	**352971**	**32.36**	**567036**	**420614**	**150531***	**29.56***

** Except sleeper class*

It can be seen that after the decision to reduce the Tatkal quota in Premier trains was taken with effect from 20 December 2016, the percentage of vacant berths/seats improved significantly in all the classes.

Thus, the decision to reduce the Tatkal quota from 30 per cent to 10 per cent in Premier trains led to better utilization of Tatkal berths/seats.

2.1.4.2 Discount in some sections of Shatabdi trains

In order to improve the patronage, Railway Board introduced discounted fare in AC Chair Car of Shatabdi trains running over Mysuru – Bengaluru and Ajmer-Jaipur sections from 20 December 2016 on trial basis for six months. For these sections, the flexi fare system was not applicable and Tatkal charges were not levied on the discounted fare.

- In New Delhi – Ajmer Shatabdi Express (Train No.12015/12016), the discounted fare was proposed between Jaipur and Ajmer and between Jaipur and Kishangarh in both up and down directions. The discounted fare was subsequently withdrawn with effect from December 2017.
- In Chennai Central – Mysuru Shatabdi Express (Train No.12007/12008) the discounted fare was proposed between Bengaluru City and Mysuru in both up and down directions.

A comparison of the occupancy and earnings during January 2017 and February 2017 with that of October 2016 and November 2016 i.e. two months before and after the month in which the discounted fare was implemented can be seen in the table below:

Table 2.11 - Impact on occupancy and earnings

Period	Passengers (Nos.)	Earnings (in ₹)	Passengers (Nos.)	Earnings (in ₹)
	Between Bengaluru City and Mysore		*Between Mysore and Bengaluru City*	
Oct-Nov 2016	9,129	40,18,435	11,809	48,24,945
Jan-Feb 2017	10,361	30,38,468	13,504	38,14,879
Increase/Decrease	1,232	(-) 9,79,967	1,695	(-) 10,10,066
(in per cent)	13	(-) 24	14	(-) 21

Source: PRS Data obtained from CRIS/NDLS

The above analysis revealed that in Bengaluru City–Mysuru direction, there was an increase of 13 *per cent* in occupancy and in Mysuru– Bengaluru City direction, there was an increase of 14 *per cent* in occupancy after implementation of discounted fare.

2.1.4.3 Rebate after preparation of first chart

Railway Board introduced 10 *per cent* rebate in the last booked fare on the vacant berths/seats after preparation of first chart on an experimental basis for six months in Rajdhani/Shatabdi/Duronto trains from 20 December 2016. The scheme was also applicable for allotment of vacant berths due to 'no show' passengers in train by TTEs.

Audit examined the trend of occupancy and earnings after implementation of 10 *per cent* rebate on vacant berths/seats booked after preparation of first chart during January and February 2017 and compared it with the period of October and November 2016 i.e. two months prior to and two months after the month of implementation of the scheme and the results of our analysis are given below:

Table 2.12 - Trend of occupancy and earnings after introduction of rebate

Period	No. of services (Shatabdi)	Occupancy (CC)	Earnings (₹)
Oct-Nov 2016	2,481	75,321	6,23,25,386
Jan-Feb 2017	2,404	91,511	7,05,33,776
Increase	(-) 77	16,190	82,08,390
Increase (%)	(-) 3	21	13

Table 2.12 - Trend of occupancy and earnings after introduction of rebate							
Period	No. of services (Rajdhani)	Occupancy			Earnings (₹)		
		AC 2	AC 3		AC 2	AC 3	
Oct-Nov 2016	1,529	9,742	32,064		2,27,60,091	5,03,51,000	
Jan-Feb 2017	1,476	15,580	47,726		4,24,02,483	8,30,423,67	
Increase	(-) 53	5,838	15,662		1,96,42,392	3,26,913,67	
Increase (%)	(-) 3	60	49		86	65	
Period	No. of services (Duronto)	Occupancy			Earnings (₹)		
		AC 2	AC 3	SL	AC 2	AC 3	SL
Oct-Nov 2016	1200	2180	10827	4343	4840268	17328293	2768689
Jan-Feb 2017	1155	3157	14795	5466	7734340	26855341	3667260
Increase	(-) 45	977	3968	1123	2894072	9527048	898571
Increase (%)	(-) 4	45	37	26	60	55	32

Source: PRS Data obtained from CRIS/NDLS

It was seen that

- Though the services of Shatabdi trains were less by 77, there was an increase in occupancy to the extent of 21 *per cent* in CC class. Also, there was an increase in earnings of around 13 *per cent* after implementation of the 10 *per cent* rebate scheme.
- Similarly, though services of Rajdhani trains were less by 53, the occupancy in AC 2 tier and AC 3 tier increased by 60 and 49 *per cent* respectively. The earnings also increased by 86 and 65 *per cent* in respect of AC 2 tier and AC 3 tier respectively after implementation of the scheme.
- Also, while theservices of Duronto trains were less by 45, the occupancy in AC 2 tier, AC 3 tier and Sleeper class increased by 45, 37 and 26 *per cent* respectively. The earnings also increased by 80, 55 and 32 *per cent* in respect of AC 2 tier, AC 3 tier and Sleeper class respectively after implementation of the scheme.

Thus, after implementation of the rebate scheme there has been an increase in occupancy and earnings in all the Premier trains.

Railway Board in their reply stated (July 2017 and February 2018) stated that during interim review after introduction of flexi fare various discount schemes were introduced in premier trains. Audit review has also made a point that after introduction of discount/rebate schemes, there was increase in occupancy which indicates that rail passengers did not perceive value for their money in flexi fare system in Premier trains.

2.1.5 Quality parameters for Premier trains with enhanced fare structure

The White Paper of IR (February 2015) observed that the major issues regarding passenger satisfaction are availability of train accommodation, transit time, punctuality, cleanliness at stations and in trains, catering services, reservation facilities etc.

Parliamentary Committee about passenger fare desired that with increase in train fares, attention be also paid in augmenting/improving passenger amenities and facilities in trains and at Railway stations.

Audit examined the punctuality of Rajdhani/Duronto/Shatabdi trains and obtained feedback from passengers on services provided by Railways. These are discussed in the following paragraphs.

2.1.5.1 Punctuality

Punctuality is one of the most important parameter of the quality of service being provided to the passengers. The punctuality of Rajdhani/ Shatabdi/ Duronto trains terminated in each Zonal Railway during February 2017 (subject to a maximum of two trains in each category) was reviewed in audit. It was observed that

- In 19 Rajdhani trains, out of 311 services, 243 services (78 *per cent*) were delayed and only 68 services maintained their punctuality.
- In 22 Duronto trains, out of 252 services, 167 services (66 *per cent*) were delayed and only 85 services maintained their punctuality.
- In 22 Shatabdi trains taken up for the study, out of 544 services, 347 services (64 *per cent*) were delayed and only 197 services maintained their punctuality.
- In four Rajdhani Trains[16], all the 76 services during the month of February 2017 did not maintain punctuality. Similarly, all six Duronto[17] and six Shatabdi[18] trains with 48 and 149 services respectively did not maintain their punctuality during February 2017.

Annexure 2.4

Thus, even after introduction of flexi fare, punctuality of trains has not been maintained.

2.1.5.2 Passenger feedback on quality of services

To ascertain the opinion of travelling passengers on flexi fare system, Audit administered a survey questionnaire to 806 passengers travelling in 16 Shatabdi and 11 Rajdhani during the month of April 2017 and May 2017.

(i) To a question on '*Whether Indian Railways have provided any improvement in the services rendered commensurate with enhanced fare*', 495 passengers (61 *per cent*) replied in negative.

(ii) To a question on '*Do you feel that you derive the value for the money and time you have spent by travelling in Premium train with flexi fare?*' 445

[16](12302 – New Delhi – Howrah, 12314 – New Delhi – Sealdah, 12433 – Chennai – New Delhi, 22692 – New Delhi – KSR Bengaluru)
[17](12260 – New Delhi – Sealdah, 12274 – New Delhi – Howrah, 12281 – Bhubaneswar – New Delhi, 12273 – Howrah – New Delhi, 12286 – New Delhi – Secunderabad, 12214 – New Delhi – Yesvantpur)
[18](12033 – Kanpur-New Delhi, 12003 – Lucknow - New Delhi, 12041 – Howrah – New Jalpaiguri, 12027 – Chennai – KSR Bengaluru, 12007 – Chennai – Mysuru, 12002 – New Delhi – Habibganj)

passengers (55 *per cent*) replied in the negative and 361 passengers (45 *per cent*) replied in affirmative.

(iii) To a question on '*Given the travel time, flexi fare without value addition, would you prefer to travel by flight/bus'*, 497 passengers (62 *per cent*) replied in affirmative.

(iv) These passengers were further asked to indicate areas which required improvement.

- ✓ 324 passengers (65 *per cent*) stated that food served in trains requires improvement
- ✓ 97 passengers travelling in AC 2 and AC 3 class of expressed that bed-rolls required improvement
- ✓ 176 passengers (36 *per cent*) stated that punctuality needed to be improved
- ✓ 181 passengers (37 *per cent*) stated that cleanliness inside the coach required improvement.
- ✓ 280 passengers (57 *per cent*) indicated that cleanliness of toilets required improvement.
- ✓ Other significant issues identified by passengers for improvement included prevention of unauthorised vendors, cleanliness at station and waiting area, more options/variety in food served, behaviour of pantry car staff, provision of television, mobile/laptop charging points, cleaning of windows and curtains.

Thus, passengers expect better quality services commensurate with enhanced fare. At present many of them feel that they have not derived value for money and time spent in the Premier trains and that they would prefer to switch over to other modes of transport.

2.1.6 Conclusion

The decision to implement flexi-fare scheme in all Rajdhani, Duronto and Shatabdi trains irrespective of the demand and occupancy resulted in decrease in occupancy in all classes except Sleeper class in Duronto trains. There were instances of minor increases in occupancy in a few premier trains. The occupancy increased only in a few Premier trains. Though the Railways had introduced enhanced/dynamic fare in various formats (Enhanced Tatkal fare in Premier trains, Suvidha trains and Special trains with Tatkal fare) before introducing the flexi fare scheme, they did not take into consideration the fact that the occupancy in all classes (except sleeper class in Suvidha Trains) where enhanced/dynamic fare were implemented was very low and AC 2 and AC 3 in these trains were not finding adequate patronage. In AC 3 class also, which is one of the most profitable classes, the occupancy dropped significantly after introduction of flexi fare and the vacant berths increased from 0.66 *per cent* in

pre-flexi period to 4.46 *per cent* in post-flexi period. As such, introduction of flexi fare in AC 3 Tier class in the present form was not judicious. Even in terms of absolute numbers, the Premier trains carried 2,40,79,899 passengers during post flexi period as compared to 2,47,36,469 passengers during pre-flexi period and thus registered a de-growth of 2.65 *per cent* passengers despite availability of higher number of berths/seats. Though Railways earned ₹ 552 crore from passenger earnings from the Premier trains post flexi fare system during 9 September 2016 to 31 July 2017, they carried 6.75 lakh less passengers in Premier trains during 9 September 2016 to 31 July 2017 despite a three *per cent* increase in berth potential as compared to the previous year period from 9 September 2015 to 31 July 2016. Thus, there is a need for review and fine tuning in the scope of the scheme so that not only more revenue is earned but number of passengers also increase, thus, further enhancing revenue. Railway Board in their reply (February 2018) stated that a Committee has been constituted to review the flexi fare/ variable fare system over Indian Railways. The Committee has submitted report on 16 January 2018 and their recommendations are under consideration of the Board.

The occupancy of Mail/Express Trains in the routes where Premier trains run, was found to be much more than the Premier trains during the months test checked (October 2016 and February 2017). As such, passengers preferred to travel by Mail/Express trains over the Rajdhani/Duronto/Shatabdi trains despite a higher travel time for Mail/Express trains.

A comparison with air fare for different Advance Reservation Periods in 13 sectors also showed that air fares were cheaper than the respective train fares for a large number of routes. As such, when compared to the cost and time taken for travel by Premier trains, air fare became a cheaper and preferable mode of travel. While in air fares the prices of tickets increase with increase in demand, in flexi fare, there is a fixed increase in fares after every 10 *per cent* of the tickets booked irrespective of the demand. By paying a higher price for an air ticket, a passenger is ensured a confirmed seat, but a passenger who purchases a waitlisted train ticket by paying a higher amount does not have an assurance of confirmed ticket. Thus, charging a higher fare without providing confirmed seat/berth would force passengers to explore other available alternatives. Railways have recently introduced a new Rajdhani Train between Hazrat Nizamuddin and Mumbai, which would travel the distance in two hours less time than the regular Rajdhani for which Railway propose to charge higher fare for reduction in travel time. Linking of increased fare with a value addition in the quality of service is a welcome step in this direction.

Railway Board introduced a few measures such as reducing the Tatkal quota from 30 *per cent* to 10 *per cent*, discounted fare in AC Chair Car of two Shatabdi trains and 10 *per cent* rebate in the last fare on the vacant berths/seats after preparation of first chart during December 2016. These measures improved the occupancy of the Premier trains to some extent.

Passenger Survey showed that passengers expect better quality services commensurate with enhanced fare. At present, many of them feel that they have not derived value for money and time spent in the Premier trains and that they would prefer to switch over to other modes of transport.

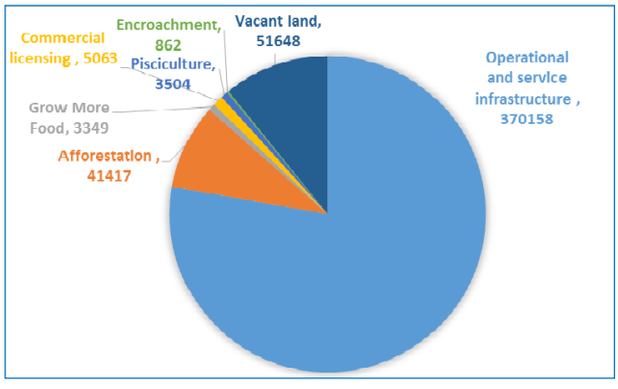
2.1.7 Recommendations

1. ***Railways may review and fine tune the scope of the scheme so that not only more revenue is earned but number of passengers also increase, thus, further enhancing revenue. Instead of enhancing fare across all classes and routes, Indian Railways may consider reviewing the fare structure on the basis of demand and occupancy in different routes.***
2. ***Railway Board may explore the possibility of rationalising the fare structure across all types of trains instead of targeting Premier trains which was already having a separate increased fare structure.***
3. ***Instead of allotting 90 per cent seats/berths under flexi fare scheme and leaving only 10 per cent seats/berths for normal fare, it is recommended that at least 50 per cent seats/berths should be allotted for normal fare.***
4. ***While paying a higher air fare, a passenger is assured a confirmed seat, whereas under flexi fare scheme, when a passenger books a waitlisted ticket at 40 to 50 per cent higher fare, he is not assured of a confirmed seat. It is recommended that for the uncertainty a waitlisted passenger undergoes, he should be compensated by way of a lower fare.***

2.2 Management of commercial plots and parking spaces near stations by Commercial department in Indian Railways

2.2.1 Introduction

Indian Railways (IR) owned 4,76,001 hectares (ha) of land[19] as on 31 March 2017. Land area measuring 3,70,158 ha (77.76 *per cent* of total land) is used for operational and service infrastructure. Railway land is also licensed for various purposes such as afforestation, grow more food scheme, pisciculture and commercial licensing. Besides above, 51,648 ha land is vacant and 862 ha land under encroachment. The breakup of the usage of Railway Land as on 31 March 2017 is given in ***Graph 2.3***.



Graph 2.3: Usage of railway land as on 31 March 2017 (in hectares)

[19] As per records of Land and Amenities Directorate of Railway Board

Para 1008 of Indian Railways Engineering Code enjoins upon railway administration to develop the resources and put to profitable use any areas of land in its occupation and lying idle. As per provisions under Para 1010 of Indian Railways Engineering Code, the Engineering or any other Department of the Railway as decided by the General Manager at his discretion is responsible for management of land in the occupation of the IR. Zonal Railway Administrations are permitted to grant land under license for purposes, whether or not connected with Railway working[20]. Land (other than station areas) including sidings is under the control and management of the Engineering Department of Railways. Land within the station area and near siding for advance stacking of goods is under the control and management of Commercial Department of Railways. Commercial Department gives land licenses to outsiders for stacking rail-borne goods or for any other specified purpose such as operating cycle/scooter stand, car parking etc.

Background

Minister of Railway in the budget speech for the year 2016-17[21]expressed concern over low generation (less than five *per cent*) of revenues through non-traffic sources and expressedthe aim of reaching world average (10 to 20 *per cent*) by monetizing assets and undertaking other revenue yielding activities. A Non-fare Revenue Directorate was constituted at Railway Board[22] in April 2016 for commercial exploitation of vacant land, parking of vehicles in railway land other than stations besides enhancing revenues through advertisements and other sources. Surplus land of Railways is one such non-traffic source where the Railway Administration should endeavour to maximise revenue by profitable use of such areas in its occupation.

In previous studies[23] conducted in audit, the issues related to management and utilisation of railway land under the control of Engineering Department of Railways were covered. The present study is focused on review of management of plots and parking spaces near stations under the control of Commercial Department of IR. The land plots adjacent to Railway stations and at prime locations are much sought after and have huge potential for revenue generation. The plots of land near railway stations were allotted to parties and were traditionally being used for stacking of goods for transportation by the railways. However, after abolition of 'small and piecemeal booking of wagons'[24] in 1980s, these plots were not taken back from plot holders and generally used for the purpose not connected with the working of the railways. Though the Railway Board had issued various circulars on commercial licensing of railway land from time to time, the management of such commercial plots after

[20]Para 1013 of Indian Railway Code for Engineering Department
[21]presented in the Parliament on 25 February 2016
[22]Railway Board's letter No. 2016//O&M/6/2 dated 28.04.2016 (Office Order No. 20 of 2016)
[23]Performance Audit on "Land Management in Indian Railways" (Report No. PA 8 of 2008), Theme Based Audit on "Commercial Utilization of Surplus Railway Land"(Report No. 32 of 2011-12), Theme Based Audit on "Management of vacant land in Indian Railways" (Report No.24 of 2015, Volume II, Chapter 4)
[24] In case of booking of goods by more than one party in a wagon

abolition of 'small and piecemeal booking of wagons' has not been addressed. Despite taking up the issue with the Railway Board by Audit in January 2016, no suitable guidelines have been framed by Ministry of Railways to address the issue.

Though share of earnings from commercial plots is smaller in magnitude, there is significant revenue earning potential which has largely remained untapped as adequate attention has not been given by the Zonal Railway administrations. Audit, in the present study, assessed the steps taken by the railways to maximise earnings from exploitation of commercial plots adjacent to railway stations and at other prime locations having huge potential for revenue generation.

Organizational structure

The responsibility of laying down the policy and framing the rules and regulations with regard to licensing of Railway land for commercial purpose, rests with the 'Land Management and Amenities Directorate' of the Railway Board functioning under the overall supervision of the Member Engineering. At the Zonal Railway level, the Chief Commercial Manager is the implementing and co-ordinating authority for various policies/orders issued by the Railway Board from time to time for the land under the control of Commercial Department. The implementation of instructions/directives at divisional level rests with the Senior Divisional Commercial Manager for the land within station areas and near sidings for advance stacking of goods. At the field level, management of land plots rests with the Commercial Inspectors/Station Managers.

Audit Objectives

The Thematic Audit was undertaken with a view to assess

1. The extent to which the Zonal Railway Administrations were complying with the laid down rules and provisions for management of commercial plots.
2. The adequacy and efficiency of the system of allotment of land/plots, documentation of commercial plots, execution of agreements, utilization of available commercial plots and realization of license fee. and
3. The effectiveness of the measures undertaken to prevent un-authorized occupation of commercial plots and settlement of cases under litigation.

Audit Criteria

The provisions made in the Railways Codes and Manuals, viz. Indian Railway Commercial Manual, Indian Railway Code for Accounts Department (Volume I), Indian Railway Code for Engineering Department and Indian Railway Works Manual and Railway Board' instructions issued from time to time were taken as the criteria for conducting this study.

Audit Scope, Methodology and Sample

A period of three years from 2014-15 to 2016-17 was covered under the study, including cases of previous periods contemporaneous in nature wherever

needed. The study covered examination of records at Zonal Railway Headquarters, Divisional offices and field offices of the seven Zonal Railways viz. SER, ECoR, NER, NFR, NR, SCR and CR[25], where 1,554 plots[26] covering area of 148.88 ha of land is under the control of the Commercial Department. Of this, 984 plots covering an area of 115 ha had been licensed to various licensees. Audit selected, 491 plots for detailed review across these seven Zonal Railways.

Two other Zonal Railways viz. ER and SR were also selected to study the licences of car parking. In all, 55 stations were selected to study the licences of commercial plots and car parking and 108 parking lots in nine Zonal Railways were reviewed in Audit. In the selected stations all licenses of plots, agreements, contracts for licensing of plots, cycle/motor cycle/scooter/car parking were reviewed. Joint Inspections by Audit along with Railway officials were also carried out to ascertain the actual land use in the field.

Annexure 2.5 a and 2.5 b

Audit findings

2.2.2 Standing Committees for licensing of railway land at Zonal and Divisional level

Railway Board reviewed the policy on commercial licensing of railway lands and issued detailed guidelines (August 1995). Railway Board further issued a Master Circular [27] (February 2005) on commercial licensing of land incorporating all the earlier policy instructions. The salient features of the policy were as follows:

- Temporary licensing of railway land not connected with railway working was banned; however, existing licensees could be renewed from time to time so long the land was not required by railway for its own purposes.
- Licensing of ordinary commercial plots connected with railway working would be done with the personal approval of General Manager in consultation with Financial Adviser and Chief Accounts Officer (FA&CAO).
- License would be renewed by Divisional Railway Manager (DRM) on the recommendation of Committee of Divisional Heads of Engineering, Commercial and Finance Departments.

In case of fresh licensing, at Zonal level, a Standing Committee[28] consisting of Chief Engineer, Chief Commercial Manager and FA&CAO examines cases connected with railway working as indicated above except Shops/Retail Depots etc. The Committee submits recommendations to General Manager for approval.At Divisional level, the Committee consisting of Senior Divisional Engineer, Senior Divisional Commercial Manager and Senior Divisional Finance Manager reviews annually whether the traffic commitments by the licensees of

[25] After selection, it was seen that CR did not have any commercial plot in the selected stations. Thus, only parking lots were reviewed in CR.
[26] Includes 294 plots in BSB Division of NER, where area of land was not on record.
[27] Railway Board's letter No. 2005/LML/18/8 dated 10.02.2005
[28] Para 4 of Railway Board's Circular of 2005

the commercial plots have actually materialised and in case of any deviation, initiate suitable corrective action including de-licensing and vacation as necessary.

Audit observed that

- Standing Committee of three Head of Departments hadnot beenset up in two Zonal Railways (NER and NFR). In SER, though the Committee was formed, the Committee was entrusted the work of only signing of pending agreements and not for reviewing the volume of traffic offered by plot holders. As such, the Committee's scope of work was limited.
- At Divisional level, the Standing Committee consisting of Divisional Heads of Engineering, Commercial and Finance was not set up in NER and ECoR. In NR, the Committee was set up in Ferozpur and Umbala Divisions only.
- Out of seven selected Zonal Railways, fresh licenses were given only intwo Zonal Railways (NFRand SCR) during the review period.In all the selected Zonal Railways, commercial plots were given on short period license basis. However, these were notrenewed in four selected Zonal Railways (SER, ECoR, NER and NEFR).

Thus, the mechanism of Standing Committee to examine fresh cases of licensing of commercial plots and monitoring them was not being used effectively in the selected Zonal Railways.

2.2.3 Maintenance of records at Divisional Commercial Office and Stations

Chapter VIII of the Indian Railway Works Manual includes detailed instructions/guidelines about the acquisition, management and disposal of land. For the land under the Commercial Department viz. station areas and sidings, the responsibility of allotment of land and realisation of license fee rests with the Commercial Department.

(a) Audit observed that

- At Zonal Headquarters as well as in the Divisional Commercial offices, the Railway Administration had no data base of the commercial plots in all the selected seven Zonal Railways.
- While the digitization of land records had been done to large extent in the plots managed by the Engineering Department, the same was yet to start in respect of plots managed by Commercial Departments in the selected Zonal Railways.
- There was no separate land management cell in Commercial Department both at Zonal Headquarter and Divisional Level in any of the selected Zonal Railways. The Land Management Cell at the Zonal and Divisional level which manages the plots of Engineering Department, did not monitor the plots of Commercial Departments and they also do not have any database/details of Commercial Plots in all selected seven Zonal Railways.

(b) Audit examined the maintenance of records of plots allotted by their Commercial Departments in the selected seven Zonal Railways. It was observed that:

- In ECoR, 144 plots covering 42,523 sqm in Cuttack under Khurda Road Division were allotted as commercial plots before independence. Records in respect of these plots were, however, not available with Commercial Department.
- In SER, details of initial allotment of plots in four[29] stations under Kharagpur Division were not available. In Kolaghat, there were 170 commercial plots, but the vital details such as area of plot, date of allotment, renewal of license agreement and license fee recovered were not available in respect of 32 plots.
- In NER, copies of license agreements were not available at five selected stations[30]. Records of outstanding license fees were also not available in two selected stations[31]. In Lucknow Division, there were 102 commercial plots, but details of 32 plots such as the area of plot, date of allotment, renewal of license and license fee recovered were not available.

Thus, records related to licensing of land, fixation of license fee, renewal of license agreement and recovery of license fee etc. were not available with the Railways in respect of a significant number of stations to monitor timely collection of license fee from the licensees.

During Exit Conference (October 2017) SER Administration opined that a separate land cell needs to be set up by the Commercial Department for managemet of commercial plots and land records digitized for proper management. Whereas, NER and SCR Administrations contended that as Engineering Department is the custodian of land, records should be maintained by Engineering Department.

2.2.3.1 License Register

As per provisions[32], a License Register should be maintainedat all the stations. A separate page should be allotted for each plot and the index should be kept posted up-to-date to facilitate easy reference. Station Manager is personally responsible to ensure that the required particulars are correctly posted in the License Register in accordance with the information furnished by the Divisional Office. Station Managers (SMs) are responsible for realizing the licence fee and other charges due from licensees at their stations as stipulated in the agreement and for accounting the same. Any case of encroachment or subletting of the licensed land or violation of other stipulations of the agreement by the licensee should be reported to the Senior Divisional Commercial Manager (Sr.DCM). In addition, a monthly statement showing the particulars of recovery of licence fee

[29]Andul, Kolaghat, Panskura and Balasore
[30]Lucknow City, Basti, Colonelganj, Naugarh, Shahmatganj
[31]Lucknow City, Basti
[32]Para 3014 of Indian Railway Commercial Manual (Volume II)

during the month should be submitted to the Sr.DCM and to the Traffic Accounts Office, along with the relevant balance sheet. In Railways, where the work is decentralized, this statement should be sent to Divisional Accounts Office instead of Traffic Accounts Office.

Audit observed that

- License Registers were not maintained in the Station Manager (SM) offices in NR and SCR. These were, however, maintained in all the selected stations in SER, one station each[33]in NER, NFR and ECoR.
- In SER, separate page for each plot was not allotted in the register of four stations[34]. In ECoR and NER, detailed entries as per prescribed format were not made in the Register.
- In all selected Zonal Railways, monthly statement showing position of recovery of license fee and outstanding recovery was not regularly sent by SMs to divisional offices.
- In SER[35], license fee bills/demand notices were not issued to plot holders. License fee was collected by SM (Kolaghat and Panskura) as and when plot holders made payments. In respect of other stations of SER, the following were noticed:
  - In Balasore station, license fee was fixed at enhanced rate in the year 2006 in terms of Railway Board's order of 2005. The plot holders had made payment up to March 2011 at revised rate and thereafter no license fee had been paid due to litigation. At the end of March 2017, license fee amounting to ₹ 6 lakh remained unrealized from two plot holders.
  - In Andul station, all the plot holders (21 nos.) had stopped payment of license fee since December 1997. Reasons for the same were not available on record. License fee, at the end of March 2017, amounting to ₹ 3.24 crore remained unrealized from plot holders.
  - In Kuldiha station, one plot holder holding 55 plots had made payment up to 2003 and thereafter filed court case against eviction order issued by Railway Administration for not fulfilling the target of traffic. Thus, the license fee in respect of 55 plots was outstanding for recovery for the last 14 years.
  - In Manoharpur station, a bill was raised for license fee of ₹ 9.09 crore pertaining to period 2007-08 to 2014-15on SAIL.However, no records in support of receipt of payment from SAIL, was available with the Railway. It was also noticed that license fee at normal rate for the year 1981, 1985 and 1991 from SAIL was also outstanding for recovery.
  - In Kolaghat station, one plot holder (Plot No.45) approached (December 2016) the railway administration to surrender the plot but railway did not take over the possession of the plot as the plot had a structure on it.

[33]Colonelganj in NER, Jogighopa in NFR, Brahmapur in ECoR
[34]Panskura, Balasore, Manoharpur and Kuldiha
[35]Kharagpur division

Due to delay in takeover by the railway, this piece of land was susceptible to encroachment.

- In NER, in the records of Divisional office, Lucknow there were 21 commercial plots at Colonelganj station, whereas in the records of the concerned station, details of only 19 plots were available. Thus, there was lack of coordination between Divisional office and the concerned station.

Thus, the Station Managers did not ensure proper maintenance of records, timely realisation of rent and timely reporting of events to the divisional office in the stations test checked by Audit.

During Exit Conference (September/December 2017), NER and SCR Administration stated that as Engineering Departemnt is the custodian of land and the plots are maintained by them, license regisers should be maintained by the Engineering Department. ECoR Administration assured to take remedial action in this regard.

2.2.3.2 Licensing Agreements

Railway Board instructed[36] that in each case of licensing, proper agreement must be executed between the Zonal Railway Administration and the licensees before the licensee is given possession of the land/plot. This must be strictly followed and for any violation of these instructions, the official handing over land before the execution of agreement shall be held personally responsible by the Railway Administration. A copy of agreement will be provided to the Station Manager by the Divisional office to ensure that the conditions attached to license are correctly met by the licensee.At Divisional level, Sr. DCM, Sr. Divisional Engineer and Sr. Divisional Finance Manger shall be responsible for execution of various agreements for commercial licensing. In this regard, Audit observed that

- Agreements with none of the plot holders were executed in ECoR (177 plots) and NER (65 plots).
- Copies of agreements were not available in 212 plots of selected four[37] stations of Kharagpur Division of SER and three plots of two[38] stations in NFR.
- Although agreements were executed, these were not renewed in eight[39] plots in NR, two[40] plots in SER (Chakradharpur Division), nine[41] plots in NFR and three[42]plots inSCR.

[36]Railway Board's letter No. 83/W2/LM/18/87 dated 29.08.1995 and 2005/LML/18/8 dated 10.02.2005
[37]Andul, Kolaghat,Panskura and Balasore
[38]Jogoghopa(JPZ) -1plot, Jorhat Town (JTTN)-2 plots
[39]Ambala-2 plots,Ferozpur- 6 plots
[40]Manoharpur and Kuldiah
[41]Jogighopa(2 plots), Shibsagar Town (3 plots), Jorhat Town (3 plots),New Bongaigaon (1 plot)
[42]Ravikampadu, Rechni Road and Mandamarri

- In SER, copies of license agreements for commercial plots were available in ChakradharpurDivisional office, but the same were not available in two SM offices of Kuldiha and Manoharpur. In SER, the following was observed further:

  - From the register maintained at Manoharpur station (Chakradharpur Division), it was seen that between the years 1991 to 2017, the number of plot holders have reduced from 17 to 01 and the number of plots from 79 to 03. From the record, it was seen that only four plot holders had surrendered 21 plots in the year 1991. Thereafter, no records were maintained to show the number of plots surrendered/cancelled in subsequent years. In the absence of relevant information/records, possibility of unauthorized occupation of these plots cannot be ruled out. A cross check of records at the Sr.DCM's office at Chakradharpur, showed that there were 13 plots under four plot holders atManoharpur station at the end of 2016-17. As such, the position at divisional office and concerned station was not reconciling. This indicated lack of co-ordination between Divisional office and concerned station.

    During joint inspection, SM/Manoharpur could not explain the location of all the plots as appearing in the Divisional office records (13 plots under 4 plot holders). SM is the custodian and responsible for managing the Commercial plots and his unawareness about the details of the plots were indicative of possible unauthorised occupation of plots. In absence of complete details of plots andstatus of plots licensed, the possibility of non-recovery of licensing fee cannot be ruled out. Also, the railway administration is not aware whether there is any encroachment of railway land.

  - As per records of Chakradharpur Division, there were 73 plots (13,049 sqm) in Kuldiha station, out of which 55 plots (9,197 sqm) were allotted to a single licensee. The details of remaining 18 plots (3,852 sqm) were not made available.

- In NFR, two[43] commercial plots were allotted on the basis of temporary stacking order issued by Divisional office, but no agreement was executed.

- In SCR, in case of three plots[44] agreements were not renewed after 01 April 2017. A plot (26,610.10 sqm) at Ravikampadu station was licensed to M/s Maheswari Minerals. Though the period of contract expired on 30 June 2016; no renewal of agreement was done. Although there was demand of this plot for stacking of laterite ore, the plot was not allotted to anyone. Reasons for not licensing the plot (from 01 July 2016) were not on record. Railways lost an opportunity to earn a license fee of ₹ 5.84 lakh for the period 01 July 2016 to 31 March 2017.

[43]Fakiragram (area-350 sqm) and Jogighopa (area-5,320.84 sqm)
[44]Ravikampadu, Rechni Road and Mandamarri

Thus, railways needed to strengthen the land management by ensuring timely execution of agreements and their renewal when due and maintain a comprehensive database of land available under the jurisdiction of the Commercial Department.

2.2.4 Utilisation of land/plot by the licensees/plot holders

Under the provisions[45], railway land/plots/buildings and other structures within railway premises are licensed to outsiders for stacking rail-borne goods or for any other specified purpose such as operating a cycle stand etc. Copy of the license agreement, indicating the purpose for which the license granted, should be provided to the Station Manager by the Divisional Office to ensure that the conditions attached to license are correctly fulfilled by the licensee. The Station Manager and inspecting officials should ensure that plots have been properly demarcated and that there are no unauthorized infringements. On review of status of utilisation of railway plot/land in the Zonal Railways, Audit observed the following:

- Information about the present utilization of all the plots was not available with SM in a number of the cases. No survey was done by the railways to assess the present use of these plots allotted long time ago. In SER, where a survey of 18 plots was done by the railways, it was found that these were being used for residence, shops including wine shops, satta corner, electric goods, auto stand, etc. Joint inspections by Audit teams along with railway officials also revealed that presently the plots were being used for shops, offices, godowns, factory etc.
- Plots were illegally transferred from original allottee to sub-allottee and even by sub-allottees to other occupants through transferring on sale deed between the parties on low value non-judicial stamp paper in presence of witness and deed of donation and registered in the state government sub-registry office.
- Railway plots were given on temporary license basis. No plot holder was permitted to erect any permanent structure except with specific approval of the Railway Administration. It was, however, noticed that the plot holders had occupied the plots unauthorized and erected permanent structures.
- Instances were noticed wherein, commercial plots allotted to various government companies/corporations, were not vacated, though not being used by them.

Annexure 2.6

Thus, railway plots were being used for purposes other than the purpose for which it was allotted initially to the plot holders. Railways had not undertaken any survey to assess the present use of the plots and take action to cancel the land allotment.

[45]Para 3013 of Indian Railway Commercial Manual (Volume II)

2.2.5 Sub-letting of plots by the original licensees

Commercial plots near the stations were given on temporary license for stacking and loading of goods. After introduction of block rake[46] booking, goods as 'Small' and 'Piecemeal Wagons' by railways was phased out by the end of 1980s and as such the purpose for which the plots were originally licensed were not relevant thereafter. However, no efforts were made by the Railway Administration to de-license and to get the land vacated by small traders occupying commercial plots. These plots still remained either in the hands of original licence holders in very few cases or handed over by them to others un-authorizedly in most of the cases. In June 1998, Railway Board[47] gave opportunity to the existing plot holders who were running their business on power of attorney on behalf of original licensees to get license of the plots in their name. Considering the problem and huge revenue loss to Railways, Railway Board in July 2004, further decided to permit as one time opportunity for change of name of allottee, regardless of whether they were legal heirs or not the original allottee. However, such permission of licensing would be for five years. After five years, all plots were to be auctioned afresh and allotted to highest bidder duly giving first right of refusal to the present occupant.

(a) In four selected Zonal Railways (SER, NER, ECoR and SCR), out of 467 commercial plots, Audit observed that

(i) only 129 plots (27.62 *per cent*) were occupied by the original allottees,
(ii) only one plot (0.21 *per cent*) was formally transferredto licensee, but no agreement was executed,
(iii) 31 plots (6.64 *per cent*) were occupied either by legal heir or others on power of attorney,
(iv) 121 plots (25.91 *per cent*) were unauthorized occupied either by family members/relatives of the original allottees or outsiders,
(v) Zonal Railway Administration did not have any information about the remaining 185 plots (39.61 *per cent*).

Annexure 2.7

(b) In SER, it was observed that though the Railway Administration claimed that in some cases plots were formally transferred 'on power of attorney' and recorded in the register of stations, the power of attorney was not made available to audit for verification. It could not be established whether the power of attorney was legally acceptable to the railways. Railway was accepting license fee in the names of the original allottees without verifying whether they were actually alive or from the present occupants without verifying the occupation of the commercial plot. In NER, four plots were unauthorized occupied by original allotees/heirs of original allottees/outsiders since 2000 in Naugarh station under Lucknow Division.Records were not available to ascertain whether any of the Zonal Railway Administrations had taken action to permit as one time

[46]Booking of entire rake for carrying bulk goods/consignment such as coal, cement etc.
[47]Railway Board's letter No. 97/LML/18/67 dated 25.6.1998

opportunity for change of name of allottees as per Railway Board's instruction of July 2004, regardless of whether they were legal heir or not of the original allottees. Besides, no action was also taken to auction afresh after five years and allotted to highest bidder duly giving first right of refusal to the present occupant.

Thus, information available with the Zonal Railway Administrations regarding the commercial plots licensed by them was incomplete. A significant number (33 per cent) of plots were occupied by persons other than the original allottee. Despite instructions of Railway Board, Zonal Railways neither took action to give one time opportunity for change of name of allottees nor auction the same.

2.2.6 Fixation and realisation of license fee

In August 1995 and February 2005[48], Railway Board formulated policy guidelines for licensing of railway land. As per these guidelines, licence fee was to be fixed at the prescribed percentage of land value for the specific purposes; the land was to be used. Market value of land of the surrounding areas as on 1 January 1985 was to be taken to serve as base value for fixing the licence fee. The land value was to be increased every year on the 1st of April, starting from 1 April 1986 at the rate of 10 *per cent* over the previous year's land value to arrive at the land value for the following year. From 1 April 2004 onwards, the land value was to be increased at the rate of seven *per cent* every year over the previous year's value. However, for fresh cases of licensing of plots, licence fee was to be fixed after obtaining the current value of land. The minimum licence fee of plots should be ₹ 1,000 per annum. Para 1025 of Indian Railway Code for Engineering Department stipulates that recovery of licence fee should be done in advance. In addition, payment of security deposit should also be made. In case of non-payment of advance occupation fee, liquidated damages at the rate of one *per cent* per month or part thereof to be charged.

2.2.6.1 Outstanding license fee

Audit observed that license fee of commercial plots were not fixed based on market value ofland as instructed by the Railway Board[49]. In five selected stations[50] in SER, two stations[51] at NFR and one station[52]each in ECoR and NER. The other irregularities noticed in fixing and realisation of license fee in the Zonal Railways were as under:

(i) In Andul and Balasorestations of SER, plot holders were not paying license fee since 1997 and 2014 respectively. However, no effective action was taken by the Railway Administration. Even old license fee payable prior to implementation of 2005 order of Railway Board, amounting to ₹ 1.57 crore

[48]Railway Board's letter No. 83/W2/LM/18/87 dated 29.08.1995 and 2005/LML/18/8 dated 10.02.2005
[49]Railway Board's letter No. 2005/LML/18/8 dated 10.02.2005
[50]Andul, Kolaghat, Panskura, Kuldiha and Manoharpur (3 plot holders out of 4)
[51]Sibsagar Town –One plot, Jorhat Town- four plots
[52]Daitari in ECoR, Lucknow City in NER

in KharagpurDivision[53] and ₹ 0.03 crore in Chakradharpur Division[54] was outstanding from the plot holders in selected stations as on March 2017. Based on market value of land, audit assessed that license fee recoverable in five[55]selected stations was ₹ 43.04 crore in Kharagpur Division (SER) and ₹ 0.20 crore in Chakradharpur Division (SER). The plot holders were utilizing the plots for different purposes by paying very meagre license fee to the railways due to non-revision of the license fee. Instances of usage of the commercial plots and loss of revenue are given in **Annexure 2.8 a and 2.8 b.**

(ii) At JammuTawi station in NR, the outstanding amount of license fee against three plot holders at the end of March 2017 was ₹ 5.31 crore.

(iii) In NER, License fee of ₹ 8.17 crore, pertaining to the period April 1995 to March 2017, was pending for recovery as on 31 March 2017. Reason for non-payment of license fee was attributed to refusal of allottees to pay license fee at the revised rates and with retrospective date. Further, in Lucknow Division, the Railway Administration had circulated revised rate of license fee w.e.f. 1st April 1985 to 156 stations, but no recovery particulars of the license fee at the revised rates was made available by the Railway Administration to audit for necessary examination.

(iv) At Sibsagar Town and Jorhat Town stations in NFR, license fee amounting to ₹ 29.33 lakh[56] was outstanding at the end of March 2017.

Thus, plot holders were not paying license fee in a number of cases and huge amount was outstanding in the selected Zonal Railways.

2.2.6.2 Procedure of billing of license fee

Para 1139 to 1141 of Indian Railway Code for Accounts Department (VolumeI) include provisions for the maintenance of 'Register of Bills Recoverable' in the Accounts Office and duties of the Accounts Department in this regard. It stipulates that all dues recoverable from the parties for any purpose should be entered in the 'Register of Bills Recoverable', register should be reviewed monthly with a view to see that the bills have been correctly issued to all parties in time and necessary action is taken towards the realisation of the outstanding bills.The realisation of the bills should be vigorously pursued with the parties and cases of delay in payment should be promptly brought to the notice of the Executive Officer concerned for expeditious action to recover the outstanding dues or to discontinue the service etc. The Accounts Officer should report the position every quarter to the FA&CAO.

Audit observed that in all selected Zonal Railways except CR[57], license fee bills were prepared by CommercialDepartment. In SER, bills for license fee were not

[53]Kolaghat,Andul,Panskura and Balasore

[54] In ChakradharpurDivision two stations was selected. Due to non-availability of land value of Manoharpur station, only Kuldiah station was taken both in railway's assessment and in audit assessment.

[55]Four stations in Kharagpur Division Kolaghat, Andul, Panskura and Balasore and one station in Chakradharpur Division-Kuldiha, due to non-availability of market value of land, Manoharpur could not be assessed.

[56] Based on the Railway Board's instructions, the outstanding license fee worked out in audit at ₹ 30.58 lakh.

[57] No commercial plots in CR

prepared by Accounts/Commercial Department. Station Managers (SMs) were collecting license fee from plot holders with seven *per cent* increase in license fee over previous year, as and when plot holders approach SMs for making payment. It was further observed that

- In SER, there was mismatch of figures of outstanding license fee between Accounts and Commercial Department in Kharagpur division. At the end of March 2017, in the Bills Recoverable Register of Accounts, the outstanding amount from all the plot holders of Kharagpur Division was ₹ 1.84 crore whereas the outstanding amount was ₹ 2.19 crore as per records of Commercial Department. Further, in Chakradharpur Division, amount of bills was not entered in the Bills Recoverable Register maintained by the Accounts Department. The amount of outstanding license fee from all the plot holders inChakradharpurDivision at the end of March 2017 was ₹ 26.49 crore.
- In ECoR (Visakhapatnam Division) and NR (Delhi Division), amount of bills were not entered in the Bills Recoverable Register.
- In NER (Lucknow Division) licence fee bills of commercial plots were not prepared due to litigation. No proper data base of license fee accrued, recovered and outstanding was maintained at the stations, Divisional Commercial office and Accounts Department.
- In NER, SCR and NFR, license fee bill amounts were not entered in the Bills Recoverable Register in Accounts office.

Bills recoverable registers were not being maintained properly which impacted the monitoring and recovery of license fee from the plot holders.

2.2.6.3 Fixation of licence fee for Iron Ore stacking and its realisation

In view of unprecedented demand for construction of private sidings for loading of iron ore, the Railway Board issued policy guidelines vide Freight Marketing Circular No. 12 of 2008 (August 2008)[58]. Licence fee of railway land for construction of siding and advance stacking of iron ore was fixed at six times of the normal licence fee. Further, Freight Marketing Circular No. 12 of 2008 was withdrawn by the Railway Board in November 2014[59] mentioning that there would be no separate policy for 'Iron Ore' sidings. All sidings would be covered under the purview of 'Liberalization of Siding Rules' circular.

Out of seven selected Zonal Railway, SER and ECoR were dealing with iron ore. It was observed that

- In SER, in two stations (Kuldiah and Manoharpur) over Chakradharpur Division, plots were allotted for the purpose of iron ore stacking. At Kuldiha station, all plots (55 nos.) were allotted to a single party. Fixation of license fee as per extant rule was not done due to litigation. At Manoharpurstation, out of 12 plots, three plots were allotted to SAIL. BillS for license fee of ₹

[58]Railway Board's letter No. 155(G)/2008 dated 28.08.2008
[59] Railway Board's letter No. 99/TC(FM)/26/1 (Iron Ore)/Pt.-I dated 17.11.2014

9.09 crore for the period 2007-08 to 2014-15 preferred on SAIL remained outstanding. Divisional office Chakradharpur (May 2015) sought clarification from Zonal Headquarter regarding license fee to be fixed for the period starting from issue of circular (2008) on increase of license fee to six times till the date of withdrawal of the same (2014), but clarification was still awaited.

- In ECoR, one plot of area 18,000 sqm at Daitari station was allotted to Orissa Mining Corporation for Iron Ore stacking since 1981-82. The license fee was not enhanced/revised in terms of the Railway Board's order of 2008. License fee due at the revised rate for the period 2008-09 to 2014-15 worked out in audit was ₹ 1.08 crore, whereasonly ₹ 0.17 crore was recovered by Railway Administration.

2.2.7 Licensing of land for Cycle/Motor Cycle/Scooter/Car parking

Facility of parking of private and public vehicle[60] in railway station premises is provided by the railways. The Railway Board issued policy guidelines at different times[61]. The primary objective of this policy is to extend parking facility to the passengers as an important amenity at all categories[62] of stations i.e. A-I, A, B, C, D, E and F stations where such facilities are required. All endeavours should be made to realise maximum potential of earnings from this source. A team of nominated Engineering and Commercial officials shall finalize a plan for each station after conducting a survey of the proposed parking area with locations and dimensions clearly marked on the plan. Contracts are to be awarded on open tender basis for a period of three years. In case of lack of response, contracts can be awarded on quotation basis for a limited period of three months. Railway Board modified the policy in May 2015[63], and delinked the reserve price with the value of land and directed to assess the same on the basis of number of users, type of vehicles, parking charges prevailing at other locations in the area, last accepted rate etc. In each case of licensing, proper agreement was required to be executed[64] between the Railway Administration and the licensees before the licensee was given possession of the land/plot.

(a) Scrutiny of contracts and relevant records of cycle/motor cycle/scooter/ car parking at selected stations showed that in a number of stations, there were disputes with contractors managing the parking lots and licensee fee was yet to be recovered. At Bhubaneswar Station, parking area of 2000 sqm was not under any contract for parking. At Howrah station, the period of licensing expired in July 2017 and the licensee has deposited fee beyond the period of contract and the tender process was going on as the time of audit. At Vishakhapatnam station, the license fee was not revised on 1 April 2016 @ 10 *per cent*, in respect of three parking lots of 5673 sqm, 1844 sqm and 1640 sqm respectively, which

[60]Cycle, motorcycle, scooter, car, call taxi, radio taxi, passenger carrying commercial vehicles (PCCVs), autos, tempos, minibus, bus etc.
[61]Railway Board's letter No. 2004/TGIV/8/P dated 29.10.2004, 12.02.2014 and 14.05.2015
[62] Categorised on the basis of earnings from passengers
[63]Railway Board's letter No. 2004/TG-IV/8/P dated 14.05.2015
[64]Para 2.4 of Railway Board's letter No. 83/W2/LM/18/87 dated 29.8.1995

led to short-recovery of the amount of ₹ 7.27 lakh. At Gorakhpur station, an amount of ₹ 17.33 lakh for September 2015 to June 2016 was outstanding from the contractor, who left the work without payment. At Katihar station, the contractor was allowed to manage the parking on quotation basis for one year and ₹ 1.67 lakh was outstanding against him. Two parking lots of area 1318.50 sqm and 2200 sqm were not licensed for collection of parking fee.

Annexure 2.9

(b) As per Railway Board' instructions[65], agreement should be executed within 30 days of issue of letter of Acceptance after deposition of Security Deposit and Performance Guarantee. It was noticed that out of 365 cases, in 71 cases, agreements were not executed before awarding of contracts. Advance payment was also not taken resulting in outstanding licence fee. The Railway Administration in some cases either could not finalise the contract agreement in time resulting in running the stand departmentally involving additional cost of staff or plot was lying vacant without earning any revenue.

(c) As per Railway Board's instructions of May 2015, the licensee should (i) have insurance for vehicles against loss, theft or damages etc. and submit receipt of such insurance to the Railway Administration for verification, (ii) pay the fair wages to the workers engaged by him, (iii) keep a proper record of such payments etc. and submit a certificate every month to the Railway Administration and (iv) display rate board at conspicuous place, staff should wear uniform and having identity card, issue computerized coupon for A1 and A category station.

During joint inspection, it was observed that insurance of vehicle was not made in any of the selected station of the selected Zonal Railways or submitted receipt to the Railway Administration for verification. Minimum wages were not paid in any of the selected station or submitted monthly return to the Railway Administration. The staff were not wearing uniform in SER (except Tatanagar), ECoR, NR and SCR. The staff were not having identity card in SER, ECoR (except Vishakhapatnam), and NR. Computerized coupons were not issued by the licensee at A1 and A category stations viz. Kharagpur, Tatanagar, Rourkela, Jharsuguda (SER), Cuttack, Bhubaneswar, Sambalpur, Vishakhapatnam (ECoR) and all the selected stations of SCR. During Exit Conference, SER Administration stated (October 2017) that presently, there was no mechanism to ensure enforcement of statutory obligations. ECoR Administration stated (December 2017) that they will pursue the matter with the contractor.

(d) During joint inspection in SER and ECoR, audit observed that

In SER,

(i) the station circulating area (Kharagpur-South) land measuring 500 sqm was found occupied by Taxi Association without any agreement with the Railway administration. No parking charges were collected from the occupants.

[65]Railway Board's letter No.2004/TG-IV/8/P dated 14.5.2015

(ii) Two plots of land 100 sqm each adjacent to cycle stand at Midnapore were being utilized unauthorized by the licensee of cycle stand.
(iii) 500 sqm of land was lying vacant at Midnaporewhere several vehicles were parked.
(iv) Auto-rickshaws were found parked in group in front of both Entry and Exit Points of Tatanagarstation.
(v) Unclaimed cycle and scooters at Rourkela were kept in cycle stand/parking plot occupying huge space. Though the report in this regard was sent to GRP (August 2016), no action wastaken by GRP as yet.
(vi) In front of Jharsuguda station (area about 1,500 sqm) number of Cycle/Motor cycle/Scooter/Auto rickshaw and cars were found parked. No parking charges, however, were collected for parking the vehicles by the Railway Administration.

In ECoR,

(i) At Cuttack (cycle stand No. 02) against the allotment of 400 sqm, the licensee utilized an area of 534.61 sqm thereby encroaching extra plot of 134.61 sqm revenue loss assed as ₹ 1.49 lakh per annum.
(ii) At Bhubaneswar the licensee had been using an area of 4,628.35 sqm instead of 3,913 sqm allotted to him i.e. extra 715.35 sqm was unauthorized used. The potential revenue which railways could earn from this extra land was assessed as ₹ 5.90 lakh per annum. Date since when the present licensee occupied the above area unauthorizedwas not recorded.
(iii) At Brahmapur (parking stand no. 03) an area of 476 sqmwas licensed. The licensee occupied total area of 510 sqm. The licensee did not pay the license fee for the extra plot. The loss of license fee for the period from 09 Jan 2017 to 10 July 2017 as assessed in audit worked out to ₹ 6.12 lakh.

Thus, railways did not execute agreements for parking lots promptly in many cases and also did not enter into agreement in some places. The contractors were managing the parking lots in an un-professional manner and the railways were not able to ensure that they provide service as per the agreements and recover dues from contractors.

2.2.8 Prepaid Auto/Taxi Booth on Railway Land

Prepaid Auto/Taxi booths are generally managed by local police/Government Railway Police (GRP) in the space earmarked for Auto/Taxi stand. The charges are collected from the taxi operators by the State Authorities like local police/GRP etc. and the parking charges as applicable are collected by the Railways either directly or through parking contractor[66] at the rates decided by the Divisional authorities in consultation with Associated Finance and with the approval of DRM/ADRM[67]. Audit observed that:

- In SER, Police Department, Government of West Bengal requested (January 2012) the Divisional Railway Manager (DRM)/ Kharagpur for permitting them

[66]Commercial Circular No.4 of 2014 dated 12.2.2014
[67] Para 11 of Railway Board's letter No. 2004/TG-IV/8/P dated 12.02.2014 and 14.05.2015

to run a pre-paid taxi booth at Santragachi station in the interest of public service. Proposed area for the pre-paid taxi booth was developed in September 2016 by the Engineering Department at a cost of ₹ 13 lakh (approx).Howrah City Police started (January 2017) operation of the pre-paid taxi booth without taking permission of the Railway Administration and without finalizing the modalities of collection/sharing of parking charges.No parking charges were being recovered by the Railway Administration.

- In ECoR, one pre-paid Taxi stands 1,225 sqm are being operated at Cuttack station by Police Commissioner/Cuttack since the plot was handed over October 2011 by the Railway Administration. Railway Administration fixed the reserved price at ₹ 9.28 lakh per annum in March 2015 and intimated the Commissioner of Police to float a tender. However, the tender was not floated and methodology of revenue sharing was also not formulated. Police authorities were collecting charges from the taxi owners without sharing it with the Railway. Railway sustained a loss of ₹ 46.44 lakh towards parking charges from 2012-13 to 2016-17. State Police Commissioner operating one pre-paid auto booth at Bhubaneswar station and one pre-paid auto booth at Visakhapatnam station. No relevant records or agreements of these operations were available with the Divisional Commercial offices. No revenue was shared with the Railway Administration. During Exit Conference, ECoR Administration stated (December 2017) that as a measure of passenger amenities, the land has been handed over free to the State Police to operate pre-paid taxi booth and that they will look into the matter of revenue sharing.

- In NR, prepaid taxi booths are being operated at New Delhi and Ghaziabad stations. At Ghaziabad, position of recovery of parking charges could not be verified due to non-maintenance of records by the Railway Administration. In respect of New Delhi station, no parking charges were being recovered either directly or through Delhi traffic police.

- In CR**,** prepaid Taxi booth was operated at CSMT and LTT stations of Mumbai Division by entering into agreement in September and November 2011 respectively with the Regional Transport Office (RTO), Central Zone, Mumbai Central. In February 2015, the Railway Administration proposed to collect the parking charges from the passenger carrying vehicles by the agency appointed by the RTO at a rate of ₹ 10 per vehicle as per the revised policy issued[68]. However, RTO did not agree and stated that taxi stands at railway stations were run by taxi drivers through their association/union for the benefit of taxi drivers and general public. In the year 2013-14, 49,560 pre-paid taxis were booked from these two stations. Taking into account, the parking charges @ ₹ 10 per vehicle, Railway Administration could have earned ₹ 4.96 lakh per annum.

[68]Commercial Circular No.4 of 2014 dated 12.2.2014

- NER, one pre-paid Auto/Taxi Booth is being operated at Gorakhpur station by GRP. However, Railway Administration could not furnish any record/ agreementand detailsof license fee collected. In absence of records, it could not be ascertained whether any license fee collected by GRP was being shared with the Railway Administration.
- In NFR, one pre-paid taxi booth at New Jalpaiguri was being operated and managed by GRP authorities. No charges or revenue sharing was, however, being received by the Railway Administration for operation of pre-paid taxi both on the railway land.

All the pre-paid auto/taxi booths were being operated on railway land. As per Commercial Circular (February 2014), the State police or GRP may manage thepre-paid auto/taxi booth, but the parking charges to be collected by the Railways either directly or through parking contractor. In all the above cases, though the State police was running the pre-paid auto/taxi booths, Railway Admirationsdid not take suitable action/pursue the matter with the authorities concerned for collection/sharing of parking charges for running of pre-paid booths.

2.2.9 Un-authorised occupation of Commercial Plots

Railway Board from time to time has issued instructions to the Zonal Railway Administrations for taking steps to prevent encroachments and remove existing encroachments on railway land. Joint Procedure Orders (JPOs) signed between Chief Security Commissioner, Chief Commercial Manager and Chief Engineerof the Zonal Railways entailed strict action against encroachers on the Railway land under Section 4 of the Railway Act, 1989. After phasing out of the 'small' and 'piecemeal wagon' booking of traffic, the purpose for which the plots were allotted was no longer valid and the Railway Administration should have taken back possession of the plots for fresh re-allotment. There were cases of encroachments **(Annexure 2.10)** of railway land, of which some of the significant cases are discussed below:

- In SER, audit had pointed out (September 2015) the unauthorized retention of plots by the unauthorized persons. Subsequently, Kharagpur Division issued (December 2015) a notification in local newspapers to vacate the plots (except the plots where the court has issued an interim order for not to vacate). West Bengal Police Authorities, after publication of the vacation notification, took up (December 2015) the matter with General Manager/SER as any *suomoto* action for forcible eviction may lead to serious Law and Order problems and other adverse consequences. It was also requested to sensitize the field authorities of Railways along with the Railway Protection Force (RPF) to abstain from any such action which may jeopardize the peace and law and order of the area and create embarrassing situation for the State. No records were made available by the Railway Administration to Audit in support of any action taken by them to take up the issue at a higher level with State Government or bringing the issue to the

notice of Railway Board. Senior Divisional Commercial Manager further advised (February 2017) the SMs to collect provisional occupation fee as per existing rate with instruction to include clause that 'any revised payment as per revision of Railway Board, should be paid by the licensees'. However, revised license fee bills were not raised and collected by the Railway Administration.

- In ECoR, a four wheeler parking stand at Cuttack Station (area 1106.70 sqm) was under encroachment of Taxi Owners Association for more than three decades. ECoR Administration allotted the said plot to Sri Mayadhar Biswal in March 2012 @ ₹ 63,600 for three months. Taxi Owners Association filed a case before the Additional Deputy Commissioner of Police-cum-Executive Magistrate/Cuttack under section 144(2) of the Code of Criminal Procedure and the contractor could not occupy the plot and run the parking business. The section was in force for two months, but no action was taken by Railway for licensing the plot after expiry of two months period. Railway's lost an opportunity to earn revenue of ₹ 15.52 lakh during 2012-13 to 2016-17.

- In ECoR, at Brahmapur station, one oil Installation of BPCL (covering an area of 6,253 sqm) was licensed before independence. The plot was used in connection with railway working i.e. supply of petroleum products through tank wagons and unloading it in the Depot. After stopping of POL traffic (from October 2014), the Railway served notice to BPCL authorities (February 2015) to stop operation, dismantle the assets and surrender the land due to safety reasons i.e. electrification of crossovers to Line No.5 at Visakhapatnam end of Brahmapur station. Also, the land allotted to BPCL was no longer used in connection with railway's working. BPCL remitted (April 2016) license fee of ₹ 6.91 lakh to Railway for 2016-17 but Zonal Headquarter instructed Divisional office not to receive cheque and evict BPCL from Brahmapur station under Public Premises (Eviction of Unauthorized Occupants), Act 1971. Though the Railway Administration terminated the license of BPCL in July 2016 and served seven days' notice in August 2016, said the plot was not vacated by BPCL as yet.

- In NR, the parking contractor at Ghaziabad station of Delhi Division had occupied the space in excess of allotment. However, the Station Manager did not convey the position of excess occupation of space by the parking contractor to Delhi Division.

- In NFR, one plot measuring 2.68 acres was licensed (in year1960) to Oil and Natural Gas Corporation (ONGC) at Sibsagar Town of Tinsukia Division. From year 2001, ONGC authority refused to pay license fee (for 2.68 acres land) on the ground that they were possessing land measuring only 1.32 acres instead of 2.68 acres. They had also contended that Railway was occupying an area of 0.54 acre and 0.82 acre remained under unauthorized occupation. Even after 16 years, the issue has not been resolvedas yet and ONGC was paying the license fee for 1.32 acres land. At New Jalpaiguri station, circulating area

and car parking area, total 264 nos. of cases of unauthorized encroachment measuring 1.0753 ha area came into notice against which notice has already been served in April 2017 by the Railway Administration. However, the encroachment has not been removed as yet.

Encroachments renders large areas of railway land unusable for any commercial exploitation/use by the railways and encourages misuse of railway land by encroachers.

2.2.10 Commercial plots under litigation

There were cases of litigations arising due to retrospective application of ordersand fixation of licence fee at higher rate etc. Inselected five Zonal Railways viz. SER, ECoR, NER, NR and SCR, there were 51 court cases involving commercial plots, cycle stand and parking space at the beginning of 2014-15. During review period (2014-15 to 2016-17), 14 more court cases (SER-12, NR-1, SR-1) were added. Out of two court cases (in SER) settled, one case was decided against the Railway (April 2016) in District Court, Howrah but the Railway Administration had not filed review petition at higher Court (till March 2017). 63 court cases were pending at the end of March 2017; the oldest being of 1986 pertaining to ECoR. **Annexure 2.11**

Review of the records revealed that the Zonal Railway Administrations were not active in pursuig the Court cases, filing the cases at higher court against the decision of the lower court or early settlement of the court cases.

Due to non-settlement of the court cases, the plot holders were earning revenues/enjoying benefits from the plots without paying any license fee to the Railways.

2.2.11 Conclusion

While a large area of land in the railways falls under the jurisdiction of the Engineering Department, Commercial Department is responsible for managing the commercial plots and parking spaces near stations. Audit observed that there was no land management cell for commercial plots managed by Commercial Department at any level. The existing land management cell under the Engineering Department was not dealing with or having records of commercial plots. Land records were poorly maintained and not digitized. There was no database for land under the control of Commercial Department. Audit further observed that there were differences in opinion in management of data of commercial plots. While SER Administration opined that a separate land cell needs to be set up by the Commercial Department for management of commercial plots and land records digitized for proper management, NER and SCR Administratyions contended that the plosts are maintained by the Engineering Department, hence the data of land, land records, license registeres etc. should be maintained by the Engineering Department. The mechanism of Standing Committee to examine fresh cases of licensing of commercial plots and monitoring them was not being used effectively in the selected Zonal Railways.

The records related to licensing of land, fixation of license fee, renewal of license agreement and recovery of license fee etc. were not available with the Railways in respect of a significant number of stations to monitor timely collection of license fee from the licensees. The Station Managers did not ensure proper maintenance of records, timely realisation of rent and timely reporting of events to the divisional office in the stations test checked by Audit. License agreements were not executed and renewed timely and information about the land available under the jurisdiction of the Commercial Department available with the railways was incomplete. License fee had not been revised based on market value of land.

Significant number (33 *per cent*) of plots were occupied by persons other than the original allottee. Large numbers of plots were unauthorised occupied by persons/firms. Commercial plots were illegally transferred by original allottees to others by way of sale, donation deed, power of attorney etc. During joint inspection, permanent structures were found built on commercial plots by the allottess/unauthorized persons.The unauthorized occupants were using plots for commercial/private purposes and also not paying license fee to the Railway Administration.Despite instructions of Railway Board, Zonal Railways neither took action to give one time opportunity for change of name of allottees nor auction the same. Railway plots were being used for purposes other than the purpose for which it was allotted initially to the plot holders. Railways had not undertaken any survey to assess the present use of the plots and take action to cancel the land allotment. The plot holders were also not paying license fee in a number of cases and huge amount was outstanding in the selected Zonal Railways.

As regards parking lots, railways did not execute agreements promptly in many cases and also did not enter into agreement in some places. The contractors were managing the parking lots in an un-professional manner and the railways were not able to ensure that they provide service as per the agreements and recover dues from contractors. In a number of stations, though the State police was running the pre-paid auto/taxi booths, Railway Admirations did not take suitable action/pursue the matter with the authorities concerned for collection/sharing of parking charges for running of pre-paid booths. Due to non-settlement of the court cases, the plot holders were earning revenues/enjoying benefits from the plots without paying any license fee to the Railways.

2.2.12 Recommendations

1. ***Railways may consider putting in place a mechanism for management of commercial plots, wherein comprehensive survey and demarcation of commercial plots, maintenance of records and data base of land records and their digitization, examination of cases of licensing and their monitoring is ensured. This may be done either by forming an exclusive Land Cell for management of commercial plots or the Land Cells which***

manage the plots under the jurisdiction of Engineering Department may be entrusted with the responsibility of managing them.

2. ***Railways may strengthen the monitoring mechanism for licensing of land, fixation of license fee, renewal of license agreement and recovery of license fee, settlement of the court cases, maintenance of records etc. at Divisional and Zonal levels.***
3. ***Zonal Railways may take action to get vacated and occupy the commercial plots which are not occupied by the original allottees and execute fresh agreements for recovery of license fee at rates prescribed by the Railway Board, within a fixed time frame as land is precious resource which Railway can ill-afford to use sub-optimally.***
4. ***Railway may strengthen the monitoring mechanism and ensure that parking lots are managed professionally following the terms and conditions of the agreements by the contractors.Railways may also take suitable action to take up matter with the authorities concerned for collection/sharing of parking charges for pre-paid booths being managed by State police or GRP.***

2.3 Southern, Northern, South Central, North Central and South Western Railways: Loss of revenue of ₹ 13.24 crore due to carrying of freight traffic through weaker sections

When traffic is booked via routes which involve two or more of different types of routes viz. CC+4, CC+6 and CC+8, the chargeable weight will be the permissible carrying capacity of the route for which permissible carrying capacity is the most restrictive i.e. rates applicable for normal, CC+4 or CC+6 route, as the case may be. Audit observed that on a number of routes, major portion of the route was upgraded, and a small portion was yet to be upgraded, as a result of which, the freight was being charged with rate applicable to the lower load. In this regard, SR Administration sent incomplete proposals to Railway Board by omitting part of sections, which were already fit for carrying higher loads. This led to charging of coal traffic carried on these routes at rates applicable for lower loads and led to loss of ₹ 7.81 crore during 2016-17. The loss would continue till such time the above sections are notified for CC+8 loading. Further, food grain traffic was booked from other Zonal Railways to SR, wherein small portion of the routes were yet to be upgraded to CC+6. By failing to take timely action to strengthen the weaker sections to CC+6 route, railways incurred a loss of ₹ 5.43 crore during 2013-14 to 2016-17. There is an urgent need to upgrade these weaker sections so that not only higher revenue is generated, the movement of goods also becomes faster.

Consequent to a pilot project (2006) to allow running of freight trains on CC+8 and CC+6 routes, Railway Board extended the validity of the project and notified (June 2007) certain routes of Indian Railways to transport commodities in goods

trains having wagons loaded up to four/six/eight tonnes[69] in excess of their marked carrying capacity (CC). Further, Railway Board instructed (June 2008) that in cases when traffic is booked via routes which involve two or more of different types of routes viz. CC+4, CC+6 and CC+8, the chargeable weight will be the permissible carrying capacity of the route for which permissible carrying capacity is the most restrictive i.e. rates applicable for normal, CC+4 or CC+6 route, as the case may be. In March 2015, Engineering Directorate of Railway Board forwarded a list of routes identified for CC+6 to CC+8 by the Traffic Directorate and instructed Zonal Railways to check the suitability of track of left over route for higher axle load and to forward the action plan for upgradation of routes suitable for higher axle load by 31 March 2015.

Audit reviewed the compliance of above instructions in SR and observed that in a number of routes, major portion of the route was upgraded, and a small portion was yet to be upgraded, as a result of which, the freight was being charged with rate applicable to the lower load. Audit analysis is detailed in the subsequent paragraphs.

A. Traffic booked and moved within Southern Railway (SR)

Large scale Coal traffic in BOBRN/BOXN wagons is booked from Karaikal Port Private Limited siding (KIKP) to four destinations[70] within SR, for a distance of 132.5 kms (Puduchatiram) and 339.56 kms (Mettur Dam). The route is predominantly CC+8 route, (70.67 *per cent* to 93.44 *per cent*) except for a short distance of 15 to 89 kms (comprising of 6.55 *per cent* to 29.32 *per cent* of total length of the route). As a result, despite most of the route being CC+8, due to a small distance being CC+6, the rate charged is being restricted to rate applicable to the CC+6. The details are given below:

Table 2.13 – Traffic booked and moved within SR

Section	Length of section on which traffic is booked (in kms)	Route
Karaikal Port Pvt Ltd siding – Tamilnadu Power Ltd siding, Puduchatiram	Total length 133	
Karaikal Port Pvt Ltd siding – Thiruvarur	34	CC+8
Thiruvarur – Mayiladuturai	39	**CC+6**
Mayiladuturai - Tamilnadu Power Ltd siding, Puduchatiram	60	CC+8
Karaikal Port Pvt Ltd siding – Tamilnadu Newsprint and Papers Ltd siding, Pugalur	Total length 229	
Karaikal Port Pvt Ltd siding – Karur	214	CC+8
Karur – Tamilnadu Newsprint and Papers Ltd siding, Pugalur	15	**CC+6**
Karaikal Port Pvt Ltd siding – Chemplast Sanmar siding, Metturdam	Total length 340	
Karaikal Port Pvt Ltd siding – Karur	214	CC+8

[69] CC+4/CC+6/CC+8

[70] Tamilnadu Power Company Limited Siding, Puduchatiram (PUCS), JSW Steel Limited siding, Mechery Road (MCSI), Tamilnadu News Print Siding, Pugalur (PGRS) and Chemplast Sanmar Limited siding, Mettur Dam (MTDC)

Table 2.13 – Traffic booked and moved within SR		
Section	**Length of section on which traffic is booked (in kms)**	**Route**
Karur – Magnesite junction	89	**CC+6**
Magnesite junction – Chemplast Sanmar siding, Metturdam	37	CC+8
Karaikal Port Pvt Ltd siding (KIKP) – JSW Steel siding, Mecheri Road (MCSI)	Total length 328	
Karaikal Port Pvt Ltd siding – Karur	214	CC+8
Karur – Magnesite junction	89	**CC+6**
Magnesite junction – JSW Steel siding, Mecheri Road	25	CC+8

During examination of records, Audit noticed that the above sections notified as CC+6 were already fit to carry CC+8 load. It was seen that

(i) While sending the proposals to Railway Board (August 2015) SR had recommended only Tiruchchirappalli - Karur section (69.62 kms) instead of Tiruchchirappalli-Karur-Tamilnadu Newsprint and Papers Ltd siding, Pugalur - Erode section (143.94 kms) for running of CC+8 loads, despite the fact that whole Tiruchchirappalli - Erode section was fit for CC+8 load (as proposed by SR in February 2015 in response to the Railway Board's letter of January 2015). Because of the omission of Karur - Tamilnadu Newsprint and Papers Ltd siding, Pugalur section (15 kms) by SR, Railway Board notified (March 2016) only Tiruchchirappalli - Karur section for running CC+8 load.

(ii) Karur - Magnesite junction section (88.53 kms), which forms part of Nagercoil - Magnesite section (458.25 km) was also already fit for running CC+8 load at the time, when SR forwarded the proposal to Railway Board (August 2015). A small portion of five kms between Dindigul-Madurai forming part of Nagercoil - Magnesite section did not meet the criteria for higher axle load and hence Railway Board did not notify the entire section for running CC+8 load. Instead of proposing the entire Nagercoil - Magnesite section which did not meet the condition for higher axle load for a smaller section of five kms between Dindigul-Madurai, SR should have proposed Karur - Magnesite junction (89 kms) section which was already fit for CC+8 load.

(iii) Coal traffic from Karaikal Port Private Limited siding is carried via Thiruvarur - Mayiladuturai branch line to Tamilnadu Power Ltd siding, Puduchatiram which was also fit for running CC+8 load (March 2015). While sending the proposals to Railway Board (August 2015) SR failed to include Thiruvarur-Mayiladuturai (39 km) section.

Audit reviewed the traffic in the above sections for 12 months from April 2016 to March 2017 from Karaikal Port Private Limited siding to the four destinations on SR and found that traffic was charged with rates applicable for CC+6 load, despite the fact the traffic was carried through CC+8 load for major part of routes. As a result, SR lost the opportunity to earn revenue of ₹6.51 crore during the year 2016-17.

Another section, Vadalur-Uttangalmangalam (13 kms), dealing with coal traffic, was also fit for running CC+8 load. While sending proposals to Railway Board (August 2015), SR did not include this section for running CC+8 load, which resulted in the section being categorized as CC+6 route and SR lost the opportunity to earn revenue of ₹1.30 crore during the year 2016-17.

From the above, it can be seen that SR Administration sent incomplete proposals to Railway Board by omitting part of sections, which were already fit for carrying higher loads. This led to charging of freight carried on these routes at rates applicable for lower loads. As a result, SR incurred a loss of ₹ 7.81 crore (₹ 6.51 crore + ₹ 1.30 crore) during 2016-17 and loss would continue till such time the above sections are notified for CC+8 loading.

B. Traffic booked and received by SR from and to other Zonal Railways

Regularly food grain is transported from stations in Northern part of India to stations in Kerala and Tamil Nadu area and fertilizer traffic is moved from SR to stations on SWR. The inward traffic to SR was moved via CC+6 routes for major part of the distance except for a short distance in ten sections over NR, NCR, SCR and SWR where they are moved via CC+4 route ranging between 14.02 kms and 188.29 kms.

Table 2.14 – Traffic booked and received by SR from and to other Zonal Railways

Section	Railway	Length of section on which traffic is booked (in kms)	Route
Bodhan - Angamali for Kaladi	SCR	Total length 1391	
Bodhan -Jankampet		21	CC+4
Jankampet - Angamali for Kaladi		1370	CC+6/CC+8
Guru Harsahai – Angamali for Kaladi	NR	Total length 3216	
Guru Harsahai – Firozepur City		36	CC+4
Firozepur City - Angamali for Kaladi		3180	CC+6/CC+8
Mainpuri – Coimbatore North	NCR	Total length 2533	
Mainpuri – Shikohabad		48	CC+4
Shikohabad - Coimbatore North		2485	CC+6/CC+8
Kota – Angamali for Kaladi	SWR	Total length 2526	
Kota – Miraj		1370	CC+6/CC+8
Miraj -Londa		188	CC+4
Londa - Angamali for Kaladi		968	CC+6/CC+8
Ladhuka – Mulagunnathukavu	NR	Total length 3173	
Ladhuka -Fazilka		15	CC+4
Fazilka - Mulagunnathukavu		3158	CC+6/CC+8
Faizabad – Palghat	NR	Total length 2644	
Faizabad – Chilbila		95	CC+4
Chilbila – Partapgarh		98	CC+8
Partapgarh – Allahabad		59	CC+4
Allahabad - Palghat		2392	CC+6/CC+8
Jalalabad – Palghat	NR	Total length 3111	
Jalalabad – Firozepur City		53	CC+4
Firozepur City – Palghat		3058	CC+6/CC+8
MCF Siding, Panamburu-Solapur	SWR	Total length 968	
MCF Siding, Panamburu – Vijayapura		858	CC+6/CC+8

Table 2.14 – Traffic booked and received by SR from and to other Zonal Railways			
Section	**Railway**	**Length of section on which traffic is booked (in kms)**	**Route**
Vijayapura – Hotgi	SWR	94	CC+4
Hotgi - Solapur		16	CC+8
MCF Siding, Panamburu – Shivamogga Town		Total length 414	
MCF Siding, Panamburu – Birur		351	CC+6/CC+8
Birur – Shivamogga Town		63	CC+4

From the above table, it can be seen that these routes are predominantly CC+6/CC+8 route, (85 *per cent* to 99.5 *per cent*) except for a short distance of 15 to 188 kms (comprising of 0.47 *per cent* to 15.22 *per cent* of total length of the route). As a result, despite most of the route being CC+6/CC+8, due to a small distance being CC+4, the rate charged is being restricted to rate applicable to the CC+4. As a result the entire traffic consisting of BCN wagons was carried and charged less by two tonnes per wagon resulting in loss of revenue to the tune of ₹ 5.43 crore to Railways for the years 2013-14 to 2016-17.

Action taken by the Railway Administration to upgrade these ten sections to CC+6 route was reviewed over three (NR, SCR & SWR) Railways and it was noticed that

- Three sections of NR viz., Guru Harsahai-Firozepur City, Ladhuka-Fazilka and Jalalabad-Firozepur City had already been upgraded during 2010-12 and made fit for running CC+6 loads, but were not included in CC+6 route for charging traffic.
- In two sections of NR viz., Faizabad-Chilbila and Partapgarh-Allahabad, no proposals for upgradation of the section to CC+6 route were mooted and friehgt trains were still being run carrying CC+4 loads. Further, constraints for not upgrading were not on record.
- In two sections of SWR, Miraj-Londa, Birur-Shimoga Town works for upgradation has been sanctioned, but not yet started and in case of Vijayapura-Hotgi section, proposal for upgradation is at divisional level only.
- In one section of SCR viz., Bodhan-Jankampet the upgradation works were sanctioned in 2015-16 and work is in progress.

From the above, it can be concluded that till such time the above sections are upgraded to CC+6 routes, the traffic will continue to be charged with lower loads and the loss of revenue would continue. By taking timely action to strengthen the weaker sections to CC+6 route, the loss of ₹ 5.43 crore could have been avoided. In reply, SR stated (February 2016) that as the weaker sections fall under their jurisdiction of SWR, action was required to be taken by SWR Administration only.

Thus, there is an urgent need to upgrade these weaker sections so that not only higher revenue is generated, the movement of goods also becomes faster.

The matter was brought to the notice of Railway Board (18 September 2017); their reply was awaited (28 February 2018).

2.4 North Central Railway (NCR): Incorrect entry of train timing of terminating trains in Integrated Coaching Management System (ICMS) led to compromise in data integrity

Railways entered the arrival timing of terminating trains at Allahabad station incorrectly in the ICMS. This led to compromise in data integrity. As the information fed into ICMS is reflected in National Train Enquiry System (NTES), the incorrect entries caused inconvenience to the passengers by showing wrong timings of arrival of trains in Allahabad station. Similar position i.e. incorrect data entry of arrival/ departure time of trains may also prevail at other stations. Railways Board may issue strict instructions to all the Zonal Railways to ensure correct entry of the arrival/departure timings in NTES, (either through direct entry in NTES or through entry in Control Office Application or through data loggers) so that the passengers get accurate information on arrival/departure of trains. There is a need for evolving a mechanism of supervisory checking of certain percentage of data entered in NTES with reference to the data in the Train Signalling Register/ Control Office Application/data loggers or through other means.

Data related to train/coach movement, their arrival/departure, etc. is captured in ICMS manually. ICMS also utilized data captured/updated from other applications (like Control Office Application, Coaching Operation Information System etc.) through manual processes/means. This data is finally reflected in National Train Enquiry System (NTES) where passengers can see arrival and departure timings of the trains in real time.

Audit analysed the data of arrival/departure of three trains (Allahabad Duronto Express-12276, Prayag Raj Express - 12418, Jaipur Allahabad Express - 12404) captured in ICMS and noticed incorrect data entry for arrival of these trains at Allahabad station. Audit examined the data from two tables[71] of Punctuality Analysis Module (PAM) of ICMS in respect of the above three terminating trains at Allahabad Station and the last but one station (Fatehpur station) for the year 2016-17 for analysis.

During the year 2016-17, Train no. 12418, 12404, and 12276 ran 354, 343 and 144 days respectively. It was seen that during 2016-17, train No. 12418, 12404 and 12276 was late at last but the terminating station (Fatehpur) in excess of 15 minutes on 342, 325 and 128 days. Out of these, the trains were late by more than 15 minutes at terminating station (Allahabad) on 166, 281 and 75 times and on 176, 44 and 53 days respectively these trains reached at terminating station where delay was less than 15 minutes.

The distance between last but terminating station (Fatehpur) and terminating station (Allahabad Junction) is 116 kms and maximum permissible speed of the

[71]Table no. 1(Train Monitoring), 2 (Punctuality Performance)

train as per Working Time Table-2016 is 130 kmph. A minimum 53 minutes is required to cover this distance.

Analysis of data in case of 354, 343 and 164 days during 2016-17 were carried out by Audit for assessing the data integrity for correctness of entry of arrival time at the terminating station (Allahabad junction). The assessment was made against the criteria of minimum period of travel of 53 minutes between Fatehpur and Allahabad. It was noticed that

- The time taken to travel from Fatehpur (last but on terminating station) to Allahabad Junction (terminating station) was less than 53 minutes on 25, 29 and 31 days for train no. 12418, 12404 and 12276 respectively with minimum time being reflected at (-) 25 minutes on 10/4/2016 for 12404, 17 minutes on 15/03/2017 for train no.12418 and 17 minutes on 9/7/2016 for Train no. 12276. These trains took less than thirty minutes on 3, 3 and 7 days out of these 25, 29 and 31 days respectively. The potential reasons for covering the distance of 116 kms in less than the possible 53 minutes was erroneous data entry or over speeding.
- During cross check from data of running train in ICMS, it was found that
    - Train no.12418 (Prayag Raj Express) on 7/3/2017 reached Fatehpur at 06:12 hours, Subedarganj at 07:45 hours and Allahabad at 06:50 hours. On that day Punctuality Performance Table showed as RT (right time arrival at Allahabad).
    - Train no.12404 (Jaipur Allahabad Express) on 10/4/2017 reached Fatehpur at 05:56 hours and Allahabad at 05:31 hours. On that day, in Punctuality Perforamnce Table, it was shown as 36 minutes delay in arrival at Allahabad.
    - Train No. 12276 (Allahabad Duronto Express) on 09/7/2016 reached Fatehpur at 05:53 hours and Allahabad at 06:10 hours. On that day in Punctuality Performance Table, it was shown as RT (right time arrival at Allahabad). For a train to travel 116 kms in 17 minutes, the resultant speed would be 409 Kms/per hour.

The above analysis is an indication of incorrect data entry in ICMS. As the information fed in ICMS is also reflected in NTES, it leads to communication of wrong information to the passengers through NTES and inconvenience to railway passengers. In response to the audit observation, Allahabad division took action and issued directions for feeding of arrival/departure information into NTES at terminating stations. Audit test checked the correctness of arrival and departure timings at Kanpur and Allahabad stations in February 2018. In Allahabad station the data is correctly being entered in NTES and almost identical to data in Train Signalling Register at Allahabad station. Also, the timings of Kanpur Central station of Allahabad division were being entered into application system through data loggers and almost identical to data in Train Signalling Register at Kanpur Central station.

Similar position i.e. incorrect data entry of arrival/ departure time of trains may also prevail at other stations. Railways Board may issue strict instructions to all the Zonal Railways to ensure correct entry of the arrival/departure timings in NTES, (either through direct entry in NTES or through entry in Control Office Application or through data loggers) so that the passengers get accurate information on arrival/departure of trains. There is a need for evolving a mechanism of systemic and supervisory check of data entered in NTES with reference to the data in the Train Signalling Register/ Control Office Application/data loggers or through other means.

The matter was brought to the notice of Railway Board (22 November 2017); their reply was awaited (28 February 2018).

2.5 North Central Railway (NCR): Under-utilisation of 3rd line between Mathura and Palwal section of Agra Division

Agra Division of NCR has constructed a 3rd line between Mathura- Palwal for smooth operation of traffic over the section due to saturation of UP and Down Line. After incurring the expenditure of ₹412.65 crore (till June 2017), the newly created 3rd line could be utilised only to the extent of 52 per cent despite line capacity utilisation being in excess of 100 per cent on both UP and Down lines. Smooth operation through 3rd line required yard remodelling work which was not included in detailed estimate. Operational constraints such as connectivity with platforms of 3rd line at Mathura junction, Yard remodelling at Kosi Kalan station also remained to be addressed. Under-utilisation has led to loss of revenue potential of ₹ 32.76 crore between August 2015 and August 2017 with continuing loss of ₹16.38 crore per annum. The non-optimal utilisation of 3rd line adversely impacted train punctuality and has caused inconvenience to passengers.

Mathura - Palwal section is known as busiest trunk A route connecting the Chatrapati Shivaji Terminus Mumbai (CSTM) and New Delhi main route. This section deals with the freight traffic consisting of major commodities including Iron & Steel, food grains, fertilizer, cement, general goods etc. Due to existence of 3rd and 4th lines in section up to Palwal, trains going from New Delhi to Mathura and onward, suffer detention in beyond Palwal[72].

Work of Mathura-Palwal 3rd line (84 kms) was completed in two part viz., Mathura-Bhuteshwal (3.48 kms) and Palwal – Bhuteshwar (81 kms).

Mathura-Bhuteshwar 3rd line work was sanctioned in October 1999 at a total cost of ₹ 4.24 crore which was completed in November 2001 and was opened for traffic in December 2001. The executing agency of Palwal -Bhuteshwar 3rd line was Rail Vikas Nigam Limited (RVNL). This work was sanctioned by Railway

[72] Only third line is existing beyond Palwal to Mathura

Board during 2005-06[73]. Audit noticed that original sanctioned (abstract) cost of project was ₹ 242.79[74] crore at the time of preliminary survey (July 2003).

But, during Final Location survey conducted by RVNL after more than two years of preliminary survey, the estimated cost increased to ₹ 347.90 crore. The target date for completion of this project was five years from the date of sanction of the project. This project was completed in November 2012. The section was opened for operation in parts between March 2011 and August 2015. Total expenditure incurred on this project (up to June 2017) was ₹ 412.65 crore. The cost of project increased by 25.31 *per cent* in comparison to sanctioned cost (July 2003) and by 18.61 *per cent* in comparison to estimated cost during final location survey.

Audit assessed the reasons for delay in opening of section for traffic and noticed that major deficiencies such as non-provision of relays, non-submission of drawings/documents, inconsistencies in the microlock system wiring at site and corresponding drawings etc. in signalling work in Palwal-Hodal and Bhuteshwar-Chhata were reported (April to Nov 2012) by Senior Divisional Signal and Telecommunication Engineer/Agra. Accordingly, the 3rd line could not be opened for passenger traffic.

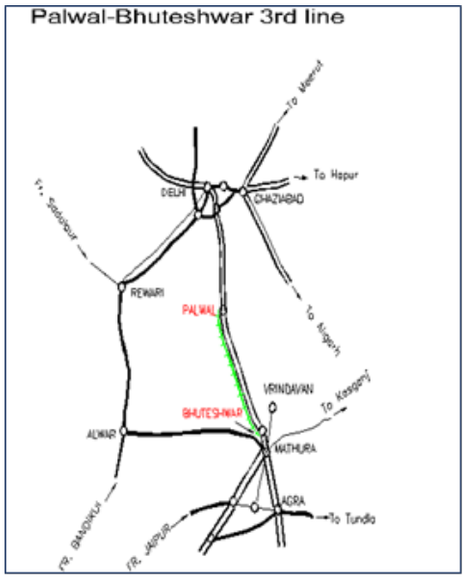


Figure 2.1: Map of Mathura-Palwal 3rd line

Audit further noticed that the 3rd line could not be utilised optimally, even after two years of opening the section for traffic. Audit reviewed the records of running of trains through different lines in Mathura - Palwal section of Agra division and noticed that during the year 2016-17, 19,821 trains were run, out of which, only 3,119 trains (15.73 *per cent*) were run through the 3rd line. Line wise details of running of trains during 2016-17 were as follows:

Table 2.15

Total number of train runs in Palwal - Mathura Section - 19,821		
UP line: Palwal - Mathura	***DN line: Mathura - Palwal***	***3rd line Mathura - Palwal***
10,319	6,383	3,119
52.06 *per cent*	32.20 *per cent*	*15.73 per cent*

The line capacity utilisation of all the three lines for Mathura – Palwal section was 108 *per cent* during the period 2015-16 to 2016-17. Individual line wise

[73] Railway Works Programme 2005-06 (item no.13)
[74] Cost of project shown in Preliminary Engineering cum traffic survey (PET) for 3rd line between Palwal and Bhuteshwar (July 2003)

utilisation of line capacity was not made available to Audit. Based on the above data, audit assessed the utilisation of the three lines at 168.48 *per cent* for UP line (Palwal-Mathura), 103.68 *per cent* for Down line (Mathura-Palwal) and 51.84 *per cent* for the third line. The operation of 3,119 trains on the 3rd line included 1,096 trains in the UP direction and 2023 trains in DN direction. Thus, 3rd line between Mathura-Palwal was not optimally utilised for running of trains. The load of movement of traffic was not evenly distributed amongst UP, DN and 3rd line and ranged from 51.84 *per cent* to 168.48 *per cent* with a mean value of 108 *per cent.*

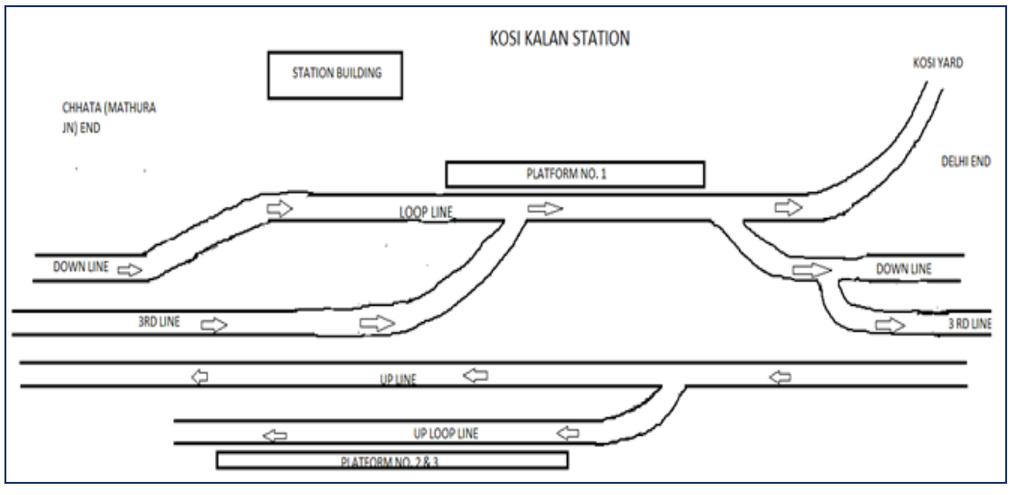


Figure 2.2: Map of Kosi Kalan station

Audit analysed the reasons including constraints for under-utilisation of the Mathur-Palwal 3rd line. Audit observed that that these were within the control of railway administration and included the following:

- There is only one platform available at Kosi Kalan station[75] for handling down trains coming from Chata station from Down main line and UP & Down trains from 3rd line.
- Loop line is not available for crossing / precedence of train on 3rd line in Kosi Kalan Yard.
- Goods yard of Kosi Kalan Yard is also connected from the down loop line, being utilized as 3rd line. This results in detention of train (both UP & Down) at outside station of Kosi Kalan due to deficient laying and connectivity of line at Kosi Kalan.
- After commissioning of 3rd line between Chata-Kosi Kalan and Kosi Kalan-Hodal, Up and Down trains are being detained outside Kosi Kalan because of non- availability of 3rd line yard at Kosi Kalan station.

[75] Kosi Kalan station is located in Bhuteshwar-Palwal section between Chata and Hodal stations

- Besides, Line Road Learning[76] of crew of 3rd line is also incomplete. At present, crew from Jhansi Division and crew from Northern Railway and West Central Railway have not completed LRD.
- In December 2012, General Manager/NCR raised the matter of commissioning of yard remodelling including 3rd line at Kosi Kalan. In response, RVNL clarified that this yard remodelling work involved construction of new station building, new panel etc., along with additional track and civil works. RVNL also stated that additional work of yard remodelling of Kosi Kalan yard was not covered under sanctioned scope of work of 3rd line and could not be executed through this estimate. Consequently, it was decided to execute the yard remodelling work with the fourth line work, as and when sanctioned.
- The work of 4th line between Mathura-Palwal section was sanctioned in 2015-16[77] under Extra Budgetary Resource (EBR). However, this work is at a very early[78] stage. Till completion of the 4th line, the problem of the detention of trains at Kosikalan and Hodal stations would continue.
- The 3rd line is connected to Mathura yard and not to any of the platforms. The 3rd line is adjacent to the down line, which is in the middle. Review of data of movement of 3119 trains on 3rd line where 1096 trains are in Up line direction 2023 trains are in Down line direction revealed that cross over of trains from Up line to 3rd line and *vice-versa* requires crossing over the down line, which coupled with absence of link of 3rd line to platform at Mathura restricts use of 3rd line for trains in upward direction as well as operation of passenger trains with halt at Mathura station.

As such, due to non-provision of additional cross over in existing loop line and non-availability of 3rd line yard at Kosi Kalan station, the placement and removal of rakes at Kosi Kalan and Hodal station takes almost one and half hour. This hampers smooth movement of trains through this section. Further, despite identification of defects in planning relating to Kosi Kalan yard remodelling as early as December 2012, impacting utilisation of the 3rd line, no action for addressing the deficiency has been taken. These identified constraints should have been taken up as a Material Modification under Para 1110 of the Indian Railway code for the Engineering Department. On the contrary, Railway is going ahead for construction of 4th line in the section.

Audit assessed the financial impact on under-utilisation of newly created 3rd line in Mathura-Palwal section. Assuming the optimal utilisation of 80 *per cent* and considering the expected earnings for first year as ₹ 58.50 crore (as per sanctioned detailed estimate, April 2006), Audit assessed that during the two years period between August 2015 and August 2017, Railways sustained loss of

[76] The Crew who has not worked in the section are required to undertake Line Road Learning to acquaint themselves about the section

[77] Work Programme 2015-16 (item no.14)

[78] The contracts for execution of 4th line of Mathura-Palwal section was awarded during April 2016 to April 2017

revenue potential of ₹ 32.76 crore[79]. Further till, optimum utilisation, Railways will continue to lose potential revenue of ₹ 16.38 crore annually.

Railways need to take up the work of Kosi Kalan yard remodeling on priority basis for smooth movement of traffic in this section and optimal utilisation of newly created 3rd line between Mathura-Palwal.

The matter was brought to the notice of Railway Board (20 December 2017); their reply was awaited (28 February 2018).

2.6 Central, North Central, Eastern, South East Central, Northern and North Eastern Railways: Loss due to Non/short-realization of Way Leave Charges (WLC) from parties/firms

Way leave facilities/easement rights on Railway land involve occasional or limited use of land by a party for specified purpose like passage etc. without conferring upon the party any right of possession or occupation of the land and without any way affecting the Railway's title, possession, control and use of land. Permission for way leave should be granted in genuine and un-avoidable cases after execution of proper agreements. Thirteen railway divisions under six Zonal Railway Administrations did not comply with the guidelines laid down by the Railway Board with regard to granting of way leave facilities/easement rights. This resulted in loss due to non/short realization of way leave charges of ₹ 65.20 crore from 954 parties/firms for the period from year 1998 to March 2017. These Railway Divisions also failed to execute/ renew agreements in a number of cases with the parties/firms for allowing them to avail the way leave facilities/easement rights.

As per rules[80] way leave facilities/easement rights on Railway land involve occasional or limited use of land by a party for specified purpose like passage etc. without conferring upon the party any right of possession or occupation of the land and without any way affecting the Railway's title, possession, control and use of land. Permission for way leave should be granted in genuine and un-avoidable cases after execution of proper agreements.

Railway Board issued (November 2001) comprehensive instructions[81] on way leave facilities/easement rights on railway land. According to these instructions, Way Leave Charges (WLC), in majority of cases like, pipe line crossings, cable crossings passage/roads for vehicles etc., are to be recovered in advance for a block of ten years after which the next instalment of these charges becomes due. While calculating the advance equivalent to 10 years annual charges, annual increase of 10 *per cent* in land value would be assumed. At the time of calculation of WLC for the next ten years, prevailing land rates have to be obtained from the Revenue authorities and suitable adjustments made. Therefore, it is imperative that the renewal of way leave agreements is taken up

[79] (80 per cent -52 per cent) x ₹58.5 crore X 2 years (between August 2015 to August 2017)
[80] Para 1033 of Indian Railway Code for Engineering Department
[81] Railway Board's letter No. 97/LML/24/3 dated 27/11/2001

well in advance. WLC was to be revised after ten years at the time of renewal of agreement as per the revised rates of license fee, if any.

Audit review of records of thirteen railway divisions under six Railway Zones conducted during the period April 2015 to May 2017 revealed that an amount of ₹ 65.20 crore was outstanding as on 31 March 2017 against 954 parties/firms towards WLC who were granted way leave facilities during the period from the year 1998 onwards **(Annexure 2.12)**. Scrutiny further revealed that in a number of cases, the Railway Administrations failed either to get the agreements executed or renewed with the parties/firms in time as was required in the policy guidelines of Railway Board issued in November 2001. Zonal Railway wise audit observations are given below.

Central Railway (CR) - During the review (May 2017) of records relating to realization of way leave charges in Central Railway, Audit observed that

- In Mumbai and Bhusawal Divisions, an amount of ₹ 95.58 lakh[82] was outstanding as on 31 March 2017 towards way leave charges against 408 parties/firms which was yet to be realized.
- In Nagpur Division, an amount of ₹ 2.53 crore was outstanding against 26 parties/firms.
- In Pune Division, though way leave charges were recovered from all 63 parties for the facilities provided to them for first 10 years period i.e. from 2001 onwards, for the next 10 years i.e. from 2011 onwards, bills for way leave charges were not preferred by the railway division, resulting in non-recovery of way leave charges to the tune of ₹ 3.06 crore from 63 parties/firms.
- Agreements which were required to be renewed before the expiry of the initial agreement period were also not renewed as of date.

In reply, CR Administration stated (May 2017) that the proposals for revisions of way leave charges in respect of 17 cases under Nagpur division were received from Engineering Department and were under scrutiny. However, the Railway Administration was yet to renew the agreements and recover the outstanding amount of way leave charges to the tune of ₹ 2.53 crore from the parties as of date. Thus, CR Administration failed to realize way leave charges of ₹ 6.55 crore from 497 parties/firms in four divisions.

North Central Railway (NCR) - Review of records of three Divisions viz. Allahabad, Jhansi and Agra Divisions under NCR revealed that 119 parties/firms were granted way leave facilities and the agreements executed with them from time to time. Out of 119 parties/firms, initial agreements in respect of three firms in Jhansi Division were not executed and in one case at Allahabad Division, the party had renewed the agreement. Further, the copy of renewal agreements, in 116 cases were not found in the records and in remaining two

[82] ₹ 44.18 lakh and ₹ 51.40 lakh for Mumbai and Bhusawal Divisions respectively

cases, the information about renewal of agreements could not be ascertained as the relevant records were not provided to audit.

Audit further noticed that all the three divisions under NCR issued revised WLC bills of ₹ 15.91 crore (₹ 12.00 crore, ₹ 1.78 crore and ₹ 2.13 crore for Allahabad, Jhansi and Agra Divisions respectively) against 119 parties/firms and realized an amount of ₹ 2.25 crore from 15 parties/firms. Recovery of an amount of ₹ 0.67 crore was not feasible from five parties/firms as these firms under Agra Division were not found at their registered address during spot verification conducted by the concerned Railway Administration. Thus an amount of ₹ 12.91 crore (₹ 10.05 crore, ₹ 1.77 crore and ₹ 1.09 crore for Allahabad, Jhansi and Agra Divisions respectively) was outstanding from 97 parties/firms as of March 2017. Audit also noticed that Railway Administration did not take action for termination/discontinuation of the way leave facilities provided to these parties/firms.

Eastern Railway (ER) - Review of records in ER showed that the Howrah division failed to realize outstanding amount of ₹ 1.03 crore[83] from two firms till date. In respect of Asansol Division, an amount of ₹ 87 lakh towards way leave charges was outstanding against 41 parties/firms who continued to avail the way leave facilities. Audit further noticed that in two cases of Asansol Division, the agreement was not executed with the parties/firms.

In reply, ER stated (August 2017) that in case of Howrah Division, demand notice had been served to M/s WBSEDCL in September 2011 and December 2016. A demand notice had also been served to M/s Durgapur Project Ltd. in May 2008 followed by a legal notice in April 2009. However, the outstanding amount of ₹ 1.03 crore was yet to be recovered by March 2017. As regards Asansol Division, Railway Administration stated that an amount of ₹ 81 lakh out of ₹ 87 lakh have been recovered and efforts were being made for recovery of remaining outstanding way leave charges of ₹ 6 lakh.

South East Central Railway (SECR) - Review of records in SECR showed that that Nagpur division failed to realize the way leave charges amounting to ₹ 1.04 crore from 16 parties/firms which became due from 2002-03 onwards. Non-realization of WLC was due to non-revision of agreements and also non-raising of revised bills after the expiry of 10 years of initial agreement period. Audit also observed that the Railway Administration preferred incorrect bills of WLC in 71 cases in Nagpur division which resulted into short realization of ₹ 6.99 lakh that became due from 2013-14 onwards.

Northern Railway (NR) - Review of records in Varanasi in NR showed that that Cantonment Board (CB) Varanasi was utilizing railway land for various purposes at five different locations for the past many years. The exact date of occupation of land by the CB, Varanasi was not found available in the record of the railways. The Railway Administration neither entered into an agreement with the CB,

[83] ₹ 96 lakh from M/s Durgapur Project Ltd and ₹ 7 lakh from M/s WBSEDCL

Varanasi nor realized way leave charges as required under instructions issued by Railway Board in November 2001 for the facilities provided to the CB. Audit noticed that the bills were raised for the period from 2013-14 to 2022-23 in October 2013 and a copy of the agreement was also sent for signature. However, the CB Varanasi did not pay the way leave charges or returned the agreement duly signed to the railway administration. The total amount of way leave charges of ₹ 9.70 crore was due against CB, Varanasi for the period 1998-99 onward for availing way leave facilities at five locations which was unrecovered till March 2017.

Audit further noticed that apart from CB Varanasi, an amount of ₹ 14.11 crore was also outstanding against 174 parties/firms in Lucknow division towards way leave charges for the period from 1998-99 to 2008-09. Further, out of 174 parties/firms, agreements in the case of 55 parties/firms were yet to be executed by the NR Administration and in 119 cases, the renewal of agreements was not done.

In Delhi Division, audit observed that 28 parties/firms were utilizing railway land without paying the requisite charges to the Railway Administration. These parties/firms were served the notices for payment of way leave charges. However, way leave charges of ₹ 14.22 crore was outstanding against 28 parties/firms till March 2017. Only six agreements were renewed out of total 28 parties/firms who were utilizing the railway land for various purposes.

Thus, NR not only failed to realize the total outstanding amount of way leave charges of ₹ 38.03 crore from 207 parties/firms in Lucknow and Delhi divisions, but also failed to execute/renew the agreements with the parties/firms.

North Eastern Railway (NER) - Audit examination (February 2016) of records of Lucknow division disclosed that M/s Indian Potash Limited (Sugar Division) Bahraich was utilizing land for road and open drains/sewage purposes since July 2010. However, no agreement was executed by the North Eastern Railway administration with the company for charging way leave facilities. Despite the request of the company, Railway Administration did not execute the agreement with them for charging the way leave facilities provided. This led to non-recovery of way leave charges amounting to ₹ 5.51 crore for the period from 2010-11 to 2016-17.

In reply, NER stated (August 2017) that though M/s Indian Potash Ltd had requested to railway administration in December 2010, year 2012 and year 2013 for way leave facilities, the process could not be completed due to non-receipt of the area of land and survey report from the firm and the bill could not be raised. They stated that the action was being taken by the division as per the Railway Board instructions of November 2001 and way leave charges of ₹ 60 lakh duly updated on the basis of circle rate of revenue department had been worked out and a proposal was sent for recovery.

However, NER Administration has not been able to execute the agreement with M/s Indian Potash Ltd even after a lapse of more than seven years and has failed to recover way leave charges of ₹ 5.51 crore from the company.

Thus, thirteen Railway Divisions under six Zonal Railways failed to realize ₹ 65.20 crore towards way leave charges from 954 parties/firms for the period from the year 1998 till March 2017. These parties/firms were granted way leave facilities/easement rights for various purposes without recovering the requisite charges as required under Railway Board instructions issued in November 2001. In a number of cases, these divisions also did not comply with the rules/instructions issued by the Railway Board for execution/renewal of agreements with the parties/firms, thereby resulting in non-realization of way leave charges in advance for a block of ten years.

The matter was brought to the notice of Railway Board (12 December 2017); their reply was awaited (28 February 2018).

2.7 All Railways: Unfruitful expenditure of ₹ 62.15 crore due to procurement of microprocessor based LED destination boards

Minister of Railways announced installation of microprocessor controlled LED destination display boards in the Budget speech 2008-09. Thereafter, Railway Board made frequent revisions in specifications for LED based destination boards. These necessitated instructions to Zonal Railways not to initiate bulk purchase. LED destination boards procured in the meantime by the Zonal Railways at a cost of ₹98.26 crore could not be used fully due to failure of Zonal Railways to update the train data base in the Coach Control Unit and to ensure provision of remote control unit at the time of their procurement. As a result, LED destination boards worth ₹62.15 crore remained unutilised.

For optimizing the utilization of coaches many trains have been integrated in rake links. This necessitates frequent changes in the train description depicted on the destination boards of the trains and consequent change of destination boards at platforms and stabling lines. For this, a need for programmable LED based destination boards on coaches arose. These boards show the name of the originating and terminating stations with train number and name and are fitted on both sides of coaches for easy identification by passengers.

Minister of Railways announced installation of microprocessor controlled LED destination display boards in the Budget speech 2008-09. The pilot project on installation of LED based destination boards with local specifications without Global Positioning System (GPS) in about 750 coaches at a cost of ₹ 40,000 each was conducted by South Central Railway (SCR). Based on the trials in SCR, RDSO finalized (April 2008) the specifications[84] of the same. Subsequently, Railway Board accorded sanction (September 2008) for the provision of microprocessor controlled LED based destination boards on 500 coaches in five[85] Zonal Railways.

[84] Specification no. RDSO/2008/CG-02
[85] ER, NFR, NWR, SCR and SR

In August 2009 and April 2010, Railway Board further sanctioned provision of these destination boards in 5000 and 10000 coaches respectively in all Zonal Railways at a cost of ₹ 1.25 lakh each. This cost was not a firm cost as it was based on abstract cost and was stated to be only indicative cost for the guidance of the Railways as expressed (September 2011) by Director Mechanical Engineering (Coaching) Railway Board.

As per the Railway Board's directives of December 2008, all the main line coaches to be manufactured in the Production Units from 2009-10 were to be fitted with remote controlled programmable LED destination boards[86]. Railway Board also instructed (October 2009) all Zonal Railways to procure LED boards, strictly as per the RDSO specification, as these boards were aimed towards uniform application over entire Indian Railways and to ensure interchangeability of coaches over various Coaching Depots/Railways.

With a view to upgrade the functionality of this microprocessor controlled system and use the same for monitoring the coach related parameters in addition to operating LED destination boards, Railway Board reversed (October 2009) its stand and instructed all Zonal Railways to defer bulk procurement till the existing specification was refined. Subsequently, RDSO revised (February 2010) the specification[87]and issued amendment in May 2010. Railway Board instructed (April 2010) all Zonal Railways to procure LED destination boards Based as per the revised specification. Accordingly, Zonal Railways invited offers from the RDSO approved sources and contracts were entered into for 'Supply, installation, commissioning and maintenance of microprocessor based destination board display system'. Railway Board again decided to go in for new specification and instructed (September 2011) Zonal Railways and Production Units to stop the procurement of LED boards immediately. However, by that time orders had been placed by Zonal Railways as per the revised specifications and LED destination boards were delivered till 2013-14.

Audit further observed that in 2012, RDSO attempted product development in this regard, which did not materialize. In April 2015, RDSO again issued a new specification and approached Railway Board for approval. Audit noticed that in July 2016, WR raised issue of duplication of electronic modules used in LED Board and Passenger Information System (PIS) issued by two different directorates of RDSO (PS & EMU and Carriage directorates). Consequently, in November 2016, Railway Board decided to prepare a common specification for PIS and LED based indications, which was still under preparation (March 2017).

Audit reviewed the records pertaining to the decisions taken and fitment of LED based destination boards in passenger coaches during the period during 2008-09 to 2013-14. It was observed that

- As against the planned procurement of LED destination boards for 15500 coaches, various Zonal Railways had procured and fitted LED based

[86] as per the RDSO's specification of April 2008
[87] Specification no. RDSO/2009/CG-1(Revision no.1)

destination boards in 6399 coaches at a total value of ₹ 98.26 crore till 2013-14. Further, frequent alteration of specifications by Railway Board for the stated objective of upgrading the functionality of the system and reversal of instructions to initiate bulk purchase resulted in haphazard execution of this important passenger amenity work. Even after conducting pilot study three years back, Railway Board failed to standardize the specifications and revision in the specification was made a number of times, which resulted in procurement of LED boards for 6399 coaches with the earlier approved specifications. **Annexure 2.13**

- The status of usage of procured LED destination boards over Zonal Railways was also reviewed in audit. It was observed that
  - Out of the total procurement of LED destination boards for 6399 coaches procured by 15 Zonal Railways, 5132 coaches[88] fitted with LED boards worth ₹ 62.15 crore were not functional.
  - South Central Railway reported (December 2013) Railway Board that after completion of maintenance period by OEM, LED destination Boards were going out of order very frequently and sought clarification whether Railway can enter into contract for repair and maintenance of LED boards procured with old specifications.
  - Western Railway reported (January 2014) Railway Board that coaches received from ICF were without LED boards. They informed that though RCF and BEML coaches were received with LED boards, these were without remote control units which was essential for operating them. BEML coaches with LED boards were also received by ECR (21) SECR (11) and WCR (39) without remote units. As such the procured LED destination boards, received without remote control units were lying unutilized and were not functional.
  - Further, Zonal Railways had not uploaded the database of train routes in the coach control unit and remote control unit. Whenever the coaches fitted with LED destination boards underwent the mandatory periodic overhauling, Railways could neither change the train number on coach control unit nor edit the data using remote unit, either by wireless or wired mode. As the coaches after POH were not received at the designated base depot, the train number and the name and the relevant details could not be changed resulting in non-functioning of the LED boards defeating the purpose of introduction of programmable LED destination boards.

In reply, SER Administration accepted the audit observations and stated (January 2017) that rake integrity of LED fitted coaches could not be maintained and coaches were sent to other Divisions/ Depots. As a result, the LED destination boards became non-functional. In reply, SR Administration also stated (February and March 2014) that return of coaches back to base depot was not possible, as

[88](CR-42, ER-311, ECR-21, NCR-150, NER-400, NFR-750, NR-389, NWR-942, SCR-866, SER-322, SECR-230, SR-175, SWR-128, WR-367 and WCR-39)

it may result in unproductive cross movement of coaches. As it is not practical to send back coaches to base depot, remote control unit was essential to change the destination in the LED boards for its optimum functioning. However, without remote control units, these boards could not be used.

Thus, frequent alteration of specifications by Railway Board and reversal of instructions to Zonal railways to initiate bulk purchase resulted in haphazard execution of this important passenger amenity work. LED destination boards procured by the Zonal Railways at a cost of ₹ 98.26 crore could not be used fully due to failure of Zonal Railways to update the train data base in the Coach Control Unit and to ensure provision of remote control unit at the time of their procurement and LED destination boards worth ₹ 62.15 crore remained unutilised. The specifications for LED destination board was yet to be finalised by the Ministry (March 2017).

The matter was brought to the notice of Railway Board (18 September 2017); their reply was awaited (28 February 2018).

2.8 East Central Railway (ECR): Failure to appoint halt contractor at newly opened halt stations led to inconvenience to passengers and leakage of revenue

Railways have failed to appoint a halt contractor authorizing him for sale of tickets from four halt stations viz. Nekpur, Sarsoo, Mohammadpur and Hisua. This has resulted in leakage of revenue on account of ticket less travel from these halts. Railways have also incurred a cost of ₹ 21.03 crore on operating these halt stations up to March 2017.

As per the codal provision[89], while opening new halts, Railway Administration must be satisfied that the provision of halt will not involve the Railway in leakage of revenue on account of ticket less travel. The working of halts should ordinarily be entrusted to reliable contractors permanently living in the locality. An agreement in the prescribed form should be executed by the contractor with the Railway Administration.

In regard to opening of halt stations, Railway Board issued[90] (May 1999) comprehensive guidelines, which *inter-alia*, include:

- A halt stations can be opened under General Manager's power without referring such a case to Railway Board for approval when:
  i) There is a financial justification for opening a halt-station.
  ii) In the non-suburban area, the site of the proposed halt is at least 5 km from the stations/halts on either side.
  iii) When the proposal is feasible both from Operating and Engineering points of view.

[89] Para 1905 and 1906 of Indian Railway Code for Traffic (Commercial) Department
[90] RB's letter No. 99/TG IV/Halts/Policy dated 17.05.1999 [Circular No. 12 (Commercial Department)]

- If the conditions under which the General Manager can open halt stations are non-fulfilled, a halt may be opened as a passenger amenity, if the Zonal Railway is satisfied that there is justification for opening the halts on the grounds of volume of passenger traffic after getting approval of the Railway Board.
- While determining the feasibility of opening of a halt station, the Zonal Railways *inter-alia* should take into account the financial implication i.e. cost of stoppages of trains at the proposed halt for providing this facility.

These guidelines continues to remain operational till date.

During the review of records of Danapur Division of ECR, Audit observed that newly constructed Rajgir – Tilaiya New line, covering a distance of 46.08 kms, was opened for traffic on 29 June 2010. This single branch line section has three stations (Natesar, Jethian and Oro) and four halt stations (Nekpur, Sarsoo, Mohammadpur and Hisua). ECR Administration issued (June 2010) notification for commercial extension of a pair of passenger train[91] from Danapur to Rajgir up to Tilaiya with effect from 30 June 2010 with stoppage at all stations and halts over Rajgir – Tilaiya section. Subsequently with effect from 20 December 2010 a notification was also issued by ECR Administration for operation of new pair of DEMU Passenger train[92] between Bakhtiyarpur and Gaya via Rajgir – Tilaiya section with stoppage of all stations and halts over the section. The above notifications were endorsed to all concerned including Danapur Division, where the Rajgir – Tilaiya section falls.

Audit scrutiny of records revealed that these two pairs of passenger trains were regularly having stoppage at all the halt stations of Rajgir – Tilaiya section for more than six years. However, it was seen that no arrangements were made by Danapur Division for sale of ticket on these four halt stations and halt contractor was not appointed.

Audit further revealed (February 2017) that Divisional Authority, Danapur was even not aware of opening of these halts over this section despite the fact that

- Notification issued in June 2010 and December 2010 were also endorsed to Danapur Division.
- In the working Time Tables of Danapur Division of each year effective from July 2010 to October 2016, stoppages of these trains at halts had been notified.
- Tickets were also being sold for traveling to these four halt stations as noticed by Audit during test check of records of Rajgir station in May 2017.

Audit noticed that Railways have incurred a cost of ₹ 21.03 crore on operating these halt stations for stoppage of two pair of passengers trains from the date of opening of halt station to March 2017. The cost has been assessed on the basis

[91] Train No. 544/545 later re- numbered as 53232/53231
[92] Train No. 555/556 later re- numbered as 53225/53226

of minimum cost of stoppage of train, notified by Railway Board in June 2005 and December 2015.

Failure to appoint a halt contractor authorizing him for sale of tickets from four halt stations viz. Nekpur, Sarsoo, Mohammadpur and Hisua has resulted in leakage of revenue on account of ticket less travel from these halts. This also creates inconvenience to the passengers and compel them to travel ticketless from these halt stations.

The matter was brought to the notice of Railway Board (18 September 2017); their reply was awaited (28 February 2018).

2.9 South Eastern Railway (SER): Pre-departure detention of goods trains due to delay in arrival of crew and guard and consequent loss of opportunity of earnings of ₹58.30 crore

Two crew booking lobbies are run at Kharagpur, one adjacent to Kharagpur railway station and other at Nimpura Through Yard, which is located 11 km away. The crew from other divisions sign in and sign off at Nimpura Crew Booking Lobby, whereas the crew and guards of Kharagpur division sign in and sign off at the Combined Crew Booking Lobby at Kharagpur and then report to the Chief Controller/ Nimpura Through Yard for taking over charge of the goods train. Transportation of crew and guards is managed by providing hired vehicles. Due to late arrival of crew and guards at Nimpura Through Yard there have been regular pre-departure detentions of goods trains. The pre-departure detentions during the period 2014-15 to 2016-17 led to consequent loss of opportunity to earn ₹58.30 crore.

The Lobby System is aimed towards arranging train crew and guards for movement of Goods trains[93]. A Lobby is like Control Office in the field. It is established with the twin aim of reducing engine detention and crew detention in a Yard or a Crew or engine changing station by realistic ordering of trains and Crew/ Guard Booking. It is advantageous to have a combined crew and guard booking lobby so that both are available simultaneously. Pre-departure detention to the crew, crew hours balancing, rescheduling of locos and yard detentions to locos can be thoroughly monitored by the Lobby. Therefore, any pre-departure detention i.e. time gap between issue of Train Order and delay in actual departure of train indicates mis-management in the arrangement of train crew and guards for movement of trains.

There are two Crew Booking Lobbies at Kharagpur, one adjacent to Kharagpur Railway station and other at Nimpura Through Yard 11 km away. The crew from other divisions sign in and sign off at Nimpura Crew Booking Lobby, whereas the crew of Kharagpur division sign in and sign off at the Combined Crew Booking Lobby at Kharagpur and then report to the Chief Controller/ Nimpura Through Yard for taking over charge of the goods train. Transportation of Crew and

[93] Para IV (f) of Chapter Freight Operation of Indian Railways Operating Manual

Guards from Combined Crew Booking Lobby/ Kharagpur to Nimpura Through Yard and back is managed by providing hired vehicles.

As per the existing system, goods trains are ordered from Nimpura Through Yard for different directions where crew is booked and Train Order served at Kharagpur Combined Crew Booking Lobby. There have been regular pre-departure detentions of goods trains at Nimpura Through Yard due to late arrival of crew and guards at Nimpura Through Yard. Audit observed that the main reason for pre-departure detentions was non-availability of crew and guard vehicles on time according to Train Order and less carrying capacity of vehicles. It was seen that on an average 45 minutes were lost due to travel time from Kharagpur to Nimpura Through Yard resulting in reduction of effective crew hours by 90 minutes.

Further analysis revealed that to minimise the pre-departure detention of goods trains at Nimpura Through Yard and loss of railway revenue thereof, a proposal for commissioning of a new Combined Crew and Guard lobby with full infrastructure such as approach road, street light, extra office space for opening crew controller office, quarters for Loco pilots/Assistant loco pilots etc., and signing in and signing off facility at Nimpura Through Yard was initiated by the Senior Divisional Operating Manager, Kharagpur in September 2015. Though the proposal for commissioning of crew base at Nimpura Through Yard was agreed by Sr. Divisional Mechanical Engineer and Divisional Electrical Engineer (Operation) of Kharagpur division, no action was taken to open the combined crew base at Nimpura Through Yard.

Subsequently, the Divisional Railway Manager/Kharagpur made an exercise of re-pinpointing of guards and 29 goods guards were transferred to Nimpura Through Yard (November 2015 and March 2016). Though transfer orders were issued in November 2015 and March 2016 respectively, the concerned guards continued to sign in and sign off at the Combined Crew Booking Lobby/ Kharagpur due to non-opening of combined crew base at Nimpura Through Yard (August 2017).

Review of records of the Senior Divisional Operations Manager/ Kharagpur, showed that 13911, 13770 and 14121 goods train were ordered from Nimpura Through Yard during 2014-15, 2015-16 and 2016-17 respectively (i.e. average daily 38 trains). Out of these trains ordered 2350 trains (17 *per cent*) in 2014-15, 2866 trains (21 *per cent)* in 2015-16 and 2509 trains (18 *per cent*) in 2016-17 departed late due to late arrival of loco pilots (crew) and Guards at Nimpura Through Yard. The average pre-departure detention of rolling stock and locomotives was 41, 37 and 39 minutes per train in 2014-15, 2015-16 and 2016-17 respectively. Due to these detentions, SER lost an opportunity to earn revenue of ₹ 58.30 crore[94] during the past three years.

[94] ₹ 17.55 crore in 2014-15 , ₹ 21.26 crore in 2015-16 and ₹ 19.50 crore in 2016-17, on the basis of loss of earning capacity of rolling stock calculated by multiplying total hours lost due to detention and goods train earning per km

Thus, delay in opening of combined crew and guard lobby at Nimpura Through Yard by SER Administration and failure in addressing the issue of pre-departure detention of trains by providing a suitable accommodation for crew and guards at Nimpura, resulted in loss of opportunity to earn ₹ 58.30 crore during the period 2014-15 to 2016-17.

In reply, SER Administration stated (August 2017) that that the work for new combined Crew and Guards base at Nimpura Through Yard is in progress. They further stated that representations from crew and guards posted to Nimpura are being received, as staff quarters for them are not available for them in Nimpura. Earlier in June 2015, they had stated that the crew was temporarily utilised at Kharagpur, till final posting order issued and with the opening of new base at Nimpura Through Yard they should be posted at Nimpura. But, till date they are working from combined crew lobby at Kharagpur. SER Administration need to take measures to provide necessary infrastructure to the crew and guards at Nimpura so as to avoid pre-departure detention.

The matter was brought to the notice of Railway Board (24 October 2017); their reply was awaited (28 February 2018).

2.10 Northeast Frontier Railway (NFR): Inadmissible allowance of concession of ₹ 11.08 crore on restricted commodity under 'Freight Incentive Scheme'

As per the 'Incentive scheme for Traditional Empty Flow Direction (TEFD), concession on freight was available to a consignor from the next consignment on which they achieve a 'benchmark' Net Ton Kilometers (NTKM). There was a stipulation that all 'Ores and Minerals' would be a restricted commodity if carried in open wagon and thus would not qualify for concession under the scheme. However, concession under 'Freight Incentive Scheme' was allowed on carriage of Dolomite in open wagons, which did not qualify for incentive. This led to inadmissible allowance of concession of ₹ 11.08 crore to the consignor.

Railway Board introduced four different freight incentive schemes in November 2009 which were implemented with effect from January 2010. The main objective of the scheme were to achieve improved utilisation of rolling stock and generate additional traffic from sidings and goods sheds, across which traffic movement traditionally predominantly comprised of empty wagons.

Out of the said four schemes, one was 'Incentive scheme for Traditional Empty Flow Direction (TEFD)'. As per guidelines of this scheme, concession on freight was available to a consignor from the next consignment on which they achieve a 'benchmark' Net Ton Kilometers (NTKM) fixed on the basis of average month wise NTKM performance for the two previous years for the same commodity from the same terminal. There was, however, a stipulation that all 'Ores and Minerals' would be a restricted commodity if carried in open wagon and thus would not qualify for concession under the scheme.

In Alipurduar Division, Dolomite was being carried in both Open and Covered Wagons to different parts of the country and for the purpose of calculation of 'benchmark', NTKM earned from both Covered and Open Wagons were being considered by the Railway Administration. Dolomite, being categorised as 'Ores and Minerals' in IRCA Goods Tariff, is a restricted commodity for availing the concession under Incentive Scheme when carried in Open Wagons. Thus, the NTKM earned on carrying it on rakes comprising of Open Wagons does not qualify for consideration for concession under the scheme.

A consignor, M/s Bhiringhee Commercial Private Ltd. (BCPL) Durgapur, sent Dolomite in Open as well as covered wagons regularly. For, achieving the month-wise 'benchmark' NTKM, they were allowed weightage on NTKM earned by them on the consignments sent in Open Wagons too, which was inadmissible.

The matter was taken up with Railway Board on 11 October 2017. In reply, Railway Board stated (7 December 2017) that for determining Benchmark the examples of customer having loaded commodities in BCN and BOXN rakes (covered wagons) was taken for working out NTKMs. Hence, Alipurduar Division having taken previous loading in open wagon and covered wagon for the purpose of determining NTKM Benchmark, the NTKM in the case of particular consignee was determined as per extant guidelines. Further, the types of wagons indicated in the Special Letter are covered type wagon which was used for loading.

However, as per the illustrative calculation given in the Rate Circular No. 62 of 2009, calculation of NTKM was made for transportation of 'cement', which does not fall under the category of 'Ores and Minerals' and hence not a restricted commodity. As such, both BCN and BOXN rakes were cited. Further, NFR Administration allowed concession on rakes of covered wagons after allowing the consignor to achieve Benchmark NTKM inclusive of NTKMs earned on Open wagons without considering the 'restricted commodity' clause specifically mentioned against the instant policy.

Railway Administration continued to allow the inadmissible advantage to the consignor till the validity of the scheme (August 2015), thereby allowing an undue privilege worth ₹ 11.08 crore.

2.11 East Coast Railway (ECoR): Improper planning and short closure of traffic facility works resulted in loss of earning capacity

The Nayagarh railway siding caters to 87 customers for loading of iron ore. On an average 340 wagons are loaded every day and railway earns a freight revenue of ₹ 676 crore per year from this siding. Construction Organisation of ECoR awarded a contract for traffic facility work in the siding for enhancing the efficiency in loading/unloading operations of iron ore traffic. Though clear site was an essential pre-requisite to ensure timely execution of the work, Railway Administration allowed iron ore heaps to accumulate in the work site and did not

remove the same to handover a clear site to the contractor. Thus, the benefits of the sanctioned traffic facility works worth ₹ 4.23 crore, viz., development of circulating area and concrete pavement between R/3 and R/4 did not materialize. Railways also had to make an avoidable payment of ₹ 1.15 crore to the contractors towards price variation.

A contract was awarded by the Construction Organization of ECoR for the work comprising '(i) Development of circulating area and loading/unloading surface between Route-3 (R/3) and Route-4 (R/4) with concreting surface for smooth handling of iron ore traffic and (ii) construction of additional loop line adjacent to R/4 with loading/unloading surface at Nayagarh Station over Jakhharpura-Bansapani section of ECoR' in February 2010. The agreement value of the work was ₹ 12.83 crore and it was targeted for completion within eight months, i.e. by October 2010.

Audit noticed that the work was commenced in March 2010, but the physical progress achieved by the target date of completion (TDC) was only 7.7 *per cent*. The contractor informed the Construction wing on 23 March 2011 that the site between R/3 and R/4 was not handed over to him. The site was covered with huge deposit of iron ore and it hampered taking up the work of concreting of the surface between R/3 and R/4. Construction wing took up the matter with the Operating Department in May 2011 for clearance of the iron ore deposit and handing over the site for execution of the traffic facility work. However, till November 2013, the iron ore deposits could not be cleared. Extensions of TDC without penalty were granted mainly on this account.

Initially Nayagarh was a four lined[95] station. An additional loop line (R/5) with a loading/unloading platform was proposed on account of heavy demand for loading/ unloading of iron ore/ coal and accumulation of more than 150 pending indents at Nayagarh. While the work of additional loop line (R/5) was in progress, one more loop line was included in the ongoing contract through 1st variation on 10 February 2011 with enhancement of overall agreement value to ₹ 13.45 crore. The R/5 line was renamed as R/6 and the loop line proposed later was named as R/5.

Meanwhile, the Operating Department intimated the Construction Organisation (6 December 2013) that the execution of sanctioned work for development of circulating area, loading/unloading surface between R/3 and R/4 was not required considering various activities to be undertaken at Nayagarh station in future. They however, did not specifiy any details of the future activities. Consequently, the contract was foreclosed by Construction organisation on 11 December 2013. By that time, 70 *per cent* of work worth ₹ 9.74 crore (viz., provision of two additional loop lines R/5 and R/6 with a new loading platform) had been executed leaving the works for development of circulating area and concrete pavement between R/3 and R/4.

[95] R/1 - loop line having RL platform, R/2 - Main line, R/3 & R/4 - loop lines having a common platform for unloading/ loading

Audit observed that the contract was awarded without ensuring availability of site. The work which was planned to be completed within eight months i.e. by October 2010, lingered for more than four years with eight extensions and eventually foreclosed on Railway's account in December 2013. This led to avoidable payment of ₹ 1.15 crore to the contractors towards price variation besides the benefits of the sanctioned traffic facility works worth ₹ 4.23 crore, viz., development of circulating area and concrete pavement between R/3 and R/4 did not materialize. The loading/unloading surface provided for the line R/6 served only one line and was not developed as a common loading platform to enhance loading/unloading facilities.

When the matter was taken up with the Railway Administration through Special letter in November 2016, Railway Administration replied (January 2017) that

(i) At the time of tendering process, all plans and site were available. However, after the award of contract, heaps of iron ore got deposited in the loading area between R/3 and R/4 and the site could not be handed over for work execution. The Operating Department decided (December 2013) that various activities for enhancing loading and unloading facilities at Nayagarh station were under active consideration and finalisation; in view of that the work of development of circulating area, loading/unloading surface between R/3 and R/4 was not required to be executed and accordingly informed the Construction wing.
(ii) R-6 along with loading platform was in completion stage when R-5 was sanctioned. Hence, R-5 had to be constructed in between R-4 and R-6. This additional loop line (R-5) was required as an engine reversal line.

The reasons given by the Railway Administration for foreclosing the work cannot be justified due to the following:

(i) The concreting work between R/3 and R/4 was proposed citing several ditches in the platform causing discontentment among customers in plying trucks. But, the sanctioned work could not be executed due to presence of iron ore deposits on the site. The Railway Administration was aware that a contract for traffic facility work was already awarded and clear site was an essential pre-requisite to ensure timely execution of the work. Railway Administration allowed iron ore heaps to accumulate in the work site and did not remove the same to handover a clear site to the contractor. This led to abnormal delay in execution and ultimate foreclosure of the contract with a payment of ₹ 1.15 crore. Though it was stated that the Operating Department proposed that the works were not required considering various activities to be undertaken at Nayagarh station in future, no such activities were undertaken at Nayagarh subsequently.
(ii) Though Railway Administration stated that R/5 was required as an engine reversal line, it was seen that there was no such mention in the justification of the estimate. Creation of lines (R/5 and R/6) on both the sides of the newly laid platform would have enhanced its utility in traffic handling.

Nayagarh railway siding caters to 87 customers for loading of iron ore. On an average 340 wagons are loaded every day and railway earns a freight revenue of ₹ 676 crore per year (during 2016-17) from this siding. Though provision of two additional loop lines R/5 and R/6 with a new loading platform was executed, the works for development of circulating area and concrete pavement between R/3 and R/4 were not executed. The concreting work between R/3 and R/4 was proposed citing several ditches in the platform causing discontentment among customers in plying trucks. This work continued for more than four years with eight extensions due to lack of coordination between, Construction and Operating Departments and non-availability of site on account of accumulation of iron ore and eventually foreclosed on Railway's account in December 2013 with avoidable payment of ₹ 1.15 crore to the contractors towards price variation. Thus, the benefits of the sanctioned traffic facility works worth ₹ 4.23 crore, for development of circulating area and concrete pavement between R/3 and R/4 did not materialize.

In reply, ECoR Administration stated (September 2017) that although the work was awarded and the agency was available for execution, the Operating department might not have agreed to stop loading/ unloading activities in peak period anticipating huge revenue loss. However, the work was justified as necessary and included in the contract and the site should have been made available to execute the work.

Audit is of the view that a closer look is required to be taken at the works for development of circulating area and concrete pavement between R/3 and R/4 and view should taken on its need.

The matter was brought to the notice of Railway Board (30 October 2017); their reply was awaited (28 February 2018).

2.12 South Western Railway (SWR): Incorporation of ambiguous clause in the agreement leading to refusal of payment of wagon hire charges by Mormugao Port Trust

Due to incorporation of an ambiguous clause in the agreement for a suitable incentive in the waiver of Wagon Hire Charges for any reduction in free time, Mormugao Port Trust (MPT) did not reckon accumulated credit hours and refused to pay bills of ₹15.05 crore raised by SWR.

Mormugao Port Trust (MPT), Goa is one of the major Ports serving SWR. Major commodities being handled at the Port are Coal, Iron Ore and general cargo items. Due to the proximity of the Port with various mining regions in Goa, the Port became a premier Iron Ore exporting port of the country. Coal requirement from various steel industries and power generating units has made it an attractive and cost effective destination for coal imports and steel exports.

As per Clause 5.1 (a) of the Working Agreement, executed in August 2004 (effective from October 2004), between MPT and SWR, a *free time* of 15 hours was fixed with suitable incentive in the waiver of Wagon Hire Charges for any

reduction in *free time,* which would be calculated and adjusted once in six months.

The clause was found to be ambiguous and in the absence of clarity in granting incentive for early release of rakes under this Clause, neither MPT nor SWR could arrive at a common understanding for the past 15 years. While SWR continued to raise bills on MPT on a monthly basis towards detention to Railway rakes beyond the allotted *free time,* MPT consistently refused to pay bills so raised, insisting on resolving the issue of suitable incentive as per Clause 5.1(a). Though SWR raised a total bill for ₹ 16.43 crore (from February 2012 to December 2016), MPT agreed to pay ₹ 1.38 crore only , duly considering the waiver of up to 50 *per cent* of Wagon Hire Charges till January 2012 and for the remaining period, by straightaway deducting the total credit hours from the total debit hours.

Thus, an ambiguous clause for adjusting credit hours accumulated resulted in a deadlock of over 15 years in recovery of legitimate dues from MPT towards Wagon Hire Charges.

The matter was brought to the notice of Railway Board (18 September 2017); their reply was awaited (28 February 2018).

2.13 South East Central Railway (SECR): Loss due to non realization of engine hire charges from the siding owner

Despite detention of Railway's Engine in the siding beyond permissible period under Terminal Incentive cum Engine on Load Scheme (TIELS) and clear instructions of Railway Board on realization of engine hire charges on this account, Railway Administration did not realize the Engine Hire Charges of ₹28.23 crore from the siding owner.

In order to improve the utilization of the rolling stock, and help customers in prompt clearance of freight trains from their terminals, the Engine-on-Load (EOL) Scheme[96] was introduced by the Railway Board in July 2004. Under the said scheme the train engine would remain available during loading/unloading operation in the siding and wait on Railway's account so as to work the train immediately after loading/unloading operation is completed. The EOL scheme was superseded (March 2006) by a new 'Terminal Incentive cum Engine on Load Scheme (TIELS)' effective from 1st April 2006[97]. It was stipulated in the said order that implementation of the scheme should be through mechanism of EOL Benefit/ Terminal incentive benefit. Some of the important features of TIELS Scheme are:

- For the purpose of reduction of detention of Rolling stock in the terminals, loading / unloading free time[98] of block rake, under the scheme, was reduced.

[96] Rates Circular No. 21 of 2004 dated 12.7.2004
[97] Railway Board's Freight Marketing Circular No. 9 of 2006 issued under No. 2005/TC/(FM)/1/8 dated 6.3.2006
[98] Prescribed time schedule for loading / unloading of rakes in a siding beyond which demurrage charges are leviable

For example, unloading time of Open rake (BOXN etc.) was reduced to five hours against nine hours applicable to normal sidings.

- A financial incentive in the form of freight rebate of specified percentage for a period of ten years was allowed to customer who helps to reduce the terminal detention by taking certain measure like, increase in number of pay loaders /tippler, introduce round the clock working etc. (for old existing customers only).
- The scheme was applicable to existing sidings only, which have been notified for charging of freight on through distance basis.
- All future sidings were to come up with EOL concept and reduced loading/ unloading time for TIELS would be applicable without any financial benefit (freight rebate).
- As a direct benefit under the scheme, freight customers were allowed for utilization of Railway's Locomotives during free time of loading/unloading, without paying engine hire charges.

During audit (February 2014) of records of M/s Sanjay Gandhi Thermal Power Station Siding (SGTPS) served by Birshinghpur Station of South East Central Railway (SECR) it was noticed that a new unloading point (Track Hopper No. 2) was opened in the siding under SECR's Rate Circular[99] of April 2008 in addition to their two existing unloading points (Tippler Siding and CHP Siding). It was stipulated in the SECR's Rate Circular that the coal rakes would be placed for unloading in any of the three unloading points including the new one and the freight would be charged for the farthest distance of 10.83 kms for all three unloading points. It was further indicated that TIELS would be applicable to the new unloading point without financial benefit[100] and free time for unloading would be the free time notified for TIELS[101]. The existing two unloading points would be treated as normal siding (without TIELS) and normal free time[102] would be applicable and demurrage would be calculated beyond free time for detention of wagons. For detention of Engines beyond free time in these two old unloading points, shunting charges on the basis of All India Engine Hour Cost would be charged from the time of placement of rakes to till completion of unloading, as the Rail Engine would remain attached to the rakes till completion of unloading as a result of applicability of TIELS in 3rd unloading point.

Audit noticed that in Track Hopper No.2 (the new unloading point) of SGTPS siding, though SECR authority was levying and realizing the demurrage charges for detention of wagons beyond free time of five hours, Engine hire charges for detention of Railway's Engine beyond free time of five hours as prescribed in Rule of TIELS [103] were not levied and realised from the siding owner. This led to

[99] Rates Circular No. 51(G)/2008 dated 21.4.2008 of Chief Commercial Manager, SECR, Bilaspur
[100] Freight rebate of specified percentage in TIELS vide Freight Marketing Circular No. 9 of 2006 dated 6.3.2006 (Para 10).
[101] Five hours unloading time in this case vide Para 6 of Freight Marketing Circular No. 9 of 2006 dated 6.3.2006
[102] Nine hours in this case
[103] vide Para 5 of FM circular No. 9 dated 6.3.2006

non-levy and non-realisation of ₹ 28.23 crore[104] towards Engine Hire Charges from the Siding owner during the period from January 2009 to March 2017 towards detention of 6968 Engines for 12582 hours. The loss would continue till remedial action is taken. **Annexure 2.14**

The matter was brought to the notice of Railway Administration in July 2017, while replying (September 2017) Railway Administration accepted the Audit contention and stated that they have now decided to impose engine hire charges beyond free time for use of railway engine in Track Hopper No. 2. However, no details on date of billing, amount billed and realization thereof etc. were furnished to Audit. In addition, formal bills for realization of Engine Hire Charges were yet to be raised by SECR. Moreover, As per Para 21(iii) of Railway Board's Freight Marketing Circular No. 9 of 2006, Division will sign an agreement with the terminal owners stipulating the streams of traffic that will be covered under TIELS working, as also the date from which it will come into force. However, neither any reply in this regard nor the copy of the agreement was furnished by Railway Administration to Audit so far.

Thus, detention of Railway's Engine in the siding beyond permissible period under TIELS resulted in non-realisation of Engine Hire Charges of ₹ 28.23 crore from the siding owner during the period January 2009 to March 2017.

The matter was brought to the notice of Railway Board (13 October 2017); their reply was awaited (28 February 2018).

2.14 East Coast Railway (ECoR): Non-weighment of loaded rakes of Food Corporation of India (FCI)

FCI has eight sidings for loading of consignments in Sambalpur division. As per the instructions laid down by the Railway Board, for rakes loaded with bagged consignments, weighment of at least 5 per cent rakes is required to be done before loading, to keep a check on overloading. Audit observed that in four out of eight loading points viz. Hirakud, Bargarh Road, Khariar Road and Mahasamund, ECoR Administration did not ensure weighment of at least 5 per cent rakes before loading, though there were instances of overloading in the past at these loading points. The weighbridges at these four locations have become non-functional during 2015 to 2017. The rakes are not being weighed any more. Non-weighment of rakes encourages overloading malpractices which lead to loss of revenue and damage to rolling stock and tracks and detection of overloading and levy of punitive charges thereon is also not possible.

Section 73, of The Railways Act, 1989 prescribes levy of punitive charges for overloading of goods in a wagon beyond its permissible carrying capacity at the prescribed rate circulated by Railway Board from time to time. As per Ministry of Railways instructions[105] (June 2007), in cases of dispute regarding punitive

[104] ₹ 27.34 towards non-realisation of Engine Hire Charges from the Siding owner and non payment of service tax amounting to ₹ 0.89 crore accrued on Engine Hire Charges.
[105] Rates Circular No.61 of 2007

charges for overloading in respect of consignments loaded in standard sized bags, the number of bags in the wagons detected to be overloaded may be counted and the average weight of a bag determined by weighing a few bags in random basis at the destination point in the presences of the representatives of the consignor/ consignee and two gazetted Railway officers. Further, Ministry of Railways (September 2011) further issued instructions[106], decided that in case of consignment loaded in standard uniform bags; at least 5 *per cent* of rakes should be subjected to weighment. Where the commodities are over-loaded in Railway wagons, the Railway Administration shall recover punitive charges[107] from the consignor, the consignee or the endorsee as the case may be.

Audit scrutiny (January 2015 and August 2016) of records on Station Outstanding in the Office of the Senior Divisional Commercial Manager/ Sambalpur revealed accumulation of outstanding punitive charges of ₹ 4.59 crore levied against the Food Corporation of India (FCI) for overloading detected in their bagged consignments of food grains loaded at eight Goods Siding/Stations viz. Hirakud, Bargarh Road, Kantabanji, Khariar Road, Mahasamund, Bagbahra, Balangir and Kesinga of Sambalpur Division from November 2012 to August 2016.

FCI authorities disputed the levy of punitive charges since 2012-13 and stated that no overloading was done as all the consignments were being loaded by FCI on 100 *per cent* weighment basis on the computerised weigh bridge after taking both gross weight and tare weight of the trucks. They stated that there might be some error in the in-motion weigh bridge for which it was showing excess weight after loading. They further contested that their rakes were loaded with standard bags of uniform size and only 5 *per cent* of it should have been subjected to weighment at in-motion weighbridges. Railway Board directed (April 2016) ECoR Administration to settle the issue locally by mutual discussions and did not gave a firm decision to settle the long outstanding dispute and to realize outstanding punitive charges.

Audit reviewed the position of weighment of FCI rakes after August 2016, and noticed that there was no case of weighment/ overloading of FCI consignments in respect of all the loading stations except only one case in Mahasamund loading station. Further review showed that out of the eight loading points (Hirakud, Bargarh Road, Kantabanji, Khariar Road, Mahasamund, Bagbahra, Balangir and Kesinga) of FCI consignments in Sambalpur division, in four loading points viz. Kantabanji, Bagbahra, Balangir and Kesinga, no rake was loaded during 2016-17 and 2017-18 (up to September 2017). In respect of the remaining four loading points viz. Hirakud, Bargarh Road, Khariar Road and Mahasamund, FCI's consignments were loaded but the weighment of at least 5 *per cent* rakes as per the provision of Railway Board's orders was not followed. Further, these weighbridges were out of order since 2015. This clearly indicates

[106] Rates Circular No.32 of 2011

[107] Punitive charges on overloading are calculated by Railway authorities as per Ministry of Railways Rates circular No.19/2012

that the consignments are being allowed to move without any weighment since 2016-17. As rakes are not being weighed any more, possible detection of overloading and levy of punitive charges thereon is not possible.

The matter was brought to the notice of Railway Board in November 2017. Railway Board stated (December 2017) that rakes of FCI have been weighed in the railway in-motion weighbridges duly certified by legal metrology department and the punitive charges have been levied as per rule. The in motion weighbridge at Hirakud turned defective and become non-functional since 8 May 2015 due to system software failure and it was condemned on 30 March 2016. The in motion weighbridge at Titlagarh was condemned on 8 May 2016 and weighment discontinued from 11 February 2017. Hence, the rake of FCI could not be weighed in at Hirakud and *enroute* weighbridge at Titlagarh for FCI's rakes originating from Sambalpur Division. New electronic in motion weighbridge have been planned in place of Hirakund and Titlagarh at Latanga and Kandel Road station respectively to ensure weighment of rakes originating from Sambalpur Division. The new weighbridge will be commissioned shortly.

The reply of Railway Board substantiates the audit observation that weighment of FCI rakes could not be done until the new weighbridges are commissioned. Non-weighment of rakes encourages overloading malpractices which lead to loss of revenue and damage to rolling stock and tracks. Railway Board must ensure that their instructions of weighment of consignments are followed scrupulously and recovery of penalty, if needed is done from the defaulting consignor/ consignee.

2.15 Central, Eastern, Northeast Frontier, North Eastern, North Western and Western Railway (CR, ER, NFR, NER, NWR and WR): Undue advantage taken by Jansadharan Ticket Booking Sewaks (JTBSs) by depositing de-monetised specified bank notes with the Railways post-demonetization

132 Jansadharan Ticket Booking Sewaks in six Zonal Railways took undue advantage of the facility provided by the Government of India to allow transactions at railway ticketing counters and deposited specified bank notes with the Railways post demonetisation instead of depositing the cash in the banks.

Ministry of Railways, with a view to improve dispensation of unreserved tickets in city areas, conceptualized a scheme of Jan Sadharan Ticket Booking Sewak (JTBS) in June 2006. The scheme was initially introduced in Northern Railway as a pilot project and implemented in the other Zonal Railways in January 2008. The procedure for implementing the scheme was laid down[108] by Railway Board in June 2006. Vide Para 11 (iii) of the letter, Railway Board clarified that the JTBS would have to make advance deposit and tickets could be issued till the amount

[108] No. 2006/TG-I/20/JTBS dated 28 June 2006

against the deposit was available. In November 2009, Railway Board further clarified that lower financial limit of ₹ 10,000 up to which JTBS can issue tickets have to be provided in system universally for all JTBS so that tickets by JTBS cannot be issued if the amount deposited by them is less than ₹ 10,000[109]. No upper financial cash limit for issue of tickets by the JTBS was fixed by the Railway Board.

As per Gazette Notification[110] dated 08 November 2016, currency notes of denomination of five hundred rupees and one thousand rupees (i.e. specified bank notes) were demonetised and these notes ceased to be legal tender on and from 09 November 2016. Railway Board, vide its letter[111] dated 09 November 2016, clarified that the specified bank notes would not cease to be legal tender with effect from 09 November 2016 until 11 November 2016 to the extent of transactions at railway ticketing counters, ticket counters of Government or Public Sector Undertakings buses and airline ticketing counters at airports for purchase of tickets and communicated the same to all Zonal Railways. It was also stated that a complete account of record should be maintained for transactions which were made with the specified bank notes during the above period. Instructions were given to the officials involved in the Railway ticketing operations and eventual deposit of the cash received in the Railway's Deposit Account. It was observed that no specific directives/ instructions were issued by the Railway Board in respect of cash deposited by the JTBSs in Railway's Deposit Accounts essential for issue/sale of unreserved tickets through computerised Unreserved Ticketing System.

Audit test checked the transactions carried out by 132 JTBSs during 07 November 2016 to 11 November 2016 on 59 stations[112] of six Zonal Railways[113]. A comparison of deposits made by the JTBSs for five days of pre and post demonetisation revealed that post demonetization, total cash deposited by these 132 JTBSs exceeded their normal pre-demonetization cash deposit by significant amounts as tabulated below:

Table 2.15 – Details of amounts deposited by JTBS pre and post demonentisation

Zonal Railway	Total number of JTBS in the Zonal Railways	Number of JTBS where significant variation in cash deposit was noticed	Amount deposited by JTBS (₹ in lakh)				
			Pre-demonetisation		Post demonetisation		
			07.11.2016	*08.11.2016*	*09.11.2016*	*10.11.2016*	*11.11.2016*
CR	210	33	14.51	12.24	61.39	32.95	18.24
NEFR	16	08	0.10	0.82	3.89	2.02	1.29

[109]Made effective from 1 January 2010
[110] S.O. 3407(E) and S.O. 3408(E) dated 08 Nov 2016
[111] Letter No.RBA 2016/ACII/9/3 dated 9 Nov 2016
[112]CR-08 stations (Kurla, Ghatkopar, Thane, Kalyan, Panvel, Pune, Parasia, Bhusawal), NFR-05 stations (Sumsi, Ladha, Jogbani, Katihar, Barsoi), NWR-14 stations (Alwar, BandiKui, Nimkathana, Sikar, Jaipur, Phulera, Bhilwara, Ajmer, Bhiwani, Laharu, Churu, Hisar, Degana, Makrana), NER-08 stations (Farrukhabad, Gorakhpur, Mau, Siwan, Kashipur, Lucknow,Chhapra,Kashipur, Ajamgarh), WR-09 stations (Ahmedabad, Viramgam, PTN, Kandivili, Virar, BhauruchJn, Kosamba Jn, Indore, Ujjain), ER-15 stations (Barddhaman, Howrah, Katwa Jn., Tarkeshwar, Ashoknagar Road, Behrampore Court, Chakdaha, Canninig, Dattakupur, Kanchrapara, Krishnapur, Sealdah, Sodpur, Sonarpur, Taldi)
[113] Central, Northeast Frontier, North Western, North Eastern, Eastern ,Western Railways

Table 2.15 – Details of amounts deposited by JTBS pre and post demonentisation							
Zonal Railway	Total number of JTBS in the Zonal Railways	Number of JTBS where significant variation in cash deposit was noticed	Amount deposited by JTBS (₹ in lakh)				
			Pre-demonetisation		Post demonetisation		
			07.11.2016	*08.11.2016*	*09.11.2016*	*10.11.2016*	*11.11.2016*
NWR	91	18	3.11	12.12	12.39	4.53	5.10
WR	49	12	3.88	11.44	15.35	6.32	4.43
ER	131	32	7.35	9.57	34.50	19.86	13.33
NER	148	29	6.63	21.65	31.55	16.29	14.49

In seven out of 13 cases at Kurla station, where the JTBSs had deposited the demonetized notes disproportionate to their ticket sales, the Central Railway Administration had issued show cause notices (28 and 30 November 2016) endorsing copies to Income Tax Department. The JTBSs, in their explanations to show cause notice, stated that these cash were for their personal use, emergency needs, loan payment, to avoid rush in the banks etc. Reasons for not taking action against the remaining six JTBSs at Kurla Station by the Central Railway Administration were not on record. On the matter taken up by Audit, the Central Railway Administration referred the matter to Income Tax Authorities on 23 August 2017, 07 September and 11 September 2017 in Mumbai, Pune, Nagpur and Bhusawal Divisions respectively.

It was further observed that the percentage of tickets sold by these JTBSs were significantly low in comparison to cash deposited by them during post demonetization period as shown in the Table below:

Table 2.16 - Percentage of sale of tickets to cash deposited by the JTBS					
Zonal Railway	Pre-demonetisation		Post demonetisation		
	07.11.2016	*08.11.2016*	*09.11.2016*	*10.11.2016*	*11.11.2016*
CR	93	89	15	24	42
NEFR	157	79	14	19	29
NWR	90	22	12	31	28
WR	91	25	13	32	44
ER	105	85	20	26	45
NER	120	45	28	38	42

Thus, in the absence of specific directives/instructions from Railway Board to fix an upper limit for cash deposits by JTBSs, the JTBSs took undue advantage and deposited large amounts of cash with the railways in de-notified denominations, instead of depositing the same in the banks. The Gazette Notification issued by the Central Government on 08 November 2016 allowed the old denomination notes to be used for the purpose of buying railway tickets at railway ticket counters and sale of tickets by JTBS was not included in the same.

The matter was brought to the notice of Railway Board (5 January 2018); their reply was awaited (28 February 2018).

2.16 South East Central railway (SECR): Loss due to short realization of demurrage charges

As per Railway Board directives permissible free time for loading/unloading of rakes has been prescribed for various types of wagons in private steel sidings. The agreement with Jindal Steel and Power Limited clearly stipulated that the instruction regarding Terminal Incentive cum Engine on Load Scheme contained in Railway Board directives shall be followed for the siding. SECR however, allowed excess free time to this siding which resulted in short-levy of demurrage charges of ₹ 10.56 crore.

Railway Board vide its Rate Circular No.74 of 2005 dated 19 December 2005 has clearly bifurcated free time for loading and unloading of different types of wagons and allowances (if any) at goods sheds and sidings.

In order to improve the utilization of the rolling stock and help customers in prompt clearance of freight trains from their terminals, Railway Board introduced (March 2006) 'Terminal Incentive cum Engine on Load Scheme (TIELS)' effective from 1st April 2006[114]. The scheme stipulates that all future sidings are to come up with (Engine on Load) EOL concept and loading/unloading time for TIELS would be applicable for all such future terminals without any financial benefits being admissible. Permissible free time for loading/ unloading of various types of block rakes with TIELS working is prescribed as:

Table 2.17 – Loading and unloading time allowed for various types of wagons

Type of wagon	Loading (hrs)	Unloading (hrs)
Open Rake (BOXN etc.)	3:00	5:00
Hopper Rake (BOBR etc.)	3:00	2:00
Covered Rake (BCN etc.)	6:00	6:00
Tank Rake (BTPN etc.)	5:00	5:00

In SECR, there are two sidings of Jindal Steel and Power Limited (JSPL), Kirodimalnagar viz. JSLK siding and Rail & Universal Beam Mill (R&UBM) siding. JSLK siding is the old siding with normal free time applicable for steel plants as per Para 2.4 of the Rate Circular No.74 of 2005. R&UBM siding is a new siding notified[115] as independent booking point for handling full rake by SECR Administration in November 2007 with TIELS free time, wherein it was also mentioned that for calculation of demurrage charges, the free time prescribed in TILES shall be applicable. During test check of records of grant of free time and realization of Demurrage Charges in these sidings, the following irregularities were noticed:

(i) In contravention to the permissible free time for loading under TIELS/EOL concept, Railway Administration allowed normal free time applicable for steel plants as per Para 2.4 of RC-74/2005. As a result, 17 hours (12 hours + 5 hours) free time (including block rake allowance of five hours) was allowed instead of

[114] Railway Board's Freight Marketing (FM)Circular No. 9 of 2006 dated 06.03.2006
[115] CCM/SECR/BSP's Circular No. 183 (G)/2007 dated 26.11.2007

three hours for loading of open wagons rakes and demurrage charges were levied and realized accordingly. This led to short levy of demurrage charges to the tune of ₹ 6.38 crore for the period during April 2012 to March 2017 in respect of 1018 rakes in R&UBM Siding as assessed in Audit.

(ii) Railway Board further clarified[116] (May 2015) that permissible EOL free time for loading of Flat Rake (BRN/BFN, CONCORD) shall be six hours. However, the said instruction was also not adhered to and 17 hours (including Block Rake Allowance of five hours) free time was allowed instead of six hours for loading of Flat and CONCORD rakes. Consequently, demurrage charges in respect of Flat/CONCORD (BRN+BFN+BOST) rakes was also short collected to the tune of ₹ 4.18 crore for the period from May 2015 to March 2017 in respect of 809 rakes in R&UBM Siding as assessed in Audit.

In reply, SECR Administration in March 2016, they stated (May 2016) that R&UBM siding was constructed in the existing plant area under expansion programme and notified in November 2007. It was further stated that only new siding can be brought under EOL and for the existing sidings TIELS will be applicable, only when, the siding opts to come under TIELS/EOL. No separate agreement was executed for R&UBM to work under TIELS.

However, the fact remains that the agreement was executed (November 2007) between JSPL & Railway Administration for newly constructed R&UBM siding and Clause 13(c) of the agreement clearly stipulated that instruction regarding TIELS contained in FM-09/2006 shall be followed for the siding.

Thus, non-adherence to Railway Board's orders and allowing excess free time for loading of rakes in R&UBM siding resulted in short-levy of demurrage charges of ₹ 10.56 crore[117] by SECR. Further, the very purpose of improving the utilization of rolling stock and prompt clearance of freight trains from siding for which the TIELS/EOL free time scheme was introduced was also defeated.

The matter was brought to the notice of Railway Board (21 September 2017); their reply was awaited (28 February 2018).

2.17 Central Railway (CR): Deficiencies in remittance of cash by the Ticket Booking Staff and Ticket Examiners

There was accumulation of admitted debits in various divisions of CR, as codal provisions for clearance of admitted debits were not implemented by Railway Administration. Staff misappropriated cash and did not remit cash in full. System of recovery of outstanding amount, in convenient monthly installments, also encouraged continuance of the practice of short remittance of cash by the staff. Railway Administration failed to take disciplinary action against the employees who were habitual defaulters. All Zonal Railway Administrations need to issue JPO expeditiously so as to put in place a mechanism for streamlining the system of remittance of cash by staff and minimizing the cases of misappropriation of station earnings. Railways also need to take

[116] Railway Board's Rate Circular No. 18 of 2015 dated 14.05.2015
[117] ₹ 6.38 crore for the period April 2012 to March 2017 and ₹ 4.18 crore for the period May 2015 to March 2017

stringent action against defaulters which will act as a deterrence against such practices. Considering the number of ticket booking and ticket checking staff across Indian Railways, the risk of mis-appropriation and continued practice of short remittance of cash would be manifold.

As per Para 2430 of Indian Railway Commercial Manual (Volume II), any railway servant who receives money on account of Railway and with intent to defraud, omits to enter it in the cash book or other prescribed record or who collects unauthorized charges from the public, is liable to be prosecuted. Severe action would be taken against the staff at fault, if it is found that the money realized has not been remitted.

Admitted Debits represent the debits raised against the station and accepted by the staff as due from them. Every debit or disallowance against the station by the Traffic Accounts Office or Cash Office arising from errors in charging fare or freight, short remittance of cash, base coins or other causes, is payable by the concerned staff. Rules[118]provide that admitted debits should be made good immediately by the staff concerned in cash. In case of heavy debits, Divisional Commercial Manager (DCM) may permit the recoveries from salary bills in monthly installments. Rules[119] also provide that if the admitted debits are not made good in cash by the staff concerned before the date of preparation of salary bill, the Station Master should prepare a statement of recoveries to be made from the staff on account of debits and send the same to the Divisional Accounts Office along with relevant pay bill.

As per existing instructions[120] issued to Travelling Inspector of Station Accounts (TIA) and Traffic Inspection Section, the TIA should pursue the pending admitted debits and see that they are cleared quickly by advising DCM for recovery through pay sheet. Details of the persons who are frequently in the habit of making short remittances should be brought to the notice of DCM and Chief Commercial Manager (CCM) for further action. Commercial staff against whom debits are raised repeatedly and where the debits are heavy should not ordinarily be allowed[121] to continue in posts involving cash handling in order to prevent recurrence of such cash embezzlement.

Review of the position of clearance of admitted debits by the Ticket booking staff and Ticket checking staff in Central Railway revealed the following irregularities:

Admitted Debits of Ticket booking staff

In various Divisions of Central railway, outstanding balance under Admitted Debits was ₹ 56.27 lakh[122] at the end of March 2017. Though half yearly reviews

[118]Paras 2720 and 2723 of Indian Railway Commercial Manual (Volume II)
[119]Para 2721 of Indian Railway Commercial Manual (Volume II)
[120]Paras 266 (3) and 924 (2) of Central Railway's Manual of Instructions issued by Financial Adviser and Chief Accounts Officer (FA&CAO)
[121]Para 1002 (iii and vi) of Indian Railway Code for Traffic (Commercial) Department
[122]Mumbai Division (₹ 20.59 lakh), Pune Division (₹ 6.63 lakh), Bhusawal Division (₹ 25.09 lakh), Nagpur Division (₹ 3.50 lakh), Solapur Division (₹ 0.47 lakh)

were conducted by CR Administration and results reported to Railway Board, no concrete efforts were made either by the Commercial or the Traffic Accounts Department to initiate necessary action to recover the old outstanding amounts as per codal provisions. In Mumbai Division, it was observed that

- During April 2014 to December 2016, eight Booking Clerks were regularly making short remittances of cash, but the Railway Administration failed to take disciplinary action against them. The provisions of disallowing the staff to continue in the posts involving cash handling were also not being followed.
- Admitted debits amounting to ₹ 3.05 lakh were not recovered from 14 Booking clerks for reasons such as long absence, transfer and TIA credit awaited etc.

In six other cases (Mumbai, Pune and Bhusawal Divisions), the Admitted Debits were outstanding for a considerable period 09 months to 33 months.

Admitted Debits of Ticket checking staff

- In Bhusawal, cash amounting to ₹ 24.72 lakh collected by one TTE (Sri.S.S. Wanale) through issue of Excess Fare Tickets (EFTs) to the passengers during 29 December 2013 to 01 October 2014 was not remitted. TTE's returns in respect of these EFT books were also not submitted by him. The said TTE had quoted fake Money Receipt numbers in proof of depositing cash with railways and also affixed stamp of Bhusawal booking office on reverse side of the last EFT used. Debit of ₹24.72 lakh was raised (November 2014) against Shri S.S. Wanale/TTE and recovery was being made @ ₹10,000 per month with effect from February 2016. A sum of ₹ 21.92 lakh was outstanding for recovery at the end of December 2017. Audit observed that the irregularity of misappropriation/non-remittance of cash by the said TTE (Shri Wanale) was not pointed out in any of the nine TIA Reports for the period 2012-13 to 2014-15, which indicated a weak internal check by the Traffic Branch of the Accounts Department.
- In Mumbai Division, review of records of DCTI/Mumbai revealed (March 2017) that the ticket checking staff were habitual in making short remittance of railway cash**.** Debits aggregating ₹11.32 lakh were raised against the erring staff. Thus, railway's revenue/cash was retained by the erring staff and used by them for personal use, which tantamount to misappropriation of Railway revenue. On the pointed out by Audit, the Railway Administration stated (June 2016) that the ₹ 10.80 lakh had been recovered from 14 employees and only ₹ 0.52 lakh was outstanding from two staff.

Outstandings from retired/expired/transferred/long absent staff

Audit observed that, in respect of 31 Ticket booking staff of Mumbai Division who had either retired, expired or removed from service, Railway Administration did not recover the outstanding dues amounting to ₹ 7.16 lakh as on December 2016. An amount of ₹ 2.51 lakh was outstanding for recovery from

the ticket checking staff of DCTI/CSTM who had either retired, transferred, expired or were long absent.

Issuing of EFT books and returning by TTEs

Detailed procedure for maintaining the stock book of money value books (Blank Paper Ticket Books)/EFT books are laid down[123] in railway manuals. Railway Board's Commercial Circular No.53 of 2012, describe the procedure for depositing earnings of Ticket Collectors (TCs) and TTEs in the booking office, issue of Money Receipt by the station staff receiving the cash and preparation of excess fare returns by the TTEs for its submission to the Traffic Accounts Office by the Chief Ticket Inspector (CTI) concerned. Checks to be carried out by the TIAs on the initial records of accounts (viz. excess fare receipts etc.) maintained at stations and periodicity of inspections, procedure to be adopted in utilization and preparation of various returns of EFT by station staff viz. TTEs and TCs and in case of loss of an EFT book are laid down[124].

During audit, instances of delay in returning/non-returning of EFT books, delay in submission of EFT returns, loss of EFT books by the TCs/TEs/TTEs were also noticed which have been summarized below:

i. Delay in returning/non-return of used EFT books

As per existing instructions, used EFT books are to be returned by the TCs/TEs/TTEs immediately after exhausting all the foils of the book before requisitioning a new book. It was observed that

- In Chhatrapati Shivaji Maharaj Terminus (CSTM), in 32 cases, there were delays of two and 182 days in returning the EFT books issued to TCs/TEs/TTEs during the period January 2016 to January 2017.
- In Bhusawal, out of 150 used EFT books (pertaining to the period January 2016 to March 2017); there were delays in 97 cases in returning the used EFT books. The delays ranged between seven and 144 days.
- In two cases, two EFT books issued (on 13-7-2012 and 2-4-2013) to the staff (one TTE and one Head TTE) were not returned by them. Cash amounting to ₹ 0.50 lakh collected by them was outstanding. The TTE was absent since October 2012.

ii. Delay in submission of EFT returns

During April 2016 to March 2017, 11 staff of DCTI/Bhusawal did not submit the EFT returns in time. The delay ranged between 17 and 31 days.

iii. Loss of EFT books

In seven cases, EFT books issued to TTEs were not returned by them till March 2017 and reported as lost resulting in non-remittance of railway cash of ₹ 2.02 lakh.

[123]Para 228 (b), Para 554 and Para 728 of Indian Railway Commercial Manual (Volume I)

[124]Paras 3301, 3302 and 3307 of Indian Railway Code for Accounts Department (Volume II), Chapters 2, 5, 7, 13 and Paras 228 (b), 554 and 728 of Indian Railway Commercial Manual (Volume I),Railway Board's Commercial Circular No.53 of 2012 and Commercial Circular No.8/2007

iv. Issue of Joint Procedural Order

Railway Board vide Commercial Circular No. 53 of 2012 dated 11.9.2012 issued detailed guidelines for the remittances of Travelling Ticket Examiner (TTE)'s cash. As per Railway Board's instructions (September 2012), the TTE shall deposit the amount realized through EFTs issued immediately at the station where duty schedule terminates. The Booking clerk, on receipt of the cash from TTE, shall generate Unreserved Ticket System (UTS) Money receipt duly feeding break-up of remittances and hand over the same to the TTE. TTE shall mention the UTS Money receipt number and date under clear signature/stamp on the back side of last record foil of EFT used.

Railway Board directed Centre for Railway Information System (CRIS) (August/September 2012) to make necessary provisions in Unreserved Ticketing System (UTS) by including a mandatory field of Provident Fund (PF) Number so that, money receipts are issued from the UTS with PF number. A Report (on daily/periodical/monthly basis) was to be designed by CRIS showing the TTE wise remittances made at various stations either within the same zone or other Zonal Railways. This was to be done to facilitate easy reconciliation of TTE returns submitted by them. The zone wise and TTE's Headquarter wise report was to be generated for all the Zonal Railways. This report was crucial for reconciliation, checks and subsequent transfer of earnings due to other railways. The date of effect of the above software change was to be informed to Zonal Railways under intimation to Railway Board for implementing the above revised scheme. Railway Board had directed the Chief Commercial Managers (CCMs) and FA&CAOs of all the Zonal Railways to issue a detailed JPO covering all the aspects mentioned above and to ensure smooth implementation of the revised procedure.

Audit observed that JPO on the above lines was not issued by the Central Railway Administration (23 January 2018). Review of status of issue of JPO in the other Zonal Railways showed that no JPO was issued in nine Zonal Railways (NCR, NER, NEFR, NR, SWR, SER, SECR, WCR and WR). Only NWR and ECR had issued the JPO in compliance of Railway Board's instructions dated 11 September 2012. In three Zonal Railways (SR, SCR and ECoR), necessary instructions based on Railway Board's Commercial Circular No. 53 of 2012 were issued, no JPO as required in the Commercial Circular ibid was issued by the Zonal Railway Administration. Status of issue of JPO was not made available to audit by ER Administration. Audit noticed that in SR, instructions issued based on commercial circular *ibid* are being followed. However, there is no provision in UTS for generating report on TTE-wise/location-wise/zone-wise remittances and there is no automatic system generated reconciliation.

Thus, there was accumulation of admitted debits in various divisions of CR, as codal provisions for clearance of admitted debits were not implemented by Railway Administration. Staff misappropriated cash and did not remit cash in full. System of recovery of outstanding amount, in convenient monthly installments, also encouraged continuance of the practice of short remittance of

cash by the staff. Non-deposit of cash collection amounts to temporary embezzlement. Railway Administration failed to take disciplinary action against the employees who were habitual defaulters. The audit observations are a result of test check in one Zonal Railway (Central Railway). ***Considering the number of ticket booking and ticket checking staff across Indian Railways, the risk of mis-appropriation and continued practice of short remittance of cash would be manifold. All the Zonal Railway Administrations need to issue JPO expeditiously so as to put in place a mechanism for streamlining the system of remittance of cash by staff and minimizing the cases of misappropriation of station earnings. Railways also need to take stringent action against defaulters which will act as a deterrence against such practices.***

The matter was brought to the notice of Railway Board (02 February 2017); their reply was awaited (28 February 2018).

Chapter 3

Engineering

Member Engineering at Railway Board is responsible for maintenance of all fixed assets of Indian Railways such as Tracks, Bridges, Buildings, Roads, water supply, in addition to construction of new assets such as new lines, gauge conversion, doubling and other expansion and developmental works. He is assisted by Additional Member (Civil Engineering), Additional Member (Works) and Advisor (Land & Amenities).

At Zonal level, the Engineering Department is headed by Principal Chief Engineer (PCE). The PCE is assisted by various chief engineers for track, bridge, planning, track machines, general matters etc. In addition, each Zonal Railway has a construction organization headed by a Chief Administrative Officer, Construction who is responsible for major construction works including survey works within the Zonal Railway and is assisted by various Chief Engineers (Construction).

The total expenditure on repair and maintenance of assets (Permanent way and works, bridges, tunnels, roads, sanitation and water supply etc. including plant and equipment) by Indian Railways during the year 2016-17 was ₹ 13016.62 crore[125]. Indian Railway also incurred an expenditure of ₹ 41679.07 crore[126] on creation of new assests such as new line, doubling, gauge conversion, traffic facility works, track renewal works, bridge works, level crossing and passenger amenities works. During the year, apart from regular audit of vouchers and tenders, 1280 offices of Engineering department including Construction Organization of the Railways were inspected by Audit.

This Chapter includes six individual paragraphs relating to undue favour to contractors, blocking up of capital in new line, gauge conversion and ROB works, short recovery of license fee, etc.

[125] Grant no.04 – Repair and maintenance of Permanent Way and works for 2016-17 and Minor Head 200 of Grant no.07 – repair and maintenance of plant and equipment

[126] Respective Plan Head of Grant no.16

3.1 Northern Railway: Undue favour to firm in awarding contracts by violating Railway Board's instructions on financial capacity and capability

A firm was awarded by contracts by Northern Railway Construction Organisation without examining its financial capacity and capability despite Railway Board's instructions and codal provisions. Railways favoured the firm by granting the extensions without penalty. The performance of the contractor was mentioned as 'satisfactory' in both the works and he was not made responsible for the delays while granting extensions. This adversely affected the progress of Doubling work between Meerut and Muzaffarnagar and resulted in non-achievement of intended benefit of increasing the line capacity for movement of freight and passenger traffic in the section.

As per rules[127], no work or supply should ordinarily be entrusted for execution to a contractor whose capability and financial status has not been investigated and found satisfactory. Railway Board, keeping in view several instances of failure of the earthwork contractors of important projects of New Lines, Doubling and Yard Remodelling etc., and to avoid the risk of such failures on the part of the contractors and consequent delay in completing the work, directed (December 1968[128]) the General Managers of all Indian Railways to pay special attention while deciding the tenders for earthwork contracts.

Railway Board during the Works Review Meetings (November 2003) with the Zonal Railways observed that the Tender Committees (TCs) were not examining the financial capacity and capability once the tenderer fulfils the Minimum Eligibility Criteria prescribed[129] by the Railway Board in October 2002, viz.

(i) submission of Revenue/Banker's Solvency Certificate (40 *per cent* of the Advertised Tender Value of Work)

(ii) completion of at least one similar single work for a minimum value of 35 *per cent* of the Advertised Tender Value of Work in the last three financial years (current year and three previous financial years), and

(iii) receiving of the contract amount of 150 *per cent* of the Advertised Tender Value of Work during the last three years

Railway Board, therefore, again issued directives (November 2003)clarifying that one of the important roles of the TC is to examine the financial capacity and capability of intending tenderer vis-à-vis the workload in hand in order to ensure that the tenderer can undertake and execute the new work successfully, if assigned to him.

Railway Board, in November 2013, amended the Clause 10 of the General Conditions of Contract. As per this Clause, 'the tenderer (s) shall be eligible, only if he/they fulfil Minimum EligibleCriteria of having received total contract

[127] Para 1215 of Indian Railway Code for Engineering Department
[128] Railway Board letter No.67/W5/RP2/5 dated 4-12-1968
[129] Railway Board letter No.94/CEI /CT/ 4 dated17-10-2002

amount during the last three financial years and in the current financial year with a minimum of 150 *per cent* of the advertised tender value'. Authentic/Attested Certificates from employer/client, audited Balance Sheet duly certified by the Chartered Accountant shall also be produced by the tenderer (s).

Work of doubling of 55 kms between Meerut and Muzaffarnagar was sanctioned by the Railway Board in August 2013. For exercising better quality control and proper monitoring/supervision, the doubling work was divided into two Zones viz. Zone I and Zone II by the executive agency i.e. Northern Railway Construction Organisation. Tenders for 'Earthwork in cutting, filling in embankment and other allied works'were invited (September 2013) under two packet system for both the Zones separately. M/s Dynasty Promoters Pvt. Ltd., Faridabad was found to be the lowest tenderer for both the works. As recommended by the TC, the contracts for Zone I and Zone II were awarded to this firm at cost of ₹ 23.42 crore and ₹ 26.21 crore in June 2014 and May 2014 respectively. Letters of Acceptance (LoA) were issued in June 2014 and May 2014 respectively with date of completion of work being 18 months in both the cases.

Review of the finalisation of tenders and contracts awarded in the above works revealed the following:

1. The firm M/s Dynasty Promoters Pvt. Ltd had submitted the same set of documents in respect of Plant and Machinery/resources available and credentials for proof of receiving of payments in both the tenders.
2. The advertised cost of the tender for Zone I and Zone II was ₹ 25.39 crore and ₹ 29.06 crore respectively. Hence, as per the Minimum Eligibility Criteria, the firm should have received ₹ 38.09 crore and ₹ 43.60 crore respectively during the last three financial years and current financial year.
3. In the tender documents for Zone I, the firm had mentioned that they had received payments of ₹ 38.66 crore. Whereas, in the tender documents for Zone II, the firm had mentioned that ₹ 51.49 crore were received by them during the same period. Scrutiny of details of payments of ₹ 51.49 crore claimed to have been received in ZoneII showed that it included the payments of ₹ 38.66 crore shown for ZoneI by the contractor. As such, the firm had received total payments of ₹ 51.49 crore during the last three financial years and current financial year, of which ₹ 38.66 crore was shown by the firm as amount received against both the tenders.
4. Tender Committee recommended acceptance of offer of M/s Dynasty Promoters Pvt. Ltd which was accepted by the competent authority (Chief Administrate Officer/Construction). As a result, two contracts having total value of ₹ 49.63 crore were awarded to a single firm which had received total payment of ₹ 51.49 crore during the prescribed qualifying period of last three financial years and current year (2010-11 to 2012-13 and current year

2013-14) against the financial criteria of receipt of payments of a value not less than 150 *per cent*of the advertised cost (150 *per cent* of ₹ 54.46 crore i.e. ₹ 81.68 crore) by an individual bidder during the same period.

5. The violation occurred despite the fact that
   - TC members and Tender Accepting Authority were same in both the tenders,
   - Opening date of both tenders was same i.e. 29 October 2013, and
   - TC meetings were held during the same period.
6. The firm had received a payment of ₹ 1.18 crore in financial year 2009-10. As per the Form 16A, this payment pertained to 2009-10. The firm, however, accounted for this amount as received in 2010-11, based on the date of issue of the certificate (21 September 2010). The TC also took into account this amount for the period 2010-11. Had this amount not considered by TC, the firm M/s Dynasty Promoters Pvt. Ltd would stand disqualified for ZoneI as the payment received would have been reduced to ₹ 37.48 crore (₹ 38.66 crore-₹ 1.18 crore) against the threshold prescribed criteria of ₹ 38.09 crore (based on Minimum Eligibility Criteriaof receiving payments of 150 *per cent* of the Advertised Tender Value of ₹ 25.39 crore in the last three financial years).
7. After dividing the work in two parts for better quality control and proper monitoring/supervision, both the works were awarded to the same contractor, which defeated the purpose of the decision.

From the above, it is evident that TC favoured the firm on three counts viz.

(i) Allowed same proof of receipt of payments in both the tenders simultaneously,

(ii) Considered the payment of ₹ 1.18 crore received by the firm beyond the qualifying period prescribed in the tender documents, and

(iii) Awarded both the works to a firm beyond its financial capacity and capability disregarding the Railway Board's directives.

In reply, NR Administration stated (November 2015) that (a) the date of payment of ₹ 1.18 crore (i.e. 21-09-2010) falls in the eligibility period (2010-11); (b) there was neither provision nor any formula for assessing the available bid capacity of the bidder, and (c) a new Bid Capacity Clause has now been introduced.

Audit, however, noticed that the date 21 September 2010 as shown in Form 16A was the date of issue of the same, for the financial year 2009-10. Also, the Certificate issued by Executive Engineer, Ministry of Transport and Highway, Chandigarh was issued on the basis of Form 16A. Railway Board has time and again stressed the need for examination of the financial capacity and capability of the tenderer by the TC. Therefore, non-inclusion of Bid Capacity Clause in

tender condition to ascertain the workload in hand of the firm was a lapse and violation of Railway Board' instructions.

Audit further observed that the progress of work was poor. Financial progress of Zone I and Zone II was only 49.12 *per cent* and 17.18 *per cent* respectively till February 2016 and October 2015, whereas the date of completion was 19 December 2015 and 25 November 2015 respectively. NR Administration also favoured the firm by granting the extensions without penalty. The performance of the contractor was mentioned as 'satisfactory' in both the works and the contractor was not made responsible for the delays while granting extensions. Both the contracts were foreclosed and final payment of ₹ 14.87 crore for ZoneI and ₹ 13.33 crore for Zone II was made to the firm in March 2017 and April 2017 respectively. No fresh contract was awarded to undertake balance work (July 2017).

Thus, the decision of TC to award the contracts to a firm without examining its financial capacity and capabilities indicated undue favour to the firm. Not only, Railway Board's instructions for tender processing were disregarded in this case, but it also adversely affected the progress of the works. The intended benefits of increasing the line capacity for movement of freight and passenger traffic was also not achieved.

The matter was brought to the notice of Railway Board on 3 October 2017. In their reply, Ministry of Railways, stated (23 February 2018) that there was no provision in tender notice/conditions to assess the financial capacity and capability of the lowest tenderer based on the combined value of two tenders, in which the same tenderer was the lowest. Also, there was no formula provided in the tender document for assessing bid capacity of lowest tenderer based on the work executed in the past and works in hand. However, with effect from October 2015, a new Bid Capacity Clause along with formula has been introduced to assess the residual capacity of tenderer. As per this clause, if the available bid capacity is equal to or more than estimated cost of present work, the tenderer has to furnish the details of existing commitment and ongoing works. The Ministry further stated that the contractor had received a payment of ₹ 1.18 crore on 21 September 2010 i.e. financial year 2010-11 which falls in the eligibility period i.e. 1 April 2010 to 29 October 2013.

Audit observed that though the Northern Railway Construction organisation has introduced a new Bid Capacity Clause and formula for assessing bid capacity of lowest tenderer, the issue of assessment of the financial capacity and capability of the lowest tenderer, if the same tenderer found to be the lowest in more than one tenders opened during same time, was yet to be resolved. As per tender conditions, the payments received for works completed during the last three years and up to the date of opening of tender was required to be not less than 150 *per cent* of the advertised cost of work. In this case, though the payment of ₹ 1.18 crore was received on 21 September 2010, the same was in respect of work done in the year 2009-10 and, thus, was not eligible for arriving

at the financial eligibility criteria. For maintaining transparency in tendering and awarding the contracts, the Ministry needs to clarify whether the payments received for the work pertaining to the period prior to qualifying period would be considered for arriving at the financial eligibility criteria.

3.2 East Central Railway (ECR): Blocking-up capital in execution of Gauge Conversion work

Railway Administration failed to complete pre-mega block works in connection with Gauge Conversion projects which was to be completed in advance as per Railway Board's guidelines. Besides, poor execution and inefficient contract management on part of Railway Administration was noticed in other civil works which led to delay in completion of Gauge Conversion project and blockage of capital of ₹ 47.98 crore. The overall cost of civil works in the GC project also increased by ₹ 551.68 crore due to price escalation.

Railway Board formed (August 2004) a Committee to study the reasons for inordinately long mega block time for Gauge Conversion Works and means and ways to carry out the works of Gauge Conversion in about a months' block time[130]. Based on the study Railway Board issued instructions (May 2005) that the works in connection with Gauge Conversion (GC) projects such as earthwork, minor bridges and certain major bridges on diversions should be started two to three years in advance and completed before the block. Further, Railway Board viewed that it will be desirable to complete all the works in a mega block of not more than 60 days, although 30 days would be ideal.

The GC work of Sakri-Nirmali and Jhanjharpur-Laukaha bazar section (94 km) over Samastipur Division of ECR was included in the budget for 2004-05. The detailed estimate of the work (including GC work of Saharsa- Forbesganj section) was sanctioned by Railway Board at a cost of ₹ 372.14 crore in February 2008. Of this, a cost ₹ 325.44 crore was for civil works, the scope of which included earthwork, blanketing, construction of major and minor bridges, ballast formation, track linking etc.

Audit of records of the above GC project revealed that up to January 2017, ECR awarded 28 contracts for the civil works of this project. These included separate contracts for rebuilding of major bridges (super-structure), rebuilding of pile foundation of bridges (sub-structure), construction including rebuilding and widening of minor bridges, soil exploration and earthwork in formation and construction of bridges, supply and fabrication of girders for bridges, construction of station building, approach road, yard etc. and construction of siding. The status of these projects along with requirement of block is given below:

[130] Block is a time given by operating department to the project/contract executing department to carry out works at the railway tracks, during which the traffic in the selected section is suspended.

Table 3.1 – Status of 28 works			
Requirement of block	**Completed works**	**Ongoing works**	**Foreclosed/ terminated works**
No block required	4	3	2
Block required partially	-	6	5
Block required	-	3	5
Total	**4**	**12**	**12**

Out of these 28 contracts

- Only four were completed between December 2010 and July 2014 at a total expenditure of ₹ 15.29 crore.
- Twelve contracts, awarded between April 2009 and January 2017 with date of completion/extended date of completion between June 2017 and February 2018, were under-execution stage. Out of these 12 contracts, six contracts required mega block partially and three contracts did not require mega block. The works not requiring mega-block were required to be completed in advance as per Railway Board's directives of May 2005. However, the same was not ensured.
- The remaining 12 contracts were terminated/fore-closed between August 2013 and February 2017. A total expenditure of ₹ 32.69 crore were incurred on seven contracts up to February 2017, whereas in five terminated/fore-closed contracts, the financial progress were nil.

Audit examined fore-closure/termination of the above 12 contracts and observed that

- Five contracts related to earthwork formation, rebuilding/construction/ jacketing of minor bridges, rebuilding of major bridges etc., were fore-closed/terminated due to non-availability of mega block. These contracts were awarded between July 2009 and January 2013 and to be completed by September 2013, which were terminated/fore-closed up to February 2017. Out of these five contracts, four contracts were fore-closed after three to four years from the date of award of contract after incurring expenditure of ₹ 23.14 crore. The physical progress on these contracts ranged between 35 and 88 *per cent*. In the remaining one terminated contract, physical and financial progress was nil**.** It was also noticed that though the works were awarded between July 2009 and January 2013, demand for mega block was not raised by the Construction department up to August 2014, which was allotted in April 2016 and September 2016 for part sections. Further, mega block for the entire section was given in May 2017 after closure of all the five contracts. As such, due to lack of coordination between the construction and operating departments, the contracts were terminated/ fore-closed after incurring an expenditure of ₹ 23.14 crore.

- Three contracts related to rebuilding of major bridges and provision of siding, were fore-closed due to change in plan and scope of work and designs of bridges after award of contract. Of these contracts an expenditure of ₹ 0.46 crore was incurred till the date of fore-closure.
- The remaining four contracts were terminated due to failure of contractors to complete the work and also due to failure on part of the contractors to apply for extension of date of completion. Three contracts, where financial progress remained nil till date of fore-closure, were terminated after more than three years of award of contracts. All the three contracts were awarded to the same firm M/s Ma Kali Construction. This indicate deficient monitoring in execution of contracts.

From the above, it can be concluded that the pre-mega block works in respect of Gauge Conversion project, which should be completed as per a pre-determined plan two to three years in advance of mega block, could not be completed even after lapse of nine years from the date of sanction of detailed estimate. Further, contracts were fore-closed/terminated on the ground of non-availability of mega block. The firms failed to start the work even after the scheduled date of completion and action was taken by the railways to terminate/ foreclose the contract after significant delays.

Audit also observed that due to delay in completion of project, the revised estimate also increased (July 2013) to ₹ 1250.86 crore (including cost ₹ 1109.16 crore of civil works) mainly due to price escalation and enhancement in quantities as per latest planning of P-way works, embankment and elimination of Level Crossing gates. As such, the proposed revised estimate of the project the cost of Civil Engineering Department increased (September 2013) by ₹ 783.72[131] crore against the sanctioned (February 2008) detailed estimate cost of ₹ 325.44 crore in which ₹ 551.68 crore (71 *per cent* of increased cost) was on account of price escalation. Besides, work done in the four completed contracts at a cost of ₹ 15.29 crore and the works executed at the cost of ₹ 23.14 crore in the five foreclosed/terminated works also remained unfruitful.

Thus, poor execution and inefficient contract management of civil works led to delay in completion of the GC Project and resulted in blockade of capital of ₹ 47.98 crore[132] besides increase in cost of civil works by 71 *per cent*.

The matter was brought to the notice of Railway Board on 11 October 2017; their reply is awaited (28 February 2018).

[131] ₹ 1109.16 crore (proposed revised estimate of Civil Works) – ₹ 325.44 crore (sanctioned detailed estimate of Civil Works)
[132] ₹ 15.29 crore on four completed works + ₹ 32.69 crore on seven terminated/fore-closed contracts

3.3 East Central Railway (ECR): Deficient planning and execution of contracts related to New Line project

In the New Line project from Hajipur to Sagauli (148.3 kms), parts of the project got delayed and four out of five contracts had to be terminated/foreclosed. Subsequently, ECR Administration took a decision to first complete the work up to Vaishali for better use of resources and decided to foreclose all the existing contracts beyond Vaishali. However, deviating from this decision, terminated contracts were re-awarded at a cost of ₹ 86.14 crore, thereby committing investment without completing the work up to Vaishali.

The construction of new BG Line from Hajipur to Sagauli stations (148.3 kms) was announced in Budget 2003-04. Railway Board sanctioned detailed estimate of ₹ 528.65 crore for the project in October 2007.

During the review of records of contracts awarded by ECR Administration for the new BG line Hajipur-Sagauli project, Audit observed that contracts were awarded without ensuring completion of pre-contract works such as soil test, site investigation, approval of all plans, drawings and estimates by competent authority, handing over the site etc. as per the instructions of Railway Board of February 1989. Even after more than nine years from the year of sanction (October 2007) of detailed estimate of the project, the project remained to be completed.

For execution of the New Line project, five contracts were awarded between October 2008 and May 2010 at a total cost of ₹ 82.63 crore for earthwork and construction of major/minor bridges up to 81.963 kms of new line. Out of these five contracts, only one contract could be completed (February 2016) with the delay of about 70 months. The remaining four contracts were terminated/ fore-closed. The reasons for termination/ fore-closure were as follows:

i. Two contracts from 0 km to 15.00 kms (before Vaishali) were awarded (December 2008 and January 2009) at a total cost of ₹ 10.73 crore[133] with a completion period of 18 months from the date of issue of LoA. These contracts were terminated (June 2015 and August 2015) due to slow progress of work by the contractor after incurring expenditure of ₹ 3.27 crore[134] on incomplete works. The physical progress of works in these contracts was 28 and 38 *per cent* respectively. Audit also noticed that 10 to 11 extensions were given for these contracts mainly due to non-availability of full work site, delay in fixation of final alignment, non-availability of bridge drawing as per latest decision and naxalite problem. The left over works were awarded (December 2015) at additional cost at ₹ 9.13 crore. The contractor had been paid ₹ 6.75 crore for increased cost of the work.

ii. The other two contracts from 41.963 kms to 81.963 kms (beyond Vaishali) were awarded (February 2010 and May 2010) at a total cost of ₹ 49.73

[133] ₹ 4.53 crore for 1st contract + ₹ 6.20 crore for 2nd contract
[134] ₹ 1.37 crore for 1st contract + ₹ 1.90 crore for 2nd contract

crore[135] with date of completion for 18 months from the date of issue of LoA. These were foreclosed in March 2015 and July 2016 after giving 5 to 6 extensions in completion period due to reasons such as revision of drawings, non-availability of hindrance free site, naxalite problem etc. The physical progress of work in these contracts was 17 to 27 *per cent* respectively.

Audit observed that while the works of the above new line project were going on, ECR decided (January 2015) to commission the new line section up to Vaishali (up to 39 kms length) first by utilizing available resources and putting to use the invested money in the first phase. They decided to foreclose all the existing contracts beyond Vaishali. They further stated that after the train becomes operational or on the verge of completion of work up to Vaishali, works for stretches beyond Vaishali would be executed. They decided that no contract should be awarded to work beyond Vaishali (*in lieu* of closure of contract) till such time the track linking works etc. up to Vaishali were almost completed. As such, the contracts beyond Vaishali were foreclosed (March 2015/July 2016) after incurring an expenditure of ₹ 10.06 crore on the work executed till that date.

Audit further observed that, disregarding the above decision, ECR floated tenders (July 2016 and November 2016) and awarded (October 2016 and February 2017) contracts for the left over works of the foreclosed contracts to two separate agencies at a cost of ₹ 86.14 crore. Audit noticed that as of November 2016, the physical progress of the work up to Vaishali (from Ghoswar to Vaishali, 5.5 kms to 36.2 kms) was not up to the mark (overall physical progress of 58 *per cent* on new line project), acquisition of 24.08 acres of land was yet to be done; 2.5 lakh cum earthwork and 0.6945 lakh cum of blanketing work, work of 10 out of 44 minor bridges and work of seven out of the 13 Road Under Bridges was yet to be done; no ballast work was done; 21 kms out of 30.4 kms of formation work and 34.87 kms out of 38.45 kms of track linking work was not done.

As such, the action taken by ECR Administration to re-award the foreclosed contracts beyond Vaishali (39 kms length) was not justifiable keeping in view the fact that the work up to Vaishali had still not reached an advanced stage. The action defeated the purpose of decision taken to first complete the new line up to Vaishlai, optimizing use of resources. It could not be ascertained as to whether issues related to hindrance free site and naxalite problems etc. had adequately been taken care of before awarding the works.

The matter was brought to the notice of Railway Board on 17 October 2017; their reply is awaited (28 February 2018).

[135] ₹ 22.54 crore for 1st contract + ₹ 27.19 crore for 2nd contract

3.4 Northeast Frontier Railway (NFR): Blocking up of capital due to construction of a Road Over Bridge without ensuring encumbrance free land

Between Mathabhanga and New Coochbehar Station on State Highway No. 12A of West Bengal, a Road Over Bridge (ROB) was constructed without ensuring encumbrance free land for the approach road. Due to incomplete approach road the ROB could not be commissioned even after four years of its construction resulting in blocking up of capital of ₹ 20.03 crore.

Railway Board issued directives in August 1980 to award contracts for works only after site investigation have been completed, all plans, drawings and estimates were duly approved and there is no hitch in handing over the site to the contractor. This was further reiterated in February 1985 that for bridge work and accommodation works such as level crossings, road over bridge etc. a close liaison should be maintained with the concerned local authorities, so that there is no cause for subsequent changes which may enhance the cost of the project substantially. It was also stated that Railway Administration should decide calling of tenders only when they are fully prepared to hand over the site and supply the plans etc. to the contractor.

In execution of New Maynaguri-Jogighopa Broad Gauge New Line project, Construction Organisation of NFR awarded the work (May 2010) at a cost of ₹ 6.93 crore for construction of Major ROB and Minor RUB[136] along with other ancillary works between Mathabhanga and New Coochbehar Station on State Highway No. 12A of West Bengal. The work was scheduled to be completed within nine months from signing of the contract (May 2010 to February 2011). Audit observed that though the work was awarded in May 2010, the General Arrangement Drawing (GAD) was changed twice before finally obtaining final approval from the State Government of West Bengal five years later (May 2015). The construction of bridge proper was completed in June 2013, much before obtaining approval from the State Government. It was also seen that there were encroachments on a stretch of land belonging the State Public Works Department on which the proposed approach road to the ROB was to be constructed. Despite being aware of the fact, Construction Organisation went ahead and not only awarded the work for construction of ROB and RUBs in May 2010, but also awarded contracts for two more works. These works were 'Development of diversion road for ROB' valuing ₹ 1.96 crore and another for 'Retaining wall on approach road' valuing ₹ 6.47 crore in March 2012 and November 2012[137] respectively. These works were to be completed by April 2012 and March 2013 respectively.

Audit observed that in respect of the first work, an amount of ₹ 9.58 crore was paid as final settlement. In respect of the remaining two works, up to May 2017, an expenditure of ₹ 2.17 crore and ₹ 8.28 crore respectively was incurred, yet

[136] Major ROB no.1/39 (1 x 12.20 PSC slab) on pile foundation at km 87.520 and RCC minor RUBs in lieu of level crossings, contract agreement executed in September 2010

[137] Contract Agreements were executed in June 2012 and February 2013 respectively

significant amount of work was still to be done. There was no progress in the status of work thereafter. Thus, against a total contractual amount of ₹ 15.36 crore, till now an expenditure of ₹ 20.03 crore has already been incurred for construction of ROB. However, due to encroachments, the work of approach road to the ROB was yet to be completed and an amount of ₹ 20.03 crore incurred on these works remained blocked. Meanwhile, being unable to put the ROB in use and under pressure for commissioning the New Changrabandha-New Coochbehar section of the project by the targeted period of March 2016, the Construction Organisation of NFR had to provide a manned level crossing gate adjacent to the incomplete ROB.

In reply, NEFR Administration stated (February 2016) that while planning a long work it is presumed that the small stretch of land can be acquired during the process of work. They further stated that the ROB will be useful after execution of the balance work and that a temporary Level Crossing Gate has been provided to reap the benefit of investment made by the Railway and after the completion of work of ROB, the gate will be closed permanently.

However, NFR Administation did not follow Railway Board's directives and due to encroachment, the work of construction of ROB could not be completed seven years after taking up the work of ROB. This resulted in blocking up of capital to the tune of ₹ 20.03 crore.

The matter was brought to the notice of Railway Board on 24 October 2017; their reply is awaited (28 February 2018).

3.5 Western Railway (WR): Non-recovery and short recovery of capitalized maintenance charges in respect of ROB works executed on 'Deposit Terms'

As per the codal provision and Railway Board's directives Zonal Railways are required to recover capitalised maintenance charges of ROBs executed on deposit terms. These instructions were not followed by WR Administration, bills for ₹ 25.65 crore against six parties were not raised and recovered by Construction Organisation, Ahmedabad and ₹ 5.11 crore were short-recovered from four parties in Ratlam Division.

As per codal provision[138] all Deposit works in Railway premises should be maintained by the Railway Administration concerned at the cost of the parties who applied for them. Charges for maintaining (keeping in good repair) Deposit works should be recovered on the basis of either

1. A fixed percentage of the cost of the works, the rate being fixed by the General Manager (GM); or
2. Actual expenditure (including departmental charges).

The provision further states that in every case, before commencement of the Deposit works, capitalized value of maintenance charges and cost of extra establishment, if any, should be recovered in full.

[138] Para 1851 of Indian Railway Code for Engineering Department

Railway Board directed (February 2002) that in case of Road over Bridges (ROBs) constructed *in lieu* of level crossings, maintenance charges at the rate of three *per cent* per annum, capitalized to 30 *per cent* shall be levied. In July 2012, Railway Board revised the earlier directives and advised that in case of ROB/RUB sanctioned on deposit terms, instead of levy of maintenance charges at the rate of three *per cent* capitalized to 30 *per cent*, Railways should follow the instructions contained in the above codal provision. It also stated that capitalized maintenance charges should be calculated on cost of bridge proper (excluding Road ways) and reasonable cost of maintenance should be derived on the basis of actual maintenance cost.

Audit observed that Ahmedabad Division of WR did not include the capitalized maintenance charges at the prescribed rate of three *per cent* in the estimates of five ROB works costing ₹ 28.06 crore sanctioned prior to July 2012. Audit further noticed that capitalized maintenance charges to be worked out on actual cost basis, was also not included in the estimates of three works costing ₹ 68.91 crore sanctioned after July 2012. Due to this failure, WR could not recover the capitalized maintenance charges of ₹ 25.65 crore in respect of ROBs sanctioned during June 2008 to January 2014 from six parties[139].

In reply, Construction Organisation of WR stated (March 2016) that there was no practice in Construction Organization to recover maintenance charges in deposit works and open line authorities have been requested to recover these charges from the party. On the other hand, open line authorities stated (January 2017) that bill could not be raised for want of documents required for raising of maintenance bills by Engineering Department and completion report/drawings from construction organization. Thus, there was lack of coordination between the two departments, as a result of which, bills for maintenance charges were not raised and ₹ 25.65 crore could not be recovered in respect of eight ROBs work on deposit terms in Ahmedabad Division.

Audit also reviewed the records of Ratlam Division, where five ROB works costing ₹ 38.19 crore were sanctioned (during July 2008 to June 2014). It was seen that maintenance charges were calculated taking into account only 'supervision charges', 'civil engineering cost', instead of total cost of bridge portion of ROBs. This led to incorrect computation of maintenance charges and consequent short-recovery of ₹ 5.11 crore from the four parties[140].

Thus, WR Administration failed to ensure compliance with the codal provisions and Railway Board's directives in regard to recovery of maintenance charges in respect of ROB works on deposit terms. This resulted in non-recovery of ₹ 25.65 crore and short recovery of ₹ 5.11 crore towards capitalized maintenance charges of ROBs executed on deposit terms.

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[139] Ahmedabad Municipal Corporation; Vadodara Municipal Corporation; Himmatnagar Nagar Palika,; Managing Director GSRDS, Gandhinagar; Executive Engineer (Roads & Bridges), Surat; Executive Engineer (Roads & Bridges), Mehsana

[140] Public Works Department, Bhopal; Madhya Pradesh Road Development Authority, Bhopal; Indore Development Authority, Indore; Public Works Department (Branch) construction, Madhya Pradesh

The matter was brought to the notice of Railway Board on 18 September 2017. In reply, Railway Board stated (16 November 2017) that bills up to 2017-18 have been raised by Ahemdabad and Vadodara Divisions in five cases, in three cases the amount would be recovered from the State Government and in Ratlam Division, the amount would be recovered from the respective parties.

3.6 Central Railway (CR): Short recovery of land license fee from CONCOR

Central Railway accepted the license fee paid by the CONCOR without reconciling the actual number of TEUs handled by them at six depots. This led to short recovery of license fee of ₹ 9.16 crore from CONCOR.

Indian Railways licenses railway land to Container Corporation of India (CONCOR) for setting up the Inland Container Depots. In Central Railway, CONCOR has six container depots located at Mulund, Chinchwad, Turbhe, Bhusawal, Miraj and Nagpur. As per the Lease Agreements executed (in the year 2002) between Central Railway and CONCOR, the latter had to pay land license fee on the basis of actual number of containers dealt with by CONCOR at the prescribed rates subject to renewal of agreement every five years. In January 2008, Railway Board while revising the rate of license fee for the railway land licensed to CONCOR, fixed the rate of license fee[141] at ₹ 500 per TEU[142]. The rate of licence fee was revised to ₹ 920 per TEU with effect from 1 April 2016.

An audit observation on non-maintenance of the records by the Central Railway Administration relating to number of containers handled in the container depots and acceptance of the lease charges as paid by CONCOR was printed in Para 2.1.8.11 of Report No. 34 of 2010-11 (Railways). Subsequently, in order to streamline the billing and collection of land license fee from CONCOR, CR Administration issued a Joint Procedural Order (JPO) in July 2012. In the JPO, the role of Commercial and Engineering Departments of CR and CONCOR, periodical submission of the details of TEUs handled by CONCOR etc. were stipulated.

While examining the records relating to the land license fee paid by CONCOR to Central Railway, during 2010-11 to 2015-16, Audit observed the following:

1. As per the JPO (of July 2012), the Commercial Department would prepare a list of Outward/ Inward TEUs handled during the month on the basis of Railway Receipts (for outward traffic) and Invoices/Inward Release Memos (for inward traffic). Further, CONCOR would send the details of all the TEUs handled in the month by 5th of the following month to Engineering Department (Divisional Engineer/Land Management's Office). On receipt of information, the Engineering Department would prepare a bill for the month and send the same to Accounts Department (Senior Divisional Finance Manager's Office) for raising the bill against the CONCOR. On receipt of bill for, CONCOR would make payment of half yearly basis.

[141] Effective from 01-10-2007
[142] Twenty feet Equivalent Unit

It was observed that the procedure laid down in the JPO for billing and collecting license fee was not being followed by the Commercial and Engineering Departments of Central Railway. Also, the details of TEUs handled in its depots were not being provided to the Engineering Department by CONCOR.

2. As per their website, CONCOR handles 10,20,369 TEUs at its six depots in Central Railway during 2010-11 to 2015-16. Against this, CONCOR paid license fee was to Central Railway in respect of 8,37,209 TEUs only. Thus, there was short recovery of license fee amounting to ₹ 9.16 crore in respect of 1,83,160 TEUs.

After audit raised the issue in January 2017, CR Administration directed (February 2017) the Engineering Department to reconcile the actual TEUs handled by CONCOR and to recover balance license fee. However, no further progress in the matter was made by the CR Administration. Thus, acceptance of license fee paid by the CONCOR without reconciling the actual number of TEUs handled by the CONCOR in its depots resulted in short recovery of license fee of ₹ 9.16 crore during 2010-11 to 2015-16.

The matter was brought to the notice of Railway Board on 12 December 2017; their reply is awaited (28 February 2018).

Chapter 4

Traction

Member Traction at Railway Board is overall in charge of the Electrical department of Indian Railway. He is also responsible for Railway Electrification Workshops (exclusively for locomotives) and Energy/Fuel Management.

At Zonal level, Chief Electrical Engineer (CEE) is responsible for operation and maintenance of Electric Locos, Electric Multiple Unit train (EMU), Mainline Electric Multiple Unit train (MEMU), maintenance and operation of Overhead Electrical Equipment (OHE), electrical coaching stock etc. Maintenance of Diesel locomotives is supervised by Chief Motive Power (Diesel). Production Units Chittaranjan Locomotive Works (CLW) and Diesel Locomotive Works (DLW) are managed independently by General Managers reporting to Member Traction at Railway Board.

The total expenditure of Indian Railways on repair and maintenance of Motive Power (including plant and equipment) and expenditure on fuel (diesel and electricity) during the year 2016-17 was ₹ 8338.88 crore[143] and ₹ 26427.26 crore[144] respectively. An expenditure of ₹ 263.79 crore[145] was incurred in production units of locomotives during the year 2016-17. During the year, apart from regular audit of vouchers and tenders, 407 offices of Electrical department including CLW and DLW were inspected by Audit.

This chapter includes one long paragraph on 'setting up of diesel locomotive manufacturing unit at Marhowra, Bihar'. In addition, this chapter also includes two individual paragraphs highlighting issues of utilization of diesel locos in completely electrified routes and incorrect fixation of contract demand.

[143] Grant no.05 – Repair and maintenance of Motive Power for 2016-17 and Minor Head 400 of Grant no.07 – repair and maintenance of plant and equipment
[144] Grant no.10 – Operating Expenses – Fuel for 2016-17
[145] DLW, Varanasi, DMW, Patiala and CLW, Chittaranjan

4.1 Railway Board: Setting up of diesel locomotive manufacturing unit at Marhowra, Bihar

Ministry of Railways proposed setting up of diesel locomotive manufacturing unit at Marhowra, Bihar in September 2006. The contract was awarded to M/s GE Global Sourcing India Pvt. Ltd in November 2015 for setting up of diesel locomotive manufacturing unit along with maintenance depot at Roza and Gandhidham. As a long time has elapsed, there was a need to reassess the necessity of setting up of new diesel locomotive manufacturing unit, before awarding the contract. Audit analysis showed that the diesel locomotives available with the Railways are sufficient in numbers to take care of the present needs. Indian Railways is planning to shift to complete electrification of its BG routes by 2021 and would also run the freight trains in dedicated freight corridors (DFCs) on electrified routes. Even if, Railways do not go for 100 per cent electrification, it is expected that most of the high traffic routes would definitely be electrified and the need for diesel traction would remain only for low traffic routes, for which high horse power diesel locos are not likely to be used optimally. Consequently, need for high power diesel traction in Indian Railways is going to diminish in the years to come. Indian Railways has realised this eventuality and decided to significantly reduce the production of diesel locomotives at Diesel Locomotive Works (DLW), Varanasi from 2018-19 onwards. Also, the production plan of Diesel Loco Modernisation Works (DMW), Patiala, does not include any plan for production of diesel locomotive in 2018-19. As such, the diesel locomotives procured under this agreement would have no scope for productive utilisation in the Indian Railway network in future. Railways themselves have decided to significantly reduce in-house production of diesel locomotives at DLW, Varanasi from 2019-20 onwards. Thus, setting up of a new infrastructure for production of diesel locomotives and incurring a huge liability of ₹ 17126.08 crore is not in sync with the overall strategic vision of Railways. Railways need to revisit the decision of setting up of the new factory for production of diesel locomotives and examine whether it will be prudent to create assets and infrastructure for which Railways has no useful requirement in future, when they have planned for large scale electrification and have also reduced considerably their own in-house production of diesel locomotives.

Minister of Railway in his Budget Speech for 2006-07[146], announced setting up of a new Diesel Locomotives Factory at Marhowra, Bihar, for meeting the requirements of Indian Railways including the requirement of locomotives for Dedicated Freight Corridor. Railways proposed (September 2006) setting up of this unit in order to meet the additional requirement of locomotives in view of various line capacity works being undertaken including the Dedicated Freight Corridor. At that time, Diesel Locomotive Works (DLW), Varanasi was the sole diesel locomotive building plant in the country with a capacity to build 150

[146] during monsoon session

diesel locomotives per year with an expandable capacity of 200 locomotives per year. A requirement of 350 diesel locomotives per year was assessed by Indian Railways till the end of 2017. Keeping in view the assessed capacity of 200 locomotives at DLW, Varanasi, a new diesel locomotive manufacturing facility with a capacity of 150 HHP locomotives per year was proposed (September 2006) at Marhowra, Bihar. The capital cost of the project was ₹ 2106.66 crore. The project was notified as Special Railway Project on 19 February 2008.The project was targeted for completion by 2011-12.

The main objectives for setting up of this unit were as follows:

- To bridge the demand supply gap and to create facilities for manufacture of 150 diesel locomotives per year,
- Creation of facilities for manufacture of state of the art high horsepower diesel locomotives to meeting traffic requirements, and
- To derive benefits of the latest technological developments to reduce unit cost with better fuel efficiency, maintainability and higher reliability.

Indian Railways finalised a joint venture partnership project through international competitive bidding for manufacture and supply of modern diesel electric locomotives of 4500 HP and 6000 HP. The Request for Proposal (RFP) was issued to two short listed bidders at Request for Qualification (RFQ) stage on 11 March 2015. The bid was opened on 1 September 2015 and the project was awarded to M/s GE Global Sourcing India Pvt. Ltd (hereinafter referred to as the *Company*) for setting up of Diesel Locomotive Factory (DLF) at Marhowra, Saran District, Bihar and production and maintenance of mainline diesel electric locomotives on 6 November 2015. The project involved setting up of a diesel locomotive factory at Marhowra and maintenance depot at Roza and Gandhidham. The company was to work on an assured off-take model of 100 locomotives per annum for 10 years, starting from third year from appointing date (November 2015)[147] i.e. from November 2018. The basic cost of these 1000 freight locos would be around ₹ 14,656 crore. The company would also maintain a few of these locomotives up to 13th year. Thereafter, Indian Railways would take over maintenance of these locomotives. As on 31 March 2017, the physical progress of 30 *per cent* and financial progress of five and a half *per cent* was achieved.

Requirement of diesel locomotives in current scenario

The proposal for setting up of the Diesel Locomotive Factory was mooted in September 2006 and initially the expected date of completion of the project was 2011-12. The agreement for setting up of Diesel Locomotive factory, Marhowra, Bihar was finalized in November 2015 i.e. after more than eight years. During 2007-08 to 2015-16, 2117 new diesel locomotives were added to the fleet of Indian Railways (1325 of these were 4000 HHP to 5000 HHP), which were not

[147]Para 14.5.1 of the Agreement

taken into consideration while awarding the contract to the Company in November 2015. Meanwhile, during the past few years, important policy decisions have been taken by the Ministry of Railways, regarding the pace of electrification in the railways, which have a significant impact on the requirement of diesel locomotives in Indian Railways in the coming future and number of diesel locomotives required would come down drastically.

Audit observed that the assessment of requirement of diesel locomotives projected in the Budget speech of 2006-07 was not reviewed at the time of finalization of agreement in November 2015. Detailed audit observations are discussed below:

a. Electrified Dedicated Freight Corridors

The projected requirement of locomotives in the estimate of setting up of new Diesel locomotive factory, Marhowra, Bihar included projected utilization of diesel locomotive on the Dedicated Freight Corridor (DFC) routes. Under the Eleventh Five Year plan of India (2007-12), Ministry of Railway started constructing a new Dedicated Freight Corridor in two routes viz., the Eastern and Western Freight Corridors. The two routes covered a total length of 3360 kms, with the Eastern Dedicated Freight Corridor stretching from Ludhiana in Punjab to Dankuni in West Bengal and the Western Dedicated Freight Corridor from Jawaharlal Nehru Port in Mumbai (Maharashtra) to Dadri in Uttar Pradesh. Upgradation of transportation technology, increase in productivity and reduction in unit transportation cost are the focus areas for the project. The mandate of the company implementing this project, Dedicated Freight Corridor Corporation of India Ltd. (DFCCIL), is heavy haul train operation with electric traction with 13 minute head way;4500/6500 tonne and 9000/13000 tonne trains in the ratio of 2:1, Speed of 100 kmph, deployment of high horse power locomotive (9000/12000 HP). Both the corridors, Western Corridor[148] of 1504 kms and Eastern Corridor[149] of 1856 kms are being set up for operation on electrified routes.

In view of completely electrified DFCs, the projected assessment of requirement of diesel locomotives should have been done afresh, as there is no requirement of the diesel locomotive on completely electrified DFC routes.

b. Electrification of existing and new broad gauge routes

A blue print for Railway electrification in the Vision 2020 Document was issued by Ministry of Railway in December 2009, wherein it was stated that 33000 kms of railway routes would be electrified by March 2020. The blue print contained the list of routes that were to be taken up for electrification in future. By 31 March 2016, 27,999 RKMs out of 58,825 RKMs had been electrified, 12,710

[148]Rewari-Vadodara (963 kms), Vadodara-JNPT (430 kms), Rewari-Dadri (127 kms) – Fully electrified double line section
[149]Khurja-Bhaupur(343 kms), Bhaupur-Mughalsarai (402 km), Khurja-Ludhiana (401 kms), Khurja-Dadri (46 kms), Mughalsarai-Sonnagar (126 kms) and Sonnagar-Dankuni (538 kms) - 447 kms of Ludhiana- Dhari - Khurja section with single electrified track and remaining line will be double track electrified up to Dankuni in West Bengal

RKMs had been included in the Works Programme and the remaining 18,116 RKMs were yet to be sanctioned. In August 2016 (nine months after signing of the agreement for assured off take of the 1000 diesel locomotives and setting up of the Diesel Locomotive Factory at Marhowra) the target of electrification was revised by Railway Board to cover 24,427 RKMs under electrified route by 31 March 2021. This included 12,710 RKMs in progress and 11717 RKMs (out of 18116 RKMs) of missing links between already electrified sections. Ministry of Railway decided to engage public sector undertakings viz., Indian Railway Construction Organisation Co. (IRCON), Rail India Technical and Economic Services Limited (RITES)(Railway's PSUs)and Power Grid Corporation of India Limited (PGCIL)(PSU under the Ministry of Power)having expertise in laying the transmission lines in India and abroad.The status of electrification of BG routes and availability of diesel and electric locomotives in Indian Railways during the past ten years was as follows:

Table 4.1 – Year-wise total route kilometers and electrified route kilometers in Indian Railways

Year	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*	*2012-13*	*2013-14*	*2014-15*	*2015-16*	*2016-17*
Electrified (RKM)	18145	18942	20059	21034	22224	23541	24891	26266	27999	30012
Total (RKM)	63273	64015	63974	64460	64600	65436	65808	66030	66687	67368

The pace of electrification in Indian Railways has increased and as on 31 March 2017, 45 *per cent* of BG routes have been electrified in Indian Railways. Subsequently, in September 2017, Ministry of Railways have decided to have 100 *per cent* electrified routes over Indian Railways. The action plan for Railway electrification against this target of 100 *per cent* electrification includes preparation of detailed project reports by October 2017, preparation of designs and drawings by the Zonal Railways by Dec 2018, finalisation of bid document by May 2018 and award of contract by June 2018. Capacity assessment should be done by RDSO and CORE and the vendor base should be expended so that 33000 RKMs electrification can be achieved in next three years. Public Sector Undertaking have been advised to ramp up their progress of Railway Electrification works for achieving the objectives of mission 100 *per cent* Railway electrification of Indian Railway network within next three years. General Managers of various Zonal Railways have sent 107 proposal for 100 *per cent* electrification of all BG routes of Indian Railway to Railway Board for approval. In order to expedite the electrification work, Railway Board has issued directions for keeping ready, all the prerequisites like detailed survey, drawing/plans and other related documentation pertaining to these routes, for making a part of tender document, so as to immediately take up the work.

In addition Railway Board has also decided (July 2017) that all New lines, Doubling and Gauge Conversion projects should be inclusive of electrification.

Audit observed that at the time of finalization of agreement for this project (November 2015), the issues mentioned in Blue print 2009 and future planning

of consideration for electrification of Railway routes, were not taken into consideration for assessment of requirement of diesel locomotives required in Indian Railways. The decision of the Ministry of Railways to go for 100 *per cent* electrification of all BG routes and directions issued to all stakeholders to putting concerted efforts to achieve the same, indicate that Indian Railways plans to run its passenger and goods trains only on electrified routes after 2021. Even if, Railways do not go for 100 *per cent* electrification, it is expected that most of the high traffic routes would definitely be electrified and the need for diesel traction would remain only for low traffic routes, for which high horse power diesel locos are not likely to be used optimally.

The requirement of high horse power diesel locomotives in such a scenario thus, would not be there and the decision of setting up of the new factory for production of diesel locomotives needs to be reconsidered.

c. Present availability and utilisation of diesel locomotives in Indian Railways

The numbers of diesel and electric locomotives in Indian Railways for the past ten years are as follows:

Table 4.2 - Numbers of diesel and electric locomotives in Indian Railway

Year/ Locomotives	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Diesel	4843	4963	5022	5137	5197	5345	5633	5714	5869	6023
Electric	3443	3586	3825	4033	4309	4568	4823	5016	5214	5399

As on 31 March 2017, there are 6023 diesel locomotives in Indian Railways, of which 2101 are high horse power. Review of Annual Statistical Statement no.22 regarding availability and utilization of diesel locomotives over Indian Railway, revealed that the percentage of unutilized diesel locomotive in 2015-16 was 26.63 *per cent* of available 5869 locomotives.

Table 4.3 – Share of unutilized diesel locomotives in Indian Railway

Year	Total number of diesel locomotives	Diesel Locomotives used in different type of services in Indian Railway	Unutilized Diesel locomotives available in Indian Railway	Percentage of unutilized locomotives
2007-08	4843	3587	1256	25.93
2008-09	4963	3682	1281	25.81
2009-10	5022	3789	1233	24.55
2010-11	5137	3872	1265	24.63
2011-12	5197	3899	1298	24.98
2012-13	5345	3964	1381	25.84
2013-14	5633	4106	1527	27.11
2014-15	5714	4244	1470	25.73
2015-16	5869	4306	1563	26.63
Average Diesel locomotives unutilized = 1364				
Percentage of unutilized locomotive = 25.69				
Unutilized locomotives lying spare range between 1233 and 1563				

Though 1026 new diesel locomotives have been added during the last nine years, almost 26 *per cent* have remained unutilised.

Statistics of Engine Kilometre per day in use and on line are as under:

Table 4.4 - Engine kilometre per day (Diesel locomotive)

Year	Per passenger engine in use	Per mixed engine in use	Per goods engine in use	Per engine in use	Per engine on line
2007-08	587	793	403	436	350
2008-09	584	791	398	433	342
2009-10	586	802	382	435	355
2010-11	594	794	384	439	357
2011-12	612	0	407	460	369
2012-13	641	0	423	465	370
2013-14	615	0	429	461	359
2014-15	614	0	383	418	349
2015-16	607	0	367	442	352

The above data shows that Indian Railways is not able to use the existing diesel engines on line to its optimal capacity. The use of diesel engine in terms of engine kilometre per day per engine on line is 352, which means that these diesel engines are being run at speed of 14.67 km/hour (on 24 hour utilisation basis) and 18.53 km/hour (on 19 hour utilisation basis at 80 percent utilisation of engine on line) only. This reflects that the existing locomotives are underutilized and the requirement of additional locomotives, if any, can be made good by better utilisation of the existing fleet. The diesel engines were being run for 350 kms per day per engine in 2007-08, which is almost the same as 352 kms per day per engine in 2015-16. As such, despite adding more than 1000 diesel engines since 2007-08, their utilisation has shown no improvement. Hence, projected requirement for additional diesel locomotives on grounds of infrastructure optimization is not justifiable.

d. In-house production of diesel locomotives by Indian Railways

Indian Railways has realised this eventuality and decided (October 2017) to significantly reduce the production of diesel locomotives at Diesel Locomotive Works (DLW), Varanasi from 2018-19 onwards. Initially, the production plan for locomotives at DLW, Varanasi comprised of 254 diesel and 25 electric locomotives in 2017-18 and 200 diesel and 75 electric locomotives for 2018-19. For 2018-19, this has been revised to 107 diesel locomotives and 173 electric locomotives in September 2017 by the Railway Board. The reason for retaining the production target of 107 diesel locomotives for 2018-19 was attributed to the likely availability of buffer of material equivalent to 107 locomotives in April 2018 and to ensure utilisation of the existing infrastructure at the DLW. However, rebuilding[150] of diesel locomotives is to be completely stopped from 2019-20.

[150] Locomotive Rebuilding includes dismantling, repairs and reassembly of the complete Locomotive including under frame. During rebuilding, locomotive sub-assemblies are brought to as good as new condition.

Further, in Diesel Loco Modernisation Works (DMW), Patiala, which also undertakes rebuilding of diesel locomotives and started production of diesel locomotives from 2010-11 onwards, there has been a significant change in the production plan. While in 2014-15, 2015-16 and 2016-17, 89, 11 and 43 diesel locomotives were manufactured, the number came down to just nine diesel locomotives in 2017-18 (up to January 2018) and in 2018-19, there is no plan for production of diesel locomotives.

Thus, there is hardly any real requirement of additional 1000 diesel locomotives which are to be manufactured at Diesel Locomotives Factory, Marhowra. Whatever little requirement for diesel locomotives remains, can be comfortably met with in-house production at DLW, Varanasi.

e. Present status of implementation of the project

The scope of the project included setting up of a diesel locomotive factory at Marhowra and maintenance depot at Roza and Gandhidham. The work of setting up of the factory is planned for completion by November 2018[151]. As of September 2017, land acquisition has been done and the works of power, rail and road connectivity are in progress. The work of Government maintenance depot at Gandhidham remains to be initiated**.** The earmarked site is yet to be handed over to the Company as of November 2017**.** As regards Company maintenance depot at Roza, Railways have handed over the land to the company on 9 November 2016 and executed a land lease agreement at a token license fee of Rupee one annually. As on 31 March 2017, the physical progress of 30 *per cent* and financial progress of five and a half *per cent* was achieved.

By going ahead with the setting up of this factory, Railways would be inducting another 1000 diesel locomotives in its fleet, which it does not require, and there by commit to a liability of ₹17126.08 crore on account of manufacture and maintenance of locomotives, land cost of factory and depots, equity share, power, rail and road connectivity and investment made in Joint Venture with M/s GE Global Sourcing India Pvt. Ltd. The details of the liabilities are as under:

Table 4.5 – Liability of Indian Railways

Particulars of liability	Amount of Liability (₹ in crore)
Cost of locos to be supplied by company[152]	14,656
Maintenance cost to be paid by Railway	2228 **(Annexure 4.1)**
Expenditure as on September 2017 at Marhowra (Land acquisition cost, Equity share[153]*, Power connectivity, Rail connectivity, Road connectivity and Miscellaneous such as establishment, vehicle, imprest etc.)*	242.08
Total liability	**17126.08**

[151]Para 12.4.1 of the Agreement stipulates the scheduled date of completion as 1095 days from the date of appointment of the company (6 November 2015).
[152]The effective weighted average cost of 1000 locomotives (700 4500 HHP and 300 6000 HHP)
[153]As per the Para 1.1.8 of the Agreement, Government shall have the right to subscribe to equity share capital of the Company up to maximum of 26 *per cent* of its issued and paid up share capital, but subject to maximum ₹ 100 crore.

The above indicates that diesel locomotives available with the Railways are sufficient in numbers to take care of the present needs. In the changed scenario, wherein Indian Railways is planning to shift to complete electrification of its BG routes and also to run the freight trains in Dedicated Freight Corridors on electrified routes, the diesel locomotives procured under this agreement have hardly any scope for gainful utilisation on the Indian Railway network. Railways themselves have decided to significantly reduce in-house production of diesel locomotives at DLW, Varanasi from 2019-20 onwards and have not planned production of any diesel locomotive in DMW, Patiala in 2018-19. Thus, setting up of a new infrastructure for production of diesel locomotives and incurring a huge liability of ₹ 17126.08 crore is not in sync with the overall strategic vision of Railways. Better utilisation of the current fleet of diesel locomotives can help address the requirement of Indian Railways, if any.

It is recommended that Railways may revisit the issue and examine whether it will be prudent to create assets and infrastructure for which Railways may have no useful requirement in future, as they have planned for large scale electrification and dedicated freight corridor is also going to be completely electrified; Railways have already considerably scaled down their own in-house production programme of diesel locomotives.

The matter was brought to the notice of Railway Board on 18 January 2018; their reply is yet to be received (28 February 2018).

4.2 North Central Railway (NCR): Utilisation of Diesel Locomotive in completely electrified section

NCR administration allowed utilization of diesel locomotives in completely electrified electric sections of Allahabad-Ghaziabad (606.88 kms) and Palwal-Bina (505.31 kms). This led to extra operational cost of ₹ 5.74 crore besides negative impact on environment and increase the dependency on petroleum based energy.

Electric traction is a more environment friendly option to haul trains in Indian Railway (IR). By using electric traction, which is also a cheaper source of energy, import and use of fossil fuel is reduced resulting in reduction of carbon footprints of IR. The electric rolling stock also has the capacity to regenerate electricity. Thus, overall electric traction is as economically viable option for the railways for haulage of trains.

Audit reviewed the movement of trains in two sections of NCR viz., Mughalsarai-Ghaziabad and Palwal-Bina, which are fully electrified. Audit noticed that diesel locomotives are still running under these sections.

Audit analysed the data of Freight Operation Information System (FOIS) pertaining to freight movement in the above two sections for the year 2013-14 to 2016-17 and noticed that on the long running length viz. Allahabad-Ghaziabad section (606.88 RKM) and Palwal-Bina section (505.31 RKM), which are fully

electrified sections, a number of freight trains were running with diesel locomotives.

Audit noticed that on these two electrified sections, during the period of 2013-14 to 2016-17, a total 350 freight trains were run using diesel locomotives under electric wire. This resulted in extra operational cost of ₹5.74 crore[154] on account of freight movement using diesel locomotives as detailed below:

Table 4.6 – Extra operation cost due to running of diesel locomotives in electrified sections

Year	Section	No. of freight trains	Extra operation cost due to running diesel locomotives (in ₹)
2013-14	Allahabad-Ghaziabad	35	5227637.61
	Palwal-Bina	33	4207719.40
2014-15	Allahabad-Ghaziabad	52	10511436.22
	Palwal-Bina	43	7245805.35
2015-16	Allahabad-Ghaziabad	36	4719803.16
	Palwal-Bina	39	5550318.06
2016-17	Allahabad-Ghaziabad	38	7035622.60
	Palwal-Bina	74	12980769.77
	Total	**350**	**57479112.17**

Utilisation of diesel locomotives in electric traction not only causes extra operation cost, but also defeats the purpose of electrification.

When the matter was taken up with the NCR Administration in May 2017, they stated (July 2017) that though Allahabad-Ghaziabad section is completely electrified, all adjoining territories are yet to be electrified. Allahabad division receives trains with diesel traction and changes traction in its own system. They further stated that trains on diesel traction on electrified route are operated due to operational constraints like absence of matching of diesel and electric traction at interchange point, crew availability, training of crew, non-acceptance by other division etc.

The reply may be viewed in light of the fact that even if the goods train enters NCR jurisdiction from a section which is not electrified, NCR administration could change traction under their jurisdiction, so that electric locomotives can haul the trains in electrified section under NCR, especially when the length of electrified section is as long as 500 to 600 kms. For optimal utilisation of long electrified stretches, Railways need to identify constraints and address them to enable effective use of railway electrifications assets created, save resources in terms of expenditure on energy costs and reduce need for diesel tractions in Indian Railways.

Thus, use of diesel locomotives in completely electrified Allahabad-Ghaziabad and Palwal-Bina sections thus, resulted in extra operational cost of ₹ 5.74 crore. Besides, it also has a negative impact on environment and increases carbon foot print of the railways.

[154]Calculation of extra operation cost is based on the line haul cost per thousand GTKMs for freight (BG) issued by Railway Board

The matter was brought to the notice of Railway Board on 6 October 2017; their reply is yet to be received (28 February 2018).

4.3 South Eastern Railway (SER): Avoidable expenditure of ₹4.35 crore due to incorrect fixation of Contract Demand and erroneous payment of electricity duty at DMU Factory, Haldia

SER Administration did not realistically assess the energy requirements of the DMU factory at Haldia, keeping in view the pace and scope of its activities and continued to incur expenditure on Contract Demand charges and load factor surcharge for increasing contract demand from 1500 KVA to 5500 KVA. This led to avoidable expenditure of ₹3.22 crore in addition to the load factor surcharge of ₹0.52 crore. The scope of higher consumption is remote in near future as Phase I of the factory has been set up with very limited activity and there is no proposal to set up Phase II in near future. Till the time the activities of the factory are geared up, SER Administration would continue to pay for 1500 KVA supply, though actual consumption is below 100 KVA (7 per cent of contract demand approximately).

Ministry of Railways (Railway Board) vide their circulars of February 2000 and January 2011 directed all Zonal Railways to monitor the maximum demand at each supply point on regular basis and revise the same to the desired level based upon the agreements and tariffs of Electric Supply Authorities in force once in two years or earlier to avoid payment of penalty on account of contract demand.

South Eastern Railway (SER) decided (2011) to set up a Diesel Multiple Unit (DMU) Factory at Haldia[155] in two phases to manufacture 400 coaches of DMU and 30 coaches of Self Propelled Accident Relief Train (SPART) per annum. Phase I of the project was planned as Departmental unit for manufacture of 8 to 12 coaches per month. The Phase I unit, constructed by Rail Vikas Nigam Limited (RVNL), was taken over by the Railway Administration in April 2013. However, very limited activity of assembly, painting, furnishing of the fabricated shell received from Integral coach Factory (ICF) was started. In Phase II, full scale production of DMUs and SPARTs through Joint Venture (JV)/ Public Private Partnership (PPP) mode was planned, which could not materialize till March 2017.

Audit observed that SER Administration had applied (May 2011) for 33 KV bulk power supply at Haldia factory premises from the West Bengal State Electricity Distribution Company Limited (WBSEDCL). Electrical Department[156] of SER executed agreement with WBSEDCL in April 2012. On the basis of projected progressive requirement of 1500/2000/2500/5500/7000 KVA for the first five years of operation, the Contract Demand (CD) was fixed as per the forecast for the first five years and the sub-station was energized on 15 March 2013. SER

[155] Previously the factory was planned at Sankrail but in February 2011 it was relocated to Haldia
[156] Senior Divisional Electrical Engineer, General, Kharagpur

Administration incurred an expenditure of ₹ 3.07 crore for new connection, security deposit and shifting of the existing 11 KV to 33 KV line.

Audit noticed that because of very low level of workshop activities, actual consumption of electricity was very low in comparison to CD (below 100 KVA during the period April 2013 to March 2017). Meanwhile, the Contract Demand continued to increase as per the progressive projected requirement of 1500/2000/2500/5500/7000 KVA for the first five years of operation. As per agreement, railway had to pay for Maximum Demand (MD) at 85 *per cent* of the CD, irrespective of the actual usage[157]. This resulted in an avoidable expenditure of ₹ 3.22 crore[158] towards demand charges[159]. Besides, due to extremely low load factor, railways also paid load factor surcharge of ₹ 0.52 crore for the period from April 2013 to March 2017.

In February 2012, Senior Divisional Engineer, Kharagpur assessed the load demand[160] of 1500 KVA as sufficient for the DMU, Factory, Haldia. Audit raised the issue in February 2014 and observed that construction of Phase II of the factory has not yet planned and all infrastructure of Phase I has not yet ready for full production, estimation of contract demand progressively 1500/ 2000/ 2500/ 5500/ 7000 KVA for the first five years was injudicious. However, SER Administration approached WBSEDCL for downward revision of CD to 500 KVA only in August 2016. In response, WBSEDCL intimated (August 2016) that CD for 33 KV system of supply should not be below 1500 KVA and revised (October 2016) the CD to 1500 KVA from the consumption month of November 2016. Thus, though the CD increased from 1500 KVA to 5500 KVA during 2013 to 2017, the option for downward revision of CD was availed by railways only in November 2016, though it was available to them in April 2014 itself.

Audit further observed that SER Administration erroneously paid an amount of ₹ 0.61 crore pertaining to the period from October 2013 to March 2017 to WBSEDCL towards Electricity Duty (ED). This was in violation of Constitutional provisions of Article 287 which stipulates that 'no law of a State shall impose, or authorize the imposition of a tax on the consumption or sale of electricity (whether produced by a Government or other persons) which is consumed in the construction, maintenance or operation of any railway by the Government of India etc.' In this connection, it is pertinent to mention that railway is not paying ED to the electricity authority for purchase of electricity at other locations (Haldia Railway Station and Kharagpur).

The matter was brought to the notice of Railway Board on 9 October 2017. Ministry of Railways in their reply (February 2018) stated that as soon as the actual load was found to be less than the initial projected demand, the user

[157] As per Clause 22 and 23 of the Agreement dated 13.04.2012
[158] Considering 100 KVA as maximum demand as during the entire period from April 2013 to March 2017, MD was below 100 KVA
[159] Demand Charge is the element of electricity charge computed on the maximum contract demand per KVA/ month.
[160] Load demand is the maximum requirement of electricity for which agreement is entered into with the West Bengal State Electricity Distribution Company Limited

department was consulted and matter taken up with WBSEDCL for revision of contract demand. They further stated that the assessment of power requirement was done as per factory utilisation envisaged and they have further sent a reference to CMD, WBSEDCL for examining the possibility of further reduction of demand.

Regarding payment of electricity duty, the Ministry stated that they had taken up the matter with WBSEDCL in February 2017, who stated that the exemption could be considered provided the Director of Electricity Duty, Government of West Bengal agrees to it. They stated that they have taken up the matter with the State Government and their reply was awaited.

Thus, SER Administration did not realistically assess the energy requirements of the DMU factory keeping in view the pace and scope of its activities and continued to incur expenditure on Contract Demand charges and load factor surcharge for increasing contract demand from 1500 KVA to 5500 KVA. This led to avoidable expenditure of ₹ 3.74 crore. The scope of higher consumption is remote in near future as Phase I of the factory has been set up with very limited activity and there is no proposal to set up Phase II in near future. Till the time the activities of the factory are geared up, SER Administration would continue to pay for 1500 KVA supply, though actual consumption is below 100 KVA (7 *per cent* of contract demand approximately).

Chapter 5

Signalling & Telecommunication

At Railway Board level, Director General is overall in-charge of Signalling & Telecommunication (S&T), a Department of Indian Railways who directly reports Chairman Railway Board. At Zonal level, the Chief Signalling and Telecom Engineer (CSTE) is responsible for overall supervision and maintenance of S&T assets.

For enhancing efficiency and safety in train operation, modern signaling plays a very vital role. The Signalling Department handles induction and maintenance of signalling systems such as Multi Aspect Colour Light signaling (MACLS), Panel Interlocking (PI), Route Relay Interlocking (RRI), Electronic Interlocking (EI), Automatic Block Signaling, Block proving by Axle Counter, enhancement of safety at level crossing by Interlocking of level crossings and provision of telephones at manned level crossings etc. The Telecom Department oversees the complete working of Telecom in Railways and takes care of all the telecommunication requirements of Railways.

The expenditure on repair and maintenance of plant and equipment of S&T department during the year 2016-17 was ₹ 2856.49 crore[161]. A capital expenditure of ₹ 966.58 crore was incurred on creation of S&T assets. During the year, apart from regular audit of vouchers and tenders, 180 offices of the Department were inspected.

This chapter includes a long paragraph on 'Implementation of Mobile Train Radio Communication (MTRC) system over Indian Railways'. In this paragraph, Audit reviewed the status of implementation of the MTRC system on Indian Railways and analysed reasons of sub-optimal/non-utilisation of the system. In addition there are two individual paragraphs highlighting non-utilisation of handsets procured for MTRC system and avoidable liability on account of Spectrum Charges due to failure to review the use of Walkie Talkie sets.

[161] Minor Head 500, 600 and 700 of Grant no.07 – Repair and maintenance of plant and equipment

5.1 Implementation of Mobile Train Radio Communication (MTRC) system over Indian Railways

5.1.1 Executive Summary

The MTRC system has been introduced to replace the existing Very High Frequency (VHF) based communication system over IR. It aims at better traffic management over Indian Railways through data transfer (regarding location and movement of trains) and secured communication amongst drivers, guards, maintenance staff, etc. MTRC to be effective required implementation on complete routes, dedicated locomotives with cab radios for the routes, provision and maintenance of MTRC infrastructure, stakeholder identification and role assignment, skill identification and upgradation, revision of recruitment rules and change management. However, no road map for implementation of the system has been prepared by the railways. Due to absence of a comprehensive time bound road map, implementation of MTRC system could not take place. As on 31 March 2017, only on 1470 RKMs out of 19,512 RKMs planned, the MTRC project has been implemented. Wherever implemented, the system is not being utilised as complete routes have not been covered for implementation and dedicated locomotives with cab radios for the routes have not been provided. Besides, due to deficient support system in terms of maintenance contracts and faulty Mobile Service Switching Centre at Agra, the system remains unutilised. Thus, expenditure of ₹ 181.73 crore incurred on MTRC system so far has remained unfruitful. There is a need to review the requirement and architecture of the MTRC system as an independent telecom system within Indian Railways, particularly in view of the advancements made in the telecom field in the country during the last decade.

5.1.2 Introduction

Indian Railway is presently using 'Driver-Guard-Station-Controller System', generally known as 'Control Communication System' for communication to run trains. In this system, communication between Driver-Guard and Driver-Guard-Station Master is based on Wireless Fidelity (Wi-Fi) Technology through VHF[162] (Very High Frequency) handsets; that uses radio waves to provide network connectivity. Communication between Station Master and Control offices is based upon land line phones. Under this system the communication through Wi-Fi is not retrievable, whereas communication through land line is retrievable.

Indian Railways decided to introduce Mobile Train Radio Communication based on GSM-R technology. The 'Gaisal Train Disaster', which occurred on 2 August 1999 due to the collision between the Avadh Assam Express from Dibrugarh and the Bramhaputra Mail from New Delhi, leading to more than 280 deaths and leaving over 320 people injured prompted the Indian Railways to expedite the changeover to MTRC system.

[162]A system of communication through walkie talkies

Mobile Train Radio Communication (MTRC) system is being implemented as a dynamic and technologically *avant-garde* system of highly advanced system based on the 'Global System for Mobile Communications-Railway (GSM-R)' technology and is expected to play an intrinsic role in minimizing train accidents by aiding effective communication. It ensures safety of passengers by providing effective communication and instant and constant interaction of the train crew with the Control Centre and Station Master through the use of GSM-R technology.

In 2005, the MTRC project was sanctioned and Nokia Siemens Network was given the work of implementing MTRC based on GSM-R technology in India. The Nokia Siemens Network implemented the country's first GSM-R based MTRC system in May 2008 for Palwal-Mathura-Jhansi route of North Central Railways. As per the Action Plan for Vision 2020 and recommendation of the High Level Safety Review Committee, all 'A', 'B' & 'C' routes of Indian Railways consisting of 19,152 Route Kilometres (RKMs)out of 66,687 RKMs of Indian Railways network were to be provided with MTRC System. Accordingly, 19 MTRC projects (including one Kolkata Metro Project, three projects of 'D' and 'E' category routes) were taken up (31 March 2017). The MTRC project is being implemented by the Indian Railways Project Management Unit (IRPMU) over North Central Railway (NCR) as well as Kanpur-Lucknow section of Northern Railway.

Mobile Train Radio Communication (MTRC) system

MTRC system ensures switch over from analog communication to digital technology. It needs a specific frequency band pertaining to railway applications. For Indian Railways, the Telecom Directorate of IR has recommended 900 MHz frequency band for downlink and uplink signals respectively. They are essentially 935-960 MHz and 890-915 MHz, respectively.

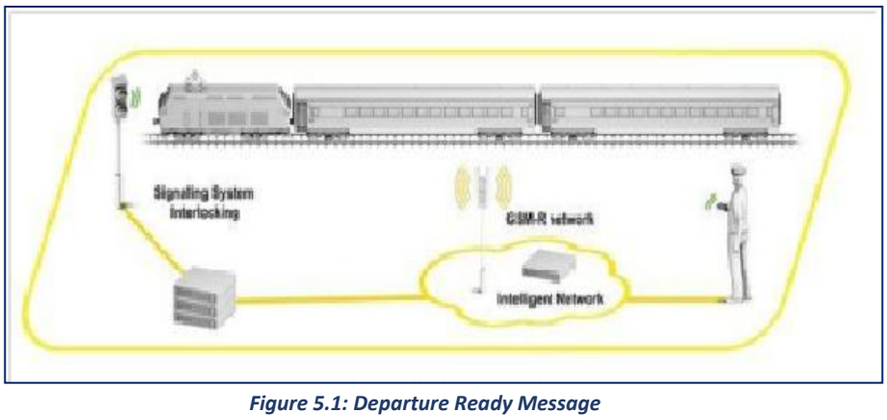

Figure 5.1: Departure Ready Message

The present day MTRC system has many advanced features, which enhance the safety of the overall system of railways operations and ensure that the optimum passenger safety conditions are met. The important components and equipment of MTRC based on GSM-R include Base Station Subsystem (BSS), Mobile Station (MS), Operating Subsystem (OSS), Network and Switching Subsystem (NSS), Cab

Radio[163], Dispatcher and Power Supply Arrangement. A pictorial representation of GSM-R systems is shown in ***Figure 5.1.***

The system aims to provide complete detail about the train and its running status to the railway officials like information about the train's speed, its current direction of movement based on 'Global Positioning System (GPS)', time of train's arrival and departure, the current passenger strength on the train, the track details on which the train is running, amongst other advantages. It can be used to warn the drivers beforehand of the running trains as well as provide effective assistance to the railway officials involved in train related operations. In case of a safety concern, the concerned staff can immediately intimate the concerned officials of the railway establishment. If any accident takes place, it will ensure effective facilitation of the management of the post event activities. The salient features of MTRC system include the following:

1. The modern trains having MTRC system simultaneously calculate and communicate their running status through radio communication to the drivers and the control rooms.The communicated status includes important details about the running trains like the accurate position of trains, their speed, braking distance and the direction in which they travel in terms of their position coordinates.
2. The system allows the wayside equipment's[164] to highlight such points on the railway track which may be called as nodes, which should not be crossed by other trains moving on the same path.
3. The system calculates the ambient 'Safety Braking Distance' and greatly reduces this distance between two trains by providing continuous and accurate train location and speed details.
4. The system provides for easy switchover and up-gradation to driverless trains as it is based on a highly advanced communication technology.
5. The system, by calculating the most efficient train speed for minimum energy loss incorporates train costing (due to which the train runs down the track because of its own gravity, without making use of other energy forms like electric power). This helps save energy.

Even though the MTRC system has many advanced features to ensure maximum efficiency in railways operations and passenger safety, like any other

[163] As per Chapter XVIII of Indian Railway Telecom Manual, cab radio is on-board equipment suitable for voice and data communication. It can be used with European Train Control System (ETCS) for train control. It consists of three units Radio, Operating units on Man Machine Interface (MMI) and antenna. The cab radio is a part of the locomotive. It ensures seamless GSM-R communication and registration/de-registration at crew changing points is not required. The alternatives to cab radio are mobile handsets and Operational Purpose Handset (OPH). These require registration and de-registration at every crew changing point. Further, during a single journey of a locomotive the relationship of a locomotive to crew is one to many i.e. a number of crew will be required for completing a single trip of locomotive. Thus, alternative to a single cab radio will require multiple units of mobile equipment. Mobile Equipment (ME) used in MTRC system includes Operational Purpose Handsets (OPH) and General Purpose Handsets (GPH). OPH is useful for Guards, Train Superintendents, Station Masters, Shunting Teams, Controllers other than the Section Control and Drivers also when Cab Radios are not provided/functioning in loc. General Purpose Handset (GPH) is useful for trackside maintenance staff (Engineering, Signal & Telecom and Electrical for Railway Electrification areas, and Security patrols).

[164]As per the Manual on Uniform Traffic Control Devices, 2009 given by the 'US Department of Transportation, Federal Highway Administration', wayside equipment includes the switches, signal systems, control devices, etc. for railway transit operations housed within one or more than one enclosures located on the railway tracks.

technology, it also has some drawbacks which need to be taken into consideration when designing or using the system for railways communication. The major risk is that if the communication between any of the trains fails or is hampered, then the MTRC system might fail, wholly or partially, endangering the safety of passengers. As the MTRC system uses Radio Communication for all applications, there can be communication failures due to weak signal strengths, attenuation, electromagnetic (EM) interference or glitch in the functioning of the hardware. As the system makes use of wireless communication, it can be subjected to unethical hacking, putting the passenger safety into question. Due to malfunctioning of equipment, there can be unexpected and unwanted application of emergency brakes, which can cause train accidents.

A pictorial representation of Automatic Train Supervision[165] is shown below:

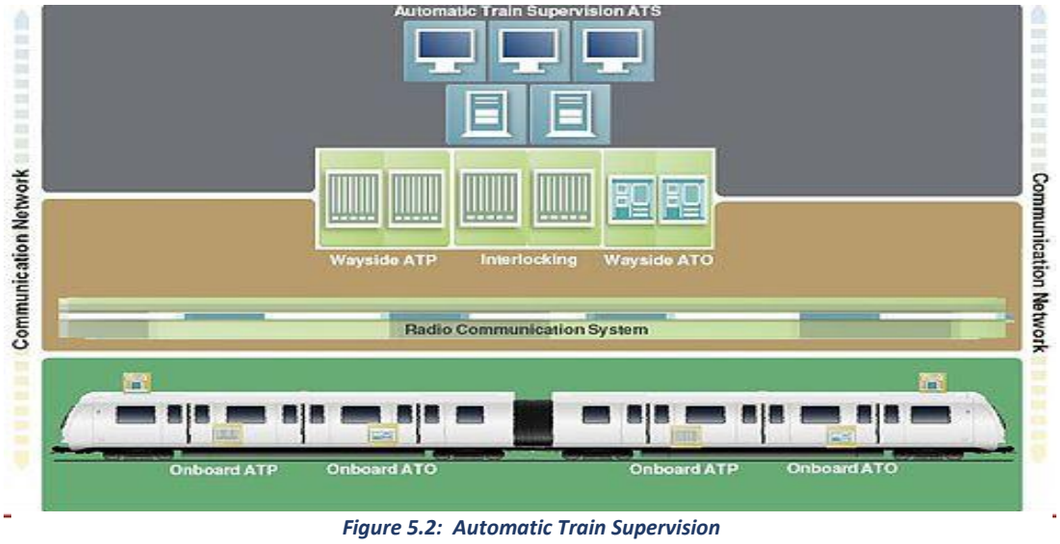

Figure 5.2: Automatic Train Supervision

Operational requirements for MTRC

The MTRC system has been introduced to replace the existing VHF based communication system over IR. It would lead to better traffic management over Indian Railways through data transfer (regarding location and movement of trains) and secured communication amongst drivers, guards, maintenance staff, etc. The following necessary minimum ingredients are necessary for obtaining benefits of implementation of MTRC over Indian Railways:

i. ***Complete route should be MTRC enabled*:** MTRC system seeks to replace VHF based communication system over Indian Railways have trains travelling on long distance routes e.g. Delhi-Howrah, Delhi-Nagpur, Delhi-Kanpur, Delhi-Jammu etc. It requires availability of MTRC system on complete routes. If made available over small sections and sub-sections, the benefits of the system cannot be derived.

[165]Automatic Train Supervision has two sub-systems: Automatic Train Protection is responsible for the safety-critical functions including train protection and Automatic Train Operation is responsible for the automatic operation of throttle and brake commands to move trains between stations and other stopping locations.

ii. ***Availability of dedicated locomotives for the MTRC enable routes:*** The complete benefits of MTRC are available through a dedicated cab radio for each locomotive for data recording, transfer and communication. Thus, it is desirable that MTRC enabled locomotives with cab radios run on the routes with MTRC system.

iii. Seamless uninterrupted network on MTRC route requires ***sufficient number of Base Transceiver System***[166] ***(BTS), Mobile Service Switching Centre***[167] ***(MSC),*** absence of blind spot[168], maintenance facilities for hardware components and software applications.

iv. Replacement of VHF based system by MTRC system requires ***revision of operational instruction for operation of train, training, skill up gradation and change in working practices*** including changes in recruitment rules.

Audit reviewed planning and execution of selected completed and ongoing projects for implementation of MTRC systems in Indian Railways. Audit findings are discussed below:

Audit findings

5.1.3 Status of various MTRC Projects undertaken by Indian Railways

Though planned since 1980, Indian Railways initiated the work of implementation of MTRC System in 1999-00 through different projects in different segments.Based on the recommendation of Railway Safety Review Committee's report (August 1999 and February 2001), Railway Board approved in-principle implementation of MTRC project covering 19,152 RKM of 'A', 'B', and 'C' routes. Vision 2020, envisaged covering 12000 RKM under MTRC by 31 March 2017. 19 MTRC Projects (15 projects of 'A', 'B' and 'C' routes, two projects of 'D' routes, one of E route and one project of Kolkata Metro Railway) were planned for implementation. Audit noticed that as on 31 March 2017, only 3,900 RKM have been covered under MTRC **(Annexure 5.1),** i.e. 20.367 *per cent*[169] of the total RKMs planned. Audit observed that

- Only on 1470 RKM (12.25 *per cent*[170]) the MTRC work has been completed by railways as on 31 March 2017:

Table 5.1 – Sections where MTRC work has been completed as on 31 March 2017

S. no	Name of the section where MTRC Project implemented	RKM
1	New Delhi-Jhansi (excluding New Delhi-Palwal (57 RKM) and Palwal-Mathura (83 RKM))	270
2	Palwal-Mathura	83
3	Lucknow-Kanpur	75
4	New Delhi-Ambala-Ludhiana (Including New Delhi-Palwal section and Delhi area)	372
5	Mughalsarai – Dhanbad	400
6	Dhanbad – Howrah	270
	Total	**1470**

[166]It performs channel coding/decryption and contains transmitter and receivers, antennas
[167]It is centre responsible for call processing, switching & routing traffic and supplementary services.
[168]A blind spot is location where GSM network not working
[169]3900 RKM /19152RKM *100
[170]1470 RKM/12000RKM*100

- Out of 19 MTRC Projects planned, the following five projects have not been started as yet, even after a lapse of three to four years from the date of their sanction. The detailed estimate of these projects were yet to be sanctioned:

Table 5.2 – Sections where MTRC work is yet to be taken up

S. no	Zonal Railway	Name of the section where MTRC projects were yet to be taken up
1	NFR	Kamakhya-Goalpara-New Bongaigaon section
2	NFR	Guwahati-Lumding section
3	WR	Churchgate-Virar-Replacement section (and integration with MTRC of Central Railway)
4	CR	Itarsi-Nagpur MTRC (without master switching centre)
5	NR	New Delhi-Ghaziabad including Delhi-Sahibabad section

- Though benefits of MTRC system could be derived only when it is implemented on the complete route and not in parts, the same was not ensured while taking up various projects. e.g. The MTRC project of New Delhi-Jhansi (270 kms) was taken up in the year of 2001-02. But, the middle section of Palwal-Mathura (83 kms) was taken up after more than three years in 2004-05. No reasons were found on record for the same.
- A cab radio for each locomotive for data recording, transfer and communication and dedicated locomotives for the MTRC enable routes were not provided, and OPH/GPH handsets were being issued, where MTRC was implemented.

Thus, railways have not planned for implementation of the MTRC system in a comprehensive manner. MTRC to be effective required implementation on complete routes, dedicated locomotives with cab radios for the routes, provision and maintenance of MTRC infrastructure, stakeholder identification and role assignment, skill identification and upgradation, revision of recruitment rules and change management. However, no road map for implementation of the system has been prepared by the railways. As on 31 March 2017, only on 1470 RKMs out of 19,512 RKMs planned, the MTRC project have been implemented.

5.1.4 Analysis of completed MTRC Projects

Audit undertook detailed analysis of MTRC projects completed/partly completed by Indian Railways. Detailed audit findings are discussed below:

5.1.4.1 Mathura –Jhansi and Palwal-Mathura sections

The MTRC projects were planned for Mathura-Jhansi section (270 RKM) and Palwal-Mathura section (83 RKM) by IRPMU in 2001-02 and 2004-05 respectively. The contract for these projects including survey, design, manufacture, supply, installation, testing and commissioning of MTRC system was awarded (April 2005) to M/s Siemens Public Communication Networks

(Pvt.) Ltd., Gurgaon, at ₹ 19.92 crore[171]. The project was to be completed within12 months from the date of issue of letter of acceptance (April 2005).

These projects were finally completed in 2008 with a delay of nearly two years and at a cost of ₹ 37.62 crore till March 2017.The actual date of completion and reasons of cost overrun was not found on record. The project was taken over in June 2014 (after more than five years) by NCR, after issue of the directives by Railway Board in July 2013, with certain deficiencies as listed below:

- Isolation Transformer were not available at Datia, Antri, Sithouli and different other places.
- Faulty Isolation Transformer, defective Specific Transmission Module FIBCOM make and unavailable Duamco card at the Level crossing gate.
- Unavailable Base Transceiver Station (BTS) at tunnel (Antri-Sandalpur).
- Unavailable coverage due to dark zone between Antri-Sandalpur, Sithouli-Gwalior and Dholpur-Mania.
- Faulty communication devices (handsets) including 101 Operational Purpose Handsets (OPH), 31 General Purpose Handsets (GPH) and six mobile sets of Magicon make.

The reason and justification for not taking over of the above MTRC system in this section up to a period of five years were also not found on record.

Audit observed that

1. The comprehensive warranty and annual maintenance contract (AMC) of the MTRC system in this section expired on 31 March 2012. The two year warranty and three year AMC expired without any operation or utilisation of the MTRC system. Thereafter, the AMC could not be renewed. The system does not have any AMC coverage for the last five years.

Agra Division of NCR floated tender (April 2014, June 2014 and again in August 2014) for Comprehensive AMC of MTRC system in the section at an estimated cost of ₹ 4.90 crore. Against tender of August 2014, only one bidder viz. Original Equipment Manufacturer (OEM),M/s Nokia India, Gurgaon responded with offered price of ₹ 8.43 crore. This price included cost of repair charges for faulty items identified. Tender Committee discharged this tender on the ground of non-fulfilling of minimum qualifying/eligibility criteria and recommended to invite fresh tender after revision of the estimate.Thereafter, tenders with revised estimated (₹ 9.36 crore including cost of repair and maintenance of faulty spares)were invited four times (September 2015,January 2016, June 2016 and April 2017) without change/relaxation in eligibility criteria. Against the fifth, sixth and seventh tender, the offer received was discharged on the ground of non-fulfilling of minimum qualifying/eligibility criteria. Further, in November 2017 and December 2017, tenders were invited with change in eligibility criteria. The offer received against tender of December 2017 was under process and yet to be finalised.

[171] ₹ 18.82 crore for Mathura-Jhansi and ₹ 1.10 crore for Palwal-Mathura section

As such, though response received against every tender was poor, Railways repeatedly invited tenders for AMC of this section without exploring any relaxation/change in the minimum qualifying/eligibility criteria. Also, a better response for AMC would have been received, if the same was not linked with repair work of faulty items.

2. The Mobile Service Switching Centre (MSC) at Agra is the prescribed Home Location Register (HLR)[172] for NCR. All MTRC users of NCR are required to register at this MSC. Due to fault in the MSC at Agra, new subscribers cannot be added. Further, the communication taking place in MTRC system is also not retrievable over this section. The fault in MSC at Agra have not been rectified as AMC of MTRC system in Palwal-Mathura-Jhansi route is not in place since April 2014. Defects pointed out at the time of taking over the system in June 2014 continue to exist. No cab radio is installed or in use over locomotives running on the section for purpose of use of MTRC system. As an alternative OPH, GPH, mobile handsets to limited number of subscribers, who were registered before MSC at Agra, are being used in the MTRC system.

3. The operation of trains over Indian Railways are executed through directives contained in General and Subsidiary Rules (G&SR). Respective Zonal Railways issue amendments to G&SR to cater to local variations. The provision for MTRC over NCR was incorporated in G&SR through Amendment issued (4 December 2013), which provided that GSM MTRC, Tetra based mobile communication; trunking radio and CTCSS VHF are prescribed as a secured means of communication in regard to communication between station Master and Loco Pilot. The amendment further provides that wherever secured means of communication are not available, the loco pilot shall be advised through a written memo. Provision of MTRC through this amendment showed that MTRC system is prescribed as a standby system for communication between loco pilot and station master, whereas controllers, guards, maintainer and others are not included in the amendment to G&SR for communication through MTRC.

Thus, MTRC system is not being used with its full potentialities and objectives. G&SR prescribes its use as a supplementary communication to Wi-Fi Based communication. This is based on feature of MTRC where communication is recorded and is retrievable. However, since this aspect of MTRC is not working at present, the MTRC system in the section cannot be used for the purpose.

4. The basic features of GSM-R[173] allows various users to make point to point calls, groups of users to receive common information and make calls within/among the groups, allows a user or an application to be reached by means of a number, which identifies the relevant function and not the physical terminal, provides the routing of mobile originated calls to the correct controller e.g. relative to the geographic area and allows resource pre-emption for priority calls.

[172]HLR contains pertinent user information including address, account status and preferences. It interacts with the MSC which is a switch used for call control and processing.
[173] As defined in Chapter 18 of Indian Railway Telecom Manual

To ascertain the extent of utilization and benefit of MTRC system on the above two sections, Audit collected feedback from 19 users/maintainers (consisting 10 of running staff (Loco Pilot), 03 maintainers (Technician and Engineers) and six others (control staff and Station Masters) by way of their opinion/experience. Audit observed that

- More than 90 *per cent* users were having ordinary mobile set or other type of simple equipment.
- All the MTRC system users are using only normal calling facility just like CUG calling system and were not acquainted with features of MTRC system in operation.
- 90 *per cent* of running staff and 11 *per cent* of other staff users expressed constraints over availability of signal strength and lack of connectivity as the main problem of MTRC system.
- All running staff have problem in registration/deregistration. The use of handsets in place of cab radios leads to requirement of registration/ deregistration.
- No user or maintainer had been provided any training regarding use/ maintenance of MTRC system.

As such, none of the users are in a position to use MTRC system for any purpose except as a standby to Wi-Fi system (Communication System in existence for the purpose at present). The crew on Indian Railways also have another stand by system for communication in form of Closed User Group (Communication facility) provided through a private telecom service provider.

Thus, defects and deficiencies in the MTRC system at the time of taking over, subsequent defects of MSC/Agra, failure in communication retrieval, absence of cab radios in the locomotives, absence of repair facilities and non-availability of an AMC have led to the sub-optimal utilization of MTRC system. The expenditure of ₹ 37.62 crore on implementation of MTRC project in Palwal-Mathura-Jhansi route remained unfruitful. Moreover, chances of technological obsolescence of MTRC equipment and accessories installed 10 years back cannot be ruled out, particularly due to non-finalization of AMC as on date.

5.1.4.2 Lucknow-Kanpur section

Audit reviewed the records relating to the MTRC work of Lucknow-Kanpur section and noticed that

- The above project consisting 75 RKM was planned by IRPMU in the year 2007-08 and is an extension of Ghaziabad-Kanpur route (which is a part of the Ghaziabad-Mughalsarai route over NCR).
- It was finally completed after 16 extensions granted and after a delay of more than six years at a cost of ₹4.57 crore as on 31 March 2017. Actual

date of completion of this project was not found on records made available to audit.

- The system was offered to Northern Railway (NR) with handsets on October 2015 by IRPMU, but the same did not materialise. The system remains unutilised as on date.
- CPM/IRPMU also recorded (October 2015) in the Minutes of the Meeting to review the operational and maintenance issue and progress of MTRC works that the system of Lucknow-Kanpur route has been commissioned, but is not in use. It will be come into use when the work in whole section from Ghaziabad-Kanpur will be completed.

Thus, the completed portion of 75 RKM of Lucknow-Kanpur route remained unutilised even after incurring an expenditure of ₹ 4.57 crore and after passage of more than eight years.

5.1.4.3 New Delhi-Ambala-Ludhiana (Including New Delhi-Palwal section and Delhi area)

The work was taken up in 2001-02. Though the work was completed, financial closing was pending. The project was commissioned in August 2013 and handed over Network Management organisation in November 2016 after three years. AMC for 29 locations of Palwal-Ludhiana section lapsed in February 2015, but contract for AMC for the period thereafter was finalised only in March 2017. However, none of the train being run in the section are using this system. The system on New Delhi – Palwal section was commissioned in August 2013.

5.1.4.4 Mughalsarai - Dhanbad (400 RKM)

The system has been commissioned in 2006-07 by M/s Nortel. However, the same is not being utilized due to the following reasons:

- MTRC system is very sophisticated and requires highly expert manpower for its maintenance and cannot be maintained departmentally. However, as the company, which commissioned the system in this section, closed down in the year 2010, the system could not be maintained. Due to lack of maintenance and want of spares etc., the system stopped working since the year 2013. AMC was awarded (October 2017) to M/s Nokia solution network Pvt. Ltd.
- ECR Administration confirmed that a blind spot between Koderma-Gujhandi section (0.5 km) was reported through drive test. The concerned division has approached (October 2017) the AMC contractor for rectification of the same.
- Out of 1150 handsets required, there was a shortage of 1113 equipment. Though requisitions for the same were made by the concerned division, the same were yet to be received.

Audit further observed that there was failure of connectivity on nine occasions during 2016-17 for 33.62 hours between Base Station Controller and Mobile Services Switching Centre, as provided by Railtel Communication India Limited

(RCIL). During 2017-18 (up to January 2018) link failure was noticed on four occasions for 21.25 hours. Thus, though commissioned ten years back, the system was not being utilised.

5.1.4.5 Dhanbad - Howrah (270 RKM)

The system was commissioned in (22 January 2007), but not operational as the company (M/s Nortel -OEM), which commissioned the system in this section, closed down in the year 2010, the system could not be maintained. MSC at Kolkata is not working and MSC (proposed) at Tundla is required to be relocated to Kolkata. The system is, thus, not being utilised.

5.1.4.6 Status of completed part project

Audit reviewed the records relating to the MTRC work of Ghaziabad-Kanpur section and noticed that

- The above project consisting 410 RKM was planned by IRPMU to be completed in the year 2002-03.
- Etawah-Aligarh consisting of 170 RKM was completed by M/s Ansaldo Signal Consortium in November 2013 without taking up any work from Ghaziabad to Aligarh and from Tundla to Kanpur. This middle section remained switched off upto March 2016. Later on, it was offered to Allahabad Division with handsets and SIM for use in October 2016. But due to defect in working of MSC at Agra, the system remains unutilised as on date. MSC at Agra is the home location register for all subscribers of NCR and no MTRC system over NCR cannot be put to use without the removal of defect in the MSC at Agra. The alternate is to procure, install and commission another MSC.
- The expenditure on the above project was incurred to the extent of ₹ 47.90 crore as of March 2017 without any utilisation so far.
- NCR also incurred an expenditure of ₹ 12.00 crore on procurement of items including OPH handsets for cab radio, cab radio hardware and software, etc. lying unutilized since 2011 at Tundla Depot.

Thus, the completed portion of 170 RKM on Ghaziabad-Kanpur section also remained unutilised, despite incurring an expenditure of ₹47.90 crore.

Thus, despite the fact that the MTRC system can be best utilised when it is implemented seamlessly on the complete intended routes, the MTRC system has not been implemented in full stretches. Wherever implemented, the same is not being utilised due to deficient support system in terms of maintenance contracts and faulty Mobile Service Switching Centre at Agra and Kolkata and non-availability of cab radios in the locomotives. The expenditure of ₹ 181.73 crore incurred on MTRC system so far has become unfruitful. In this regard, Audit noticed that Executive Director of Signal Directorate/Railway Board in 2002-03, proposed to the Chairman Railway Board and all the works sanctioned/processed for sanction may be dropped as the experience in this regard on sections where this was provided has been extremely discouraging. Member Electrical/Railway Board opined that arrangement of VHF sets and

walkie-talkie sets to driver and guard may serve as an interim arrangement, which at best can provide simple and limited communication in stationary and low speed mode. The view of Member Electrical was agreed to by the Chairman Railway Board. Thus, there is a need to review the policy in terms of its requirement and its relevance in the present scenario.

Audit recommends that a full scale review of the MTRC projects may be taken up by the Railway Board and completed within a reasonable time frame. Till such time all fresh procurements and agreements related to MTRC may be put on hold. This may exclude agreements/tenders which are necessary to maintain the health of existing assets. A road map indicating activities, time lines, stake holder identification with role assignment may be prepared, addressing issues of change in technology, support system and skill requirement etc. India has undergone a telecom revolution in the last decade and Railway administration should consider if the requirement of secured communication envisaged through MTRC could be met through specialized telecom providers (existing in India) in place of creating an independent telecom infrastructure for MTRC within IR.

The matter was brought to the notice of Railway Board on 2 February 2018; their reply is yet to be received (28 February 2018).

5.2 North Central Railway (NCR): Unwarranted procurement of Operational Purpose Handsets and General Purpose Handsets led to blockage of capital of ₹ 17.77 crore

Railway Administration procured costly Operational Purpose Handsets (OPH) and General Purpose Handsets (GPH) equipment worth ₹ 17.77 crore without proper and realistic need analysis and hence these could not be utilised. Quotes were called from the firm without any basis and rational. The Tender Committee went out of its way to obtain documentation pertaining to the earlier tender from RDSO, to prove the eligibility of the firm for the current tender.

Mobile Train Radio Communication (MTRC) is a dynamic and technologically *avant-garde* highly advanced system based on the Global System for Mobile Communications-Railway (GSM-R) technology. The system is expected to play an intrinsic role in minimizing train accidents by aiding effective communication. Operational Purpose Handsets (OPH) and General Purpose Handsets (GPH) are mobile equipment used for communication by drivers and for general use by railway personnel involved in train operations, such as guards, shunting and track side maintenance staff (Engineering, Signal & Telecom and Electrical for Railway Electrification and Security patrols) respectively, under MTRC system. This equipment function after registration/ de-registration in the specific Mobile Switching Centre (MSC) which is a telephone exchange that makes the connection between mobile users within the network, from mobile users to the public switched telephone network and from mobile users to other mobile networks.

Indian Railways procures these handsets either through a composite package of the MTRC project including design, manufacture, supply, installation and commissioning of the whole project or through procurement as a non-stock item based on cross acceptance approval[174] of Research Designs and Standards Organisation (RDSO). OPH equipment has two SIM cards for easy switch between Global System for Mobile Communication for Railways (GSM-R) and public subscription in order to achieve effective and efficient communication under MTRC system. GPH equipment has single SIM card system.

Audit reviewed the records of procurement of these OPH and GPH equipment in NCR. It was seen that on the basis of indents received (October 2014 and February 2015) from Jhansi Division for requirement of 507 OPH and 1000 GPH handsets for their usage in MTRC system over New Delhi- Jhansi section, NCR Administration (Controller of Stores, Allahabad), through open tender mode placed (July 2016) Purchase Order (PO) on M/s Vista Information System (VISPL). The contractual price for supply of 507 OPH and 1000 GPH was ₹ 17.77 crore[175] @ ₹ 1,36,100 and ₹ 74,599 for OPH and GPH respectively. The stipulated delivery schedule of start within two months and to be completed within four months thereafter. Audit observed that deficiencies in the process of assessment and procurement of these handsets. Detailed observations are given below:

A. Assessment of requirements of handsets

Jhansi division placed indents (October 2014 and February 2015) for requirement of 507 OPH and 1000 GPH handsets for their usage in MTRC system over New Delhi- Jhansi section. It was also seen that during the review of work of MTRC project of Jhansi-Bina section, Railway Board decided (October 2015) not to procure costly GPH/OPH and stated only to use ordinary GSM handsets with single SIM architecture in view of the current status of implementation of MTRC and acceptability of MTRC by users. They further suggested that introduction of special purpose OPHs can be considered as a step for value addition after the system gets wide acceptance and the staff become familiar.

The status of requirement of OPH/GPH against their actual utilisation as on June 2017 was a follows:

Table 5.3 - Status of requirement of OPH/GPH against their actual utilisation as on June 2017

Name of Division of NCR	Modified Requirement		Remarks
	OPH	*GPH*	
Jhansi	125	944	Jhansi Division projected its requirement based on 25 *per cent* additional quantity towards spares.
Agra	382	415	Agra Division projected its requirement based on 25 percent additional quantity towards spares but without essentiality certificate and finance vetting.

[174] Cross-acceptance approval of a product is status when it has been accepted by one Authority and is acceptable to other Authorities without the necessity for further assessment.
[175] ₹ 14.38 crore for supply and` 3.39 crore towards two year maintenance charges after three year warranty period

Table 5.3 - Status of requirement of OPH/GPH against their actual utilisation as on June 2017			
Name of Division of NCR	**Modified Requirement**		**Remarks**
	OPH	***GPH***	
Others (Returned to NR against taken on loan)	---	---	No projection for return to Northern Railway was reflected in the demand.
Total quantity procured	**507**	**1000**	***The indent for GPH was adjusted to 1000 against demand for 1359 handsets***

Audit observed that

- As of March 2017, 301 OPH and 321 GPH valuing ₹ 4.03 crore were lying idle at Tundla Depot since 2011. Audit noticed that Jhansi Division had not taken into account the availability of these items, while sending the indents for procurement of OPH/GPH in October 2014 and February 2015. While vetting the proposal, Finance division of Jhansi division suggested (July/August 2015) a reassessment of requirement afresh. No action was taken on this suggestion of Finance by the Signal and Telecommunication Department.
- The requirement and issue/ distribution was not consistent at Jhansi and Agra Division.
- The additional 25 *per cent* spare requirement was made without any basis by Jhansi Division.
- The requirement towards return of handsets taken on loan from NR was not projected earlier. Moreover, the model of 100 OPH and 285 GPH returned to NR has been found to be different from that received from NR.

Thus, procurement of OPH/GPH was done without any realistic assessment of requirement. NCR Administration in their reply stated (June 2017) that the requirement of OPH/GPH was justified as all indents of Jhansi Division were approved by competent authority and vetted by finance. The stock from Tundla Depot was not available for diversion to Palwal-Jhansi section as it is for Ghaziabad-Mughalsarai section being a separate work and is under commissioning. However, the Signal and Telecommunication Department did not undertake any reassessment of requirement as suggested by the Finance. Subsequently, it was seen that all these procured handsets could not be utilised and were lying idle.

B. Assessment of reasonability of rates

In response to this tender of March 2016, only one of offer was received. Review of the process of assessment of reasonability of rates received by the Tender Committee (TC) was done in audit. It was seen that

- Jhansi Division estimated the price of OPH at ₹ 1,36,211 and GPH at ₹ 74,724 based on the accepted rate (April 2012) of works contract of Kolkata Metro, where M/s VISPL supplied 12 OPH and 22 GPH in October 2014. The TC did not correlate the quantity of meager supply in Metro Railway case involved in the total contract including system design, planning, supply, installation,

testing and commissioning of GSM-R based MTRC. Besides, rates of individual items in a works contract should not be taken as last accepted rates where consolidated rate for the entire work was accepted and individual items have be potential of being compensated by other items through lower rates for those items. To that extent, the decision of TC to use the rates quoted in a contract in Metro Railway, Kolkata was not judicious.

- The corresponding rates of handsets were also available with IRPMU for 2012-13 (₹ 66,915 and ₹ 29,194 for OPH and GPH respectively) of a discharged tender for Palwal-Mathura-Jhansi section. The tender was discharged on the grounds of non-compliance with the updated EIRENE[176] specification by the bidder and the OPH/GPH procured were lying idle in open condition/ unutilized supplied by the same firm for the past one year.
- NCR Administration issued open tenders for the purchase of OPH/GPH instead of global tender without recording any reason and proper justification for non-issue of global tenders. As the item was not available in India and was to be imported, the reason for floating an open tender was not justified.

Thus, estimates were not arrived at realistically and reasonability of the rates offered was not assessed. NCR Administration in their reply stated (June 2017) that the cost estimates were based on the Last Accepted Rates (LAR) of 2012 of Metro Railway and were appropriate as the rates of individual items are also assessed in works contract as per Railway Board letter (November 1972). The rates of discharged tender of 2012-13 were not reasonable to be compared (being a part of discharged tender).

However, the rates of April 2012 (Metro Railway's works contract) were only for 12 OPH and 22 GPH and were for the entire schedule of work[177] and it did not include acceptance of rates of individual items. Further, in case of this tender (June 2016), for assessment of reasonability of the price offered, the railways had the option to use RBI indices, with 2011-12 rates along with the change in exchange rate between Euro and Rupee. However, the same was not done. This was crucial as only a single response had been received. As regards, not considering the rates of a discharged tender, it is stated that the reason for discharging of the tender was not the reasonability of rates but change in specifications and as such, these rates could have been used as a reference.

C. Undue benefit to the supplier

On 25 November 2011, RDSO gave a certificate for Prototype Approval on Cross Acceptance basis for OPH (Model TiGR 350R) and GPH (Model TiGR 155R) of Sagemcom make issued to M/s NSN for IRPMU contract[178] dated February 2006. The Certificate of RDSO was with reference to the products meeting specification (EIRENE) as prevalent at that time. The prototype clearance was

[176] European Integrated Railway Radio Enhanced Network
[177] Total 23 items including supply of Trans Rate Adaptor, Supply of base station controller, supply of base station transceivers units etc.
[178] Against contract no.IRPMU/W/01/KfW/03-04/CA dated 01.02.2006 of IRPMU

valid in terms of this certificate till such time as there was no change in specification, design, process, raw material, components and source of raw material/components or in software whichever is earlier. Subsequently, RDSO issued its own specifications[179], which were applicable at the time of issue of the tender for the procurement of OPH/GPH of March 2016. These RDSO specifications were stated to have been issued based on EIRENE specifications, which had also undergone revisions between 2011 and 2016.

In December 2015, M/s VISPL sought clarification[180] from RDSO as exclusive distributor of M/s Sierra Wireless (earlier known as Sagemcom) in India that both the models and make i.e. OPH TiGR 350R and GPH TiGR 155R have Cross Acceptance from RDSO. In response RDSO issued a letter[181] to M/s VISPL, informing VISPL about Prototype Approval (on the basis of Cross Approval) of OPH and GPH granted to M/s NSN.

Audit observed that

- Jhansi Division took a budgetary quotation from M/s VISPL on 20 October 2014, which was just one day before sending the indent to NCR. The rational for taking the quote from the firm was not on record. As M/s VISPL was neither an OEM nor VISPL had any cross acceptance approval for this item from RDSO, the basis of taking a budgetary quotation from M/s VISPL was not justified.
- The TC accepted the letter of RDSO dated 04 January 2016 to M/s VISPL as meeting the requirement of Cross Acceptance. Though this letter was not submitted by the bidder (M/s VISPL), it was given cognizance by a Tender Committee Member after obtaining the same from RDSO. The letter of RDSO clearly stated that Prototype Approval for the product was specific to the IRPMU contract and further Prototype Approval for other railways required dispensation and the same could be issued only if make, model and version were not changed. This was thus, not a Cross Acceptance Certificate, which could meet the eligibility of tender terms in this tender.
- Further the information sought by M/s VISPL was relating to an earlier discharged tender and not the current tender. The Prototype Approval on Cross Acceptance basis (November 2011) was given to M/s NSN and was not applicable to M/s Sierra Wireless (the OEM) or M/s VISPL.
- TC however, interpreted the Prototype Approval given to M/s NSN on the basis of the following documents:
    - Certificate of Prototype Approval on Cross Acceptance basis issued to M/s NSN was for the model & make quoted by M/s VISPL.

[179]latest being RDSO/SPN/TC/88/2015 Rev .1.0
[180]Letter no. VISTA/RDSO/Handset/01 dated 28.12.2015 of M/s VISPL
[181]Letter no .STT/WL/MTRC/503/Misc/.Vol.IV dated 04.01.2016 of RDSO

- Photo copy of M/s Sierra Wireless (OEM) certificate (dated 11 September 2015) stating that related business of Sagemcom has been acquired by Sierra Wireless in August 2012.
- Photocopy of letter (dated 18 March 2016) by Sales Director of Sierra Wireless to Controller of Stores (CoS), NCR stating that M/s VSPL would represent Sierra Wireless in the said tender[182].

Through this process, a certificate issued to M/s NSN specific to an earlier IRPMU contract, was linked and taken as valid for a different contract for M/s VISPL and its OEM. Also, Cross Acceptance over Ghaziabad-Mughalsarai MTRC project of IRPMU never evolved to a position, where its performance evaluation could have led to any satisfactory assessment made about M/s NSN or the equipment or its use over other railways in other contracts.

Audit further noticed that

- In the first tender[183] (December 2015), no tenderer responded and subsequently fresh tender[184] was issued in March 2016 with certain modifications, without seeking RDSO approval.
- The terms and conditions of the subsequent tender were modified in favour of supplier M/s VSPL. The condition of 'office establishment of OEM in India with maintenance spare part support' was changed to 'office establishment of OEM in India without maintenance/spare part support'.
- A letter of authorization by M/s Sierra Wireless (OEM) for Annual Maintenance Support in favour of M/s VISPL was submitted by M/s VISPL in its bid. The same was accepted by the TC as meeting the prescribed requirement in the tender.However, issuance of a letter of authorization by OEM in favour of M/s VISPL did not establish availability of appropriate Authorized Maintenance Support System in India. No details of maintenance documents in support being provided by M/s VISPL or OEM in India were sought by the TC.

The above indicates undue favour granted to M/s VISPL by the NCR Administration. Not only quotes were called from the firm without any basis and rational, the TC went out of its way to obtain documentation pertaining to the earlier tender from RDSO, to prove its eligibility for the current tender.

Also, in view of EIRENE specifications having undergone several revisions, the Cross Acceptance of the OPH/GPH was no longer valid as changes in EIRENE and RDSO specification implies changes in specification for the OPH/GPH. Thus, there was no assurance about the consistency of OPH/GPH with the specifications of both EIRENE as well as cross acceptance.

[182] Tender no. 50155116-A
[183] Tender no. 50.15.5116 dated 10.12.2015
[184] Tender no. 50.15.5116A issued on 11.03.2016

D. Utilisation of OPH/GPH supplied

During the analysis of the status of utilisation of procured OPH and GPH, Audit observed that 457 OPH and 955 GPH remained unutilised till July 2017 as given below:

Table 5.4 - status of utilisation of procured OPH and GPH

S.no		Agra	Jhansi	NR	Total
1.	OPH issued	207	200	100	507
2.	OPH distributed	205	50	0	255
3.	OPH undistributed	02	150	100	252
4.	OPH utilized	0	50	0	50
5.	***OPH unutilized***	***207***	***150***	***100***	***457***
6.	GPH issued	415	300	285	1000
7.	GPH distributed	45	0	0	45
8.	GPH undistributed	370	300	285	955
9.	GPH utilized	45	0	0	45
10.	***GPH unutilized***	***255***	***300***	***300***	***955***

Audit analyzed the reasons of non-utilization of OPH/GPH. The OPH/GPH equipment procured for Jhansi and Agra Divisions are required to be registered in the MSC placed at Agra for functioning under MTRC system. It was, however, observed that no new subscriber of OPH/GPH is possible at MSC/ Agra due to its defective and non-functional condition. Further, there is no AMC in place since July 2014 to address the same.

Thus, it can be seen that 457 pieces of OPH and 955 pieces of GPH remained unutilized as of July 2017.The objective of purchasing the handsets at the cost of ₹ 17.77 crore also remains to be achieved.

The matter was brought to the notice of Railway Board on 16 October 2017, their reply has yet to be received (28 February 2018).

5.3 South Eastern Railway (SER): Avoidable liability on account of Spectrum Charges due to failure to review the use of Walkie Talkie sets

Walkie Talkie sets are used in Railways as an emergency communication tool for which Railways have to pay spectrum charges to Department of Telecommunication. Consequent to proliferation of CUG mobile phone, Railway Board directed Zonal Railways to review the use of Walkie Talkie sets. Audit observed that SER Administration did not review the use of Walkie Talkie sets to declare the unusable and non-repairable sets as condemned. This has led to avoidable liability of ₹ 30.36 crore (₹ 21.60 crore on working sets and ₹ 8.76 crore on non-working sets) towards payment of Spectrum charges. As SER Administration has not paid the spectrum charges due as yet, there would also be liable to pay ₹ 20.29 crore towards surcharge on delay payment of spectrum charges.

Railways are using Walkie Talkie sets as an emergency communication tool since long. Ministry of Communication, Government of India decided (April 2004) to

levy spectrum charges (License fee and Royalty) from all wireless users including Central Government Ministries/ Departments from 1st June 2004. On the basis of reference made from the Railway Board, Ministry of Communication and IT and Law and Justice, Government of India had made (December 2006) a reference to the Department of Economic Affairs, Ministry of Finance on levy of spectrum charges. Ministry of Finance in their response stated that spectrum being scarce economic resources should be appropriately priced so that they are optimally utilized and the users should pay spectrum charges. Railway Board communicated (October 2007) that since levy of spectrum charges is a government decision, all Ministries of Government of India including Railways should follow it until decided otherwise.

As per the revised spectrum tariffs issued by DOT in March 2012, ₹ 12500 as Royalty and ₹ 250 as Licence fees per annum is being levied for every VHF Walkie Talkie set being used/procured on Indian Railways. In September 2014, Railway Board instructed for critical review of the number of VHF Walkie Talkie sets in use and bring it down to realistic levels. Accordingly, Chief Signal and Telecom Engineer, South Eastern Railway requested (September 2014) the departmental heads to review use of the Walkie-talkie sets consequent on proliferation of CUG mobile phones. Subsequently, Member Electrical, Railway Board intimated (February 2016) to the General Manager, South Eastern Railway that the issue to re-visit the requirement to pay spectrum charges by Indian Railways for VHF Walkie Talkie sets which are used purely to meet its operational requirement was taken up at appropriate level by the Railway Board with the Ministry of Communication and Information Technology (MoCIT), but the possibility of reduction in charges was remote as other Ministries including para military forces had paid similar charges. It was instructed to review the requirement of VHF Walkie Talkie sets and condemn unusable and non-repairable sets to avoid payment of spectrum charges on those sets. Accordingly, the General Manager, South Eastern Railway instructed (February 2016) the Divisional Railway Managers (DRMs) of four divisions of South Eastern Railway to act on the above lines.

Scrutiny of records revealed that South Eastern Railway Administration had never thoroughly reviewed the actual number of Walkie Talkie sets required for emergency communication or to declare the unusable and non-repairable Walkie Talkie sets as condemned for avoiding payment of spectrum charges on those sets. Except in two occasions (₹ 2.02 crore in July 2015 for 1581 numbers of 5 watt Walkie Talkie sets and ₹ 1.21 crore in February 2017 for 946 numbers of 5 watt Walkie Talkie sets), South Eastern Railway Administration never paid the spectrum charges at the time of new procurement as required.

Scrutiny in Audit further revealed that as on December 2015, South Eastern Railway was holding about thirteen thousand Walkie Talkie sets and spectrum charges were leviable on all those sets as none were declared condemned. As proper records were not maintained, Audit could collect information from 11 out of 33 user units. It was noticed that in 11 units during 2012-13 to 2016-17,

4241 to 7915 5 watt Walkie Talkie sets were available in which 764 to 3064 (18 to 39 *per cent*) sets were not in working condition. Excluding the payment of ₹ 3.23 crore made at the time of procurement of new sets, the liability of spectrum charges from 2012-13 to 2016-17 stood at ₹ 30.36 crore (₹ 21.60 crore on working sets and ₹ 8.76 crore on non working condition sets). In case of delayed payment of spectrum charges, there is also provision by MoCIT for levy of surcharge at the rate of 2 *per cent* per month or part thereof for delayed renewal of licence. As SER Administration is not paying the spectrum charges, surcharge has also accrued on the outstanding amount.

Thus, failure of SER Administration to review the use of Walkie Talkie sets resulted in avoidable liability of ₹ 30.36 crore towards payment of Spectrum charges (₹ 21.60 crore on working sets and ₹ 8.76 crore was on account of sets not in working condition). As the spectrum charges have not been paid by them, they would be liable to pay surcharge of ₹ 20.29 crore as well.

The matter was brought to the notice of Railway Board on 20 December 2017, their reply has yet to be received (28 February 2018).

Chapter 6

Rolling Stock

At Railway Board level, Member Rolling Stock is overall in-charge of Mechanical Department, including Workshops and Production Units (other than locomotives). The works related to EMU/MEMU, and electrical maintenance of all coaching stock is also the responsibility of the Member Rolling Stock.

At Zonal level, the Chief Mechanical Engineer (CME) is responsible for overall supervision and maintenance of all coaches, freight stock etc. Chief Workshop Engineer (CWE) is overall in-charge of the functioning of workshops dealing with maintenance of rolling stock and related items. Production Units are managed independently by General Managers reporting to Member Rolling Stock at Railway Board.

The total revenue expenditure on repair and maintenance of rolling stock (carriage and wagons and plant and equipment) in workshop and operating expenses on rolling stock and equipment were ₹ 14515.51 crore[185] and ₹ 11681.82 crore[186] respectively during the year 2016-17. Further, capital expenditure in production units of coaches during the year 2016-17 was ₹ 295.08 crore[187]. During the year, apart from regular audit of vouchers and tenders, 664 offices of the Mechanical Department were inspected.

This chapter includes one individual paragraph highlighting receipt of wagons 'not due for POH' in Dahod Workshop.

[185] Grant no.06 – Repair and maintenance of carriages and wagons for 2016-17 and Minor Head 300 of Grant no.07 – Repair and maintenance of Plant and Equipment
[186] Grant no.08 – Operating expenses – Rolling stock and equipment for 2016-17
[187] ICF, Chennai, RCF, Kapurthala and MCF, Rae Bareli

6.1 Western Railway (WR): Receipt of wagons not due for POH in Dahod Workshop led to detention and consequent loss of earning capacity of these wagons

Only wagons due for POH should be sent to the workshops. These should be accepted, after due inspection and approval by the workshop staff. However, from June 2013 to March 2017, 434 wagons not due for POH were received in Dahod workshop. Inspection and approval was not being carried out by workshop staff before accepting the wagons for POH. These wagons hindered operational activities as they occupied track inside the workshop and were returned back to the Zonal Railways without carrying any work on them after being detained at the workshop for long periods. This led to avoidable loss of potential earning capacity of ₹16.46 crore due to detention.

Periodical Overhaul (POH) of wagons received from own and other Railways is undertaken in Dahod Workshop of Western Railway. Following instructions have been issued from time to time, regarding procedure to be followed before sending wagons for POH in workshops:

(i) As per Railway Board's directives (October 1994), unloadable wagons in age group of 18 to 25 years with sound under frames requiring heavy repairs on body/floor were to be marked as 'C' category by Train Examiner/ Chief Workshop Supervisors of open line and sent for rebuilding to Dahod, Jamalpur or Charbagh Workshops.

(ii) In July 2013, Railway Board directed Chief Mechanical Engineer, Western Railway that POH workshops should not carry out Routine Overhaul (ROH) of wagons, as wagons for POH were waiting in yard. In case, such wagons are sent along with POH load, the workshop should not carry ROH and turn them out as 'Not Due POH' without attention. It was also reiterated that 'C' category unloadable wagons should not be sent to workshop except when these are due for POH within next one year, which was revised to three months in May 2016.

(iii) Chief Rolling Stock Engineer/ Freight and Operations/ Churchgate (CRSE/F&O/CCG) directed (January 2014) all concerned officials to follow the practice of accepting only such loads for rehabilitation which were inspected and approved by staff of Dahod Workshop.

During scrutiny of records of Dahod Workshop, Audit noticed that unloadable wagons not due for POH were received regularly in the workshop in violation of Railway Board's instructions of July 2013. Audit further observed that despite the instructions issued by CRSE/F&O/CCG, inspection and approval was not being carried out by workshop staff before accepting the wagons for POH. This led to receipt of wagons 'not due for POH' and resulted in accumulation of such wagons in the workshop. Such wagons were further detained due to delayed removal by the Traffic Department. These wagons also hindered operational activities as they occupied track inside the workshop.

Audit observed that during the period from June 2013 to March 2017 total 434 wagons not due for POH were received in the workshop as detailed below:

Table 5.1 – Year wise *number of wagons received not due for POH*

Year	*Number of wagons received not due for POH*
June 2013 to Mar 2014	30
2014-15	0
2015-16	278
2016-17	126
Total	**434**

Audit noticed that

- 81 wagons were removed from the workshops after detention for more than 30 days.
- 35 wagons were removed after delays ranging between 15 days and 30 days.
- 318 wagons not due for POH were detained up to 14 days.
- These wagons were detained up to 1126 days in the workshops leading to loss of potential earnings of ₹ 16.46 crore.
- Further, seven wagons which were sent back as these were 'not due for POH' were received back in the Workshop again during July 2013 to June2014.

On the matter being taken up (December 2015) with Railway Administration, they stated (December 2015) that these wagons were offered for transfer to Open Line sick depots but were not taken by Traffic Department. However, the issue persisted as 173 wagons which were 'not due for POH' were detained up to 38 days in the Workshop during January 2016 to March 2017.

Thus, non-compliance of the prescribed procedures/instructions, lack of coordination and absence of effective monitoring by the Dahod Workshop led to avoidable detention of wagons and consequential loss of potential earnings.

The matter was brought to the notice of Railway Board on 1 September 2017. In reply Railway Board stated (13 November 2017) that to avoid booking of wagons not due for POH/ROH to Dahod workshop, instructions have been issued to all workshops and Open Line. They further stated that to avoid detention of wagons in the workshop, which have been correctly booked for POH, constraints such as availability of material and capacity enhancement are being addressed. They also stated that as the ineffective percentages well within the prescribed limit of four *per cent* no loss of revenue is caused to the Railway.

Audit is of the view that there is a need to strictly follow the laid down instructions and ensure that wagons which are not due for POH are not accepted by the workshop authorities. By exercising the check of inspection and approval, the detention to wagons could be reduced and efficiency in operations can be achieved.

Chapter 7

Autonomous Bodies

There are two autonomous bodies viz., Rail Land Development Authority and Centre for Railway Information Systems under the control of Ministry of Railways. During 2016-17, expenditure incurred by RLDA and CRIS was ₹ 15.58 crore and ₹ 266.30 crore respectively.

This Chapter includes one long paragraph on 'Development of railway land for commercial use by Rail Land Development Authority'. In addition, there are three individual paragraphs on delay in implementation of three IT projects by CRIS.

7.1 Development of railway land for commercial use by Rail Land Development Authority

7.1.1 Executive Summary

The main objective of setting up of RLDA was to generate revenue by non-tariff measures through commercial development of surplus railway land. Audit reviewed development of 17 sites, which were entrusted to RLDA in 2007 when it was constituted and observed that none of these sites have been developed so far. Audit noticed that there were delays in engagement of consultants, delay in submission of reports by the consultants, delay in taking permission from State Government for change of land use, deficiencies in entrustment of land to RLDA by the concerned Zonal Railways by providing encumbered land, identifying wrong site or site with incomplete papers etc. which resulted in non-development of 17 sites of 166.996 acres, reviewed in Audit. Out of 17 cases reviewed, in only three cases developers were appointed, but commercial development did not take place. In two cases, the Development Agreements could not be entered into and Letter of Acceptance had to be cancelled as the first instalment of lease premium was not deposited by the parties and in one case the Development Agreement was terminated as the Developer refused to take the land offered by RLDA in exchange of land originally identified by the Railway and railways had to pay back the lease premium of ₹ 43.12 crore along with interest. Thirteen of these 17 plots were planned for commercial development with a lease potential of ₹ 282.69 crore. Since being set up, RLDA has been able to earn ₹ 67.97 crore from development of Multi-Functional Complexes (MFCs) at railway stations, which is other than the earnings from commercial development of entrusted lands. As against this, expenditure of ₹ 102.29 crore has been incurred towards establishment, consultancy charges, advertisement etc. during 2006-07 to 2016-17.

7.1.2 Introduction

Rail Land Development Authority (RLDA) is a statutory authority under the Ministry of Railways. It was set-up[188] by an amendment to the Railways Act, 1989, for the development of Railway land, as entrusted by the Central Government for commercial use and for the purpose of generating revenue by non-tariff measures. The main functions of RLDA are

(i) to prepare scheme(s) for use of railway land in conformity with the provisions of this Act,

(ii) to develop railway land for commercial use as may be entrusted by the Central Government for the purpose of generating revenue by non-traffic measures,

[188]RLDA was constituted in terms of Extraordinary Gazette Notification dated 31.10.2006, as amended on 05.01.2007. Rules for functioning of RLDA were published in the Extraordinary Gazette dated 04.01.2007.

(iii) to develop and provide consultancy, construction or management service and to undertake operation in India in relation to the development of land and property; and

(iv) to carry out any other work or function as may be entrusted to it by the Central Government, by order in writing.

Commercial development of vacant railway land by RLDA involves the following:

- Inspection of the sites entrusted by Railway to ensure that these are free from any encumbrances or encroachments and suitable for commercial development.
- Appointment of real estate Consultant to get the survey of each plot of land for its valuation and to identify the potential use of the land to provide maximum revenue.
- Calling for an expression of interest/request for proposals from developers for commercial development through Public Private Partnership (PPP), and
- Selecting a suitable developer based on specific technical and financial parameters, after seeking financial bids from shortlisted developers.

Executive Board of RLDA consists of Member Engineering at Railway Board as ex-officio Chairman, one Vice-Chairman and four Members i.e. Member/ Finance, Member/ Planning, Rail Traffic Co-ordination, Member/ Planning, Infrastructure Development and Member/Real Estate and Urban Planning. Each member is assisted by a General Manager, Joint General Manager and other subordinates. Ministry of Railways provides grant to meet the administrative and establishment expenses[189]of RLDA. The entire earnings generated from development of railway land are transferred to the Ministry. Audit conducted this study to assess the extent to which RLDA was able to achieve its main objective of development of railway land for commercial use to generate revenue by non-tariff measures. Audit reviewed the records of RLDA in respect of 20 commercial sites entrusted by the Railways since year 2007.

Audit Findings

7.1.3 Non-development of sites handed over to RLDA

Indian Railways had entrusted 49 commercial sites[190] to RLDA during the period from 2007 to 2017. Out of 49 sites,

- Eight sites were found encumbered i.e. proper land papers were not available for some of them, there were encroachments on some of the sites, in respect of some sites there were litigation going on or State Government clearance were pending in some cases.

[189]Annual expenditure of RLDA was ₹ 12.75 crore and ₹ 15.58 crore in 2015-16 and 2016-17 respectively. Annual Income of RLDA was ₹13.14 lakh and ₹15.37 lakh in 2015-16 and 2016-17 respectively

[190]Commercial sites are such Railways lands which are not near Railway station and are required to be developed by developer for commercial use i.e. Shopping Malls, Multiplex- Cinemas and other commercial purpose etc.

- One site at Jaipur in NWR was proposed for de-entrustment to Railway Board, as NWR had proposed the construction of Holiday Home on the subject land.
- The remaining 40 sites (covering total area of 498 hectares) were found commercially viable as on 31 March 2017. Out of these 40 sites, developers were short listed/fixed in six sites located at Gaya, Bangalore Platform Road, Daba Gardens Visakhapatnam (Ambedkar circle), Vijaywada, GolakaMandir, Gwalior and Old Steam Loco Shed, Sarai Rohilla, Delhi. However,
    - Development Agreements could not be entered into and Letter of Acceptance had to be cancelled in respect of two sites viz. Daba Gardens (Ambedkar circle)/Visakhapatnam (April 2017) and Vijaywada (August 2017) as the first instalment of lease premium was not deposited by them.
    - In respect of one site at Gola ka Mandir/Gwalior, the Development Agreement was terminated (11 April 2012) as the Developer refused to take the land offered by RLDA in exchange of land originally identified by the Railway and railways had to pay back the lease premium of ₹ 43.12 crore along with interest.
    - Three sites at Old Steam Loco Shed, Sarai Rohilla/Delhi, Gaya and Bangalore Platform Road were under litigation since 19 September 2013, 11 May 2015 and 15 January 2016 respectively. At the end of 2016-17, an amount of ₹ 1,189.89 crore was collected as lease premium from these three sites. In respect of site at Gaya, the developer failed to complete the work in extended period of completion and RLDA issued notice for intention to terminate the agreement. The developer moved to Court seeking relief. In respect of sites at Sarai Rohilla and Bangalore, the developers failed to pay the third/fourth instalment of the lease premium and obtained stay against encashment of bank guarantee by RLDA. RLDA terminated the agreement as the project was not completed within the targeted date of completion.
    - Consultancy/valuation/commercial bids etc. were in-progress in respect of 37 sites, excluding three cases under litigation.

Thus, none of the commercial sites entrusted to RLDA has been fully developed so far, even after 10 years. Audit reviewed the position of development of 17 selected sites (plots of land). These were entrusted to RLDA in year 2007 by Railways for development. Three sites[191] were kept out of the purview of the study as the same were under litigation since September 2013, May 2015 and January 2016 respectively. Details of these sites and the current status of development of lands are enclosed in **Annexure 7.1**. Audit analyzed the reasons for non-development of 17 sites over eight Zonal Railways. These are discussed below:

[191]Gautam Buddh Institute, Gaya (Mughalsarai) under litigation since 11 May 2015, Old steam loco shed, Sarai Rohilla (Delhi) under litigation since 19 September 2013, near platform (Bangalore) under litigation since 15 January 2016

7.1.4 Delay in appointment of Consultants

RLDA appoints Consultants to get the survey of each plot of land for its valuation and to identify the potential use of the land to provide maximum revenue. Under the consultancy contracts, the Consultants are required to study and survey the site, collect and verify the records, prepare feasibility report, Master Plan including land use, urban design and associated parameters; preliminary design and architectural concept plans for commercial development of the project site, architectural concept plans for the redevelopment works, developing/ suggesting the financial model, customize bid documents, marketing the projects, assisting RLDA in managing the bid process for commercial development of the projects and selection of developer/bidder etc. As per rules[192], RLDA has to carry out the necessary market survey to assess the potential use of the land to work out the best mode of commercial development from the angle of revenue returns and accordingly proceed with the bidding process.

Thus, before undertaking the financial valuation of the site, it is necessary to undertake feasibility study and market survey to ascertain the land title, verification of boundaries, possible uses of land, suggesting best model for development, period of lease and valuation of returns etc. RLDA engages consultants where the value of land is estimated to be more than ₹ 10 crore during the inspection conducted by RLDA's officials. Audit observed that:

- For engagement of consultant, RLDA invites offers through open tenders. Audit noticed that RLDA had no panel of Government approved consultants till September 2015. In October 2015, RLDA prepared a list of Financial and Marketing Consultants empanelled for financial consultancy service for commercial development of vacant land of Indian Railways.
- RLDA does not have a specific or prescribed methodology for valuation of land. Though RLDA has prepared a broad check list and parameters for various methods, Consultants are free to choose the methodology for valuation of land and give their recommendation based on adequate justification.
- RLDA has not fixed any time frame for appointment of consultant after entrustment of land. Audit noticed that in three cases[193], Consultants were appointed after a lapse of about three years from the entrustment of land, reasons for which were not available on record. In two cases[194], Consultants were appointed after eight years of entrustment, as land details were not available with the concerned Zonal Railway and there were delays in conducting inspection of land. In one case (Katra, Ferozepur Division, land area 42775.72 sqm), the plot was entrusted to RLDA in 2007, no suitable

[192]Clause 5 (b) of RLDA (Constitution) Rules, 2007
[193]Kampoo Kothi, Gwalior (Jhansi), Plots at Salem market station (Salem), Plot at Nagaptinam station
[194] Plots at Pattukoti station (Tiruchirapalli),Plots at Villipuram station (Tiruchirapalli)

offer for appointment of consultant was received (August 2011). RLDA took another five years to appoint (in January 2015) the consultant.

7.1.5 Delay in submission of reports by the Consultants

As per Clause 7 of Request for Proposal (RFP) for engagement of consultant, the Consultants have to submit their reports in 36 weeks. As per conditions of agreements being entered into by RLDA with the Consultants, any delay by the Consultants in commencement or delay in performing its contractual obligations shall render the Consultant liable to any or both of the following:

(i) Imposition of liquidated damages @ 0.5 *per cent* of contract value per week subject to maximum of five *per cent* of contract value. This may include forfeiture of performance guarantee.

(ii) Termination of contract.

Audit observed that in seven cases[195] the Consultants took more than one year in submission of report. RLDA however, took no action against them for such delay in submission and did not recover liquidated damages as per the provisions of the contract with the consultants. Audit assessed an amount of ₹ 3.67 lakh as liquidated damages which should have been realized from these Consultants in seven consultancy contracts.

As per the timeline prescribed in the RFP, RLDA has to accept the report of the Consultant in one week after its submission by the Consultant. Audit, however, observed that in five cases (Vijaywada, Kampoo Kothi (Gwalior), Aurangabad, Salem and Siliguri), RLDA took four months to three years to accept the report of the Consultant due to certain deficiencies and rectification exercise.

7.1.6 Non-preparation of plan for development

RLDA (Constitution) Rule[196] provides that the Authority may prepare a Five Year Plan of the Commercial Development Projects proposed to be taken up for execution. The Authority may also prepare a Five Year Plan for consultancy, construction or management services and operation proposed to be executed by it in relation to development of land and property.

Audit observed that Five Year Plan for development of commercial land was not prepared by RLDA till 2015-16. However, during 2015-16 targets for development of 12 commercial sites was fixed by RLDA which included five sites[197] selected for review in Audit. Of these, letters of acceptance (LOA) were issued for leasing and commercial development of sites at Vijayawada and Vishakhapatnam. However, as the concerned developers did not deposit the 1st installment of lease premium, the LOAs were terminated. Similarly, during the

[195]Katra (Firozepur),Kampoo Kothi, Gwalior (Jhansi), Part of old ITDC Hotel, Aurangabad, Near Moula Ali flyover, Telangana, Kakkapalam, Padi (Chennai), On Station approach road, Raxaul (Samastipur), Old Station area Jamnagar (Rajkot)
[196]Rule 6 of the RLDA (Constitution), 2007
[197]Vijaywada, Vishakapatnam, Katra, Aurangabad, Kampoo Kothi/Gwalior

year 2016-17, five sites (including four selected sites[198]) were targeted for commercial development but none of these sites could be developed as yet.

The reasons for non-development of the sites were delay in providing land and land record by railways, litigation, rejection of highest offer and taking much time to re-appoint the consultant. Some of the important cases are discussed below:

7.1.6.1 Termination of development agreement and payment of interest in respect of land at Gola ka Mandir, Gwalior

After appointment of Developer (January 2009) and receiving lease premium of ₹ 26.57 crore, a Development Agreement (DA) was entered into in August 2009 for the site at Gola ka Mandir at Gwalior (land area 13,216.64 sqm). The procedure[199] laid down for handing over of land to RLDA clearly require that a joint demarcation of the site land will be carried out by RLDA and Zonal Railways, if necessary along with the local revenue authorities and a proper 'Land Plan with schedule' will be prepared and signed jointly showing exact boundaries and important structures/land marks in each direction along with area and other details. A joint 'Handing Over Note' shall be prepared by the Zonal Railways and RLDA duly annexing the 'Land Plan with Schedule'. Audit observed that, this important procedure was not followed by RLDA for preparation of 'Land Plan with Schedule'. As a result, not only the land was found less than the originally allotted area at the time of actual handing over, the *khasra* details were also not incorporated correctly in the DA, while handing over the land to the Developer.

Further, though, the Developer was to submit development proposal with plans within three months, it informed in March 2011 that the market was not conducive enough to construct a Mall in Gwalior. Audit observed that RLDA did not initiate any action against the Developer to terminate the agreement, though the Developer did not comply with the conditions laid down in the DA and did not submit development scheme/plans etc. to RLDA for more than two years against the prescribed period of three months. Meanwhile, Madhya Pradesh State Government took over part of the land for construction of road and RLDA agreed to handover part of land to the State Government. The Developer went to the High Court, where the court decided the case in favour of the Developer. NCR Administration had to refund ₹ 43.12 crore to Developer (October 2015) including 12 *per cent* interest on the lease premium paid by the Developer. Had the 'land plan with schedule' been prepared properly, the developer may have been penalized for not complying with the conditions of the DA and the liability of the interest could have been avoided.

Thus, due diligence was not ensured in preparation of 'Land Plan with Schedule' by NCR and RLDA. RLDA also did not ensure submission of development

[198]Raxaul, Sarai Rohilla, Aurangabad, Katra
[199]Para 8(a) of Railway Board's letter No. 2008/LML/2/17 dated 28 April 2009

plans/scheme by developer. As a result, Railway had to bear additional liability of ₹ 17.65 crore and return the money to the Developer.

7.1.6.2 Rejection of highest offer received for development of land/plot at Old ITDC Hotel at Aurangabad

On the basis of report of consultant (May 2009), a tender was invited for development of site (land area 38,971.23 sqm) by RLDA. Against the reserve price of ₹ 43.45 crore, highest offer of ₹ 52.52 crore was received (June 2011). The RLDA, however, rejected the highest bid and awarded the fresh consultancy contract to the same consultant. The authorities failed to furnish any reasons for rejection of highest bid to Audit. Tender was re-invited in January 2017 after revaluation but no offer was received. Thus, the land/plot could not be developed as yet.

7.1.7 Delay in providing land, land records by Zonal Railways

As per Railway Board's instructions[200], Zonal Railways are responsible to keep the land free from encroachments and all encumbrances. They are required to provide the land to RLDA, after joint demarcation of boundaries of the land jointly with RLDA and preparing and handing over a proper 'Land Plan with schedule' with all relevant details of the land.

Audit observed that

- In two cases[201] in NFR and WR, the land handed over to RLDA by the Zonal Railways, was encumbered. After entrustment of two plots by NFR and WR (in April 2007), RLDA engaged consultants and incurred ₹ 0.21 crore on consultancy. However, development work could not be started as the land was not unencumbered.
- Three plots at station Pattukoti (Tiruchirapalli Division, land area 8,012.776 sqm) were entrusted to RLDA in September 2007. RLDA, in February 2009, requested SR to provide details of land which were provided in April 2009. RLDA, however, took almost six years for examination of land papers and requested SR to verify land plans and to provide ownership documents. Reasons for such delay were not available on record. Consultant appointed in March 2016 gave its report in February 2017 suggesting not to develop the proposed site.
- One Plot on station approach road, Raxaul (Samastipur Division, land area 22,581.46 sqm) was entrusted to RLDA in August 2007. The Consultant submitted report in September 2009. After two years, in October 2011, RLDA started process for obtaining land records which were received in May 2013. These were found to be incomplete by the Consultant. On the advice of the Consultant (May 2014), District Magistrate was approached (October 2014) to provide land records. The same were received in October 2014. RLDA, in

[200] Para 3(c) of Annexure I of Railway Board's letter No. 2008/LML/2/17 dated 27 April 2009

[201] Burdwan Road Siliguri(Katihar)/NEFR (land area 11,994.88 sqm), Old station area Jam Nagar (Rajkot)/WR (land area 11,088.39 sqm)

September 2014, submitted commercial development plan to Executive Officer (EO)/ Raxaul for obtaining No Objection Certificate (NOC). The EO informed that NOC could not be granted as three very busy roads were crossing the proposed site. RLDA approached ECR (December 2014) to close the roads. A revised plan was also submitted in April 2015. ECR, in June 2016, showed its inability to close the roads. In view of this, the Consultant was re-engaged for valuation in October 2016 who has submitted its report in March 2017 which was accepted in June 2017. Tenders were invited in July 2017 and are yet to be opened. Thus, the decision to entrust land for commercial development was injudicious to start with.

- Two plots at Salem market station (Salem, land area 3,318.422 sqm) were entrusted to RLDA in September 2007. The Consultant submitted report in October 2011. In May 2012, SR requested to limit the development work in respect of only one plot. Due to this, the Consultant submitted revised report in April 2014. RLDA, however, took another three years for inviting the tender for lease and development, tender was opened in March 2017 and was yet to be finalized.
- One Plot at Ashok Vihar, New Delhi (Delhi Division, land area 1,32,494.08 sqm) was entrusted to RLDA in September 2007. Based on the Consultant's report of 2008, RLDA obtained specific approval of MoR to undertake residential development[202] on this land in January 2014 i.e. after six years. Due to delay, Consultant was again appointed in August 2016 who submitted report in October 2016. Consultant was asked to submit financial model for 45 years lease period. Valuation was yet to be been done by the consultant.

Thus, there were deficiencies in entrustment of land to RLDA, in two cases, the land was encumbered, in two cases land papers were not in order and it took a long time to get verification from the land authorities and in one case the selection of the site was not judicious.

7.1.8 Change in land use and non-observance of by-laws of State Government

Indian Railways acquired land for its operation purposes i.e. development of Traffic facilities and also reserved surplus land for its future expansion/operational purposes. However, with the passage of time Indian Railways decided to utilize this surplus land for commercial purposes through non-tariff measures. Since the railway land being demarcated in revenue records as 'Public and Semi Public Zone' the same was required to be converted to a 'Commercial Zone' by obtaining permission from concerned State Government through the Change of Land Use (CLU).

As per by-laws, some Open Space to create community facilities as per norms of Government (10 *per cent* of developed land) is required to be kept open and handed over to the local body through a registered deed before commercial

[202]As per Railway Board's letter No.2008/LML/2/17 dated 27-4-2009, RLDA may explore various options including residential for commercial development of land.

utilization of land. This provision is called Open Space Reservation (OSR). Land given under OSR does not revert back to the owner, only permission to develop and maintain the 10 *per cent* land is however accorded from the State Government.

Audit observed that in the following cases, there were delays due to un-resolved CLU and OSR issues, in addition to delays by RLDA in processing the cases:

- In respect of one Plot near Moula Ali flyover, Hyderabad (Telangana, land area 88,962.04 sqm) which was entrusted to RLDA in April 2007, the Consultant submitted its report in June 2008. However, development of the site was put on hold due to decision of SCR to use the land for opening Medical College. The decision for opening of Medical College was reverted in May 2011. In July 2011, RLDA again contacted the Consultant and extended period of consultancy. The matter was further delayed due to non-finalization of CLU and OSR issues till date.
- One plot at Kakkapalam Padi (Chennai Division, land area 21,003.18 sqm) was entrusted to RLDA in April 2007. The Consultant submitted its report in June 2009. However, the site could not be developed, as due to an unresolved OSR issue, no offer was received.
- One Plot near Nagaptinam station (Tiruchirapalli Division, land area 1,294.99 sqm) was entrusted to RLDA in September 2007. RLDA took three years in appointment of Consultant (December 2010). The Consultant submitted its report in September 2011 and suggested to increase the size of plot to make it commercially more viable. Consultant submitted final report in February 2015 and suggested to split the size of plot into two to avoid OSR clause. Meanwhile, RLDA did not take up the issue of CLU with the appropriate authorities and the same was still in process.
- Three plots at station Villipuram (Tiruchirapalli Division, land area 7,081.99 sqm) were entrusted to RLDA in September 2007. After 18 months of entrustment of land, RLDA requested (February 2009) SR to provide details of land which were provided in April 2009. After five years RLDA inspected the site (July 2014) and took another 23 months to appoint Consultant (May 2016) who submitted its report in July 2016. Thereafter, RLDA started the process for change of land use which was still pending.

Thus, these cases were delayed due to unresolved issues of CLU and OSR.

7.1.9 Delay in taking decision for development of land at Nirala Nagar, Kanpur for residential purposes

One plot at Nirala Nagar, Kanpur (Allahabad Division, land area 2,64,886.98 sqm) was entrusted to RLDA in February 2007. RLDA requested Railway Board (January 2009) to accord approval for taking up residential project on this site. Railway Board, however, permitted residential development on this site in January 2014. RLDA further requested Railway Board (July 2015) for increasing the lease period of 90 years for residential development. Railway Board

permitted (August 2015) RLDA for development of land for residential purposes only for a period of 45 years. Process for appointment of Consultant was initiated by RLDA in September 2017.

7.1.10 Conclusion

The main objective of setting up of RLDA was to generate revenue by non-tariff measures through commercial development of surplus railway land. Audit reviewed development of 17 sites, which were entrusted to RLDA in 2007 when it was constituted and observed that none of these sites have been developed so far. Audit noticed that there were delays in engagement of consultants, delay in submission of reports by the consultants, delay in taking permission from State Government for change of land use, deficiencies in entrustment of land to RLDA by the concerned Zonal Railways by providing encumbered land, identifying wrong site or site with incomplete papers etc. which resulted in non-development of 17 sites of 166.996 acres, reviewed in Audit. Out of 17 cases reviewed, in only three cases developers were appointed, but commercial development did not take place. In two[203] cases, the Development Agreements could not be entered into and Letter of Acceptance had to be cancelled as the first instalment of lease premium was not deposited by the parties and in one[204], case the Development Agreement was terminated as the Developer refused to take the land offered by RLDA in exchange of land originally identified by the Railway and railways had to pay back the lease premium of ₹ 43.12 crore along with interest. Thirteen of these 17 plots were planned for commercial development with a lease potential of ₹ 282.69 crore. Since being set up, RLDA has been able to earn ₹ 67.97 crore from development of Multi-Functional Complexes (MFCs) at railway stations[205], which is other than the earnings from commercial development of entrusted lands. As against this, expenditure of ₹ 102.29 crore has been incurred towards establishment, consultancy charges, advertisement etc. during 2006-07 to 2016-17.

7.1.11 Recommendations

1. ***Railways may take timely action to seek clearance from the respective State Governments for change in land use and open space reservation and also examine the legal implications of change of land use in consultation with the State Governments.***
2. ***Following the norms of local authorities, Zonal Railways may identify and entrust only unencumbered sites to RLDA and ensure complete documents/records for the same.***
3. ***RLDA may ensure timely appointment of consultants. RLDA may also enforce the terms and conditions of the agreements so that they complete their work on time and take action on their reports expeditiously. RLDA***

[203] Old Steam Loco Shed, Sarai Rohilla/Delhi, Gaya and Bangalore Platform Road
[204] Gola ka Mandir at Gwalior
[205] besides earning of ₹ 7.55 crore received from IRCON towards development of MFCs and ₹ 4.82 crore towards amount forfeited on account of cancelled agreements for development of MFCs

needs to put in place a mechanism to ensure early finalization of development contracts by setting up reasonable time lines for each activity.

4. ***Before attempting to commercially exploit vacant land, railways may consider offering the land to the State Government/Local Bodies/other departments for public purposes, lest they become an impediment for development of land.***

The matter was brought to the notice of Railway Board (02 February 2017); their reply was awaited (28 February 2018).

7.2 Centre for Railway Information System (CRIS): Delay in Implementation of Indian Railways Disaster Recovery Data Centre for IT Applications

Railway mooted the proposal for setting up of a Disaster Recovery Data Centre in June 2007. Ten years have passed, but the railways were yet to finalize the same. There were delays at every stage and the decision for entrustment of work of construction was yet to be taken. Though the interim disaster recovery (DR) site for Passenger Reservation System (PRS) and Unreserved Ticketing System (UTS) has been made functional, it is located in the same building as the Railway Reservation Complex. There is an urgent need to set up the DRDC at a remote location, on priority, so that it can mitigate the risk arising out of incidents such as serious fire, earthquake or terror attack etc.

Centre for Railway Information Systems (CRIS), an autonomous body, functions as an IT arm of the Indian Railways. Indian Railways has developed and implemented a large number of IT applications[206] that have been deployed in data centers across the country and which are critical for the operations of Indian Railways. Such critical IT applications require high availability with permissible target service uptime of 99.9 *per cent*. To achieve such high uptime, a comprehensive business continuity strategy in the form of a full-fledged Disaster Recovery (DR) system is required at a remote location which could take care of any eventuality which might arise from regional level incidents such as serious fire, earthquake or terror attack etc.

In June 2007, Railway Board sanctioned Disaster Management System for PRS at five locations at an estimated cost of ₹ 37.34 crore. In May 2008, Railway Board sanctioned ₹ 50 crore for Disaster Recover System for Freight Operations Information System (FOIS) project, which also included funds for implementation of Disaster Recovery Data Centre[207], to be set up by CRIS. In February 2012, CRIS earmarked a sum of ₹ 17.71 crore[208] for Disaster Recovery Data Centre (DRDC) to cater to the following requirements:

[206]Like Passenger Reservation System, Unreserved Ticketing System, Control office Application, Freight Operations Information system, e-Procurement System etc.

[207]It consisted of Disaster Recovery Centre at Secunderabad and Data Centre at CRIS, Chanakyapuri, New Delhi (₹ 10.88 crore for Data Warehouse, ₹ 18.72 crore for Disaster Recovery and ₹ 19.86 crore for Data Centre).

[208]₹ 5.61 crore was earmarked out of ₹ 37.34 crore sanctioned for PRS project and ₹ 12.1 crore was earmarked out of ₹ 50 crore sanctioned for FOIS project.

- DR setup for Passenger Reservation system (PRS), Unreserved Ticketing System (UTS), Freight Operations Information System (FOIS) and other existing applications[209].
- DR System for all the applications to be centrally managed by CRIS (e.g. Human Resources Management System, Track Management System etc.)

An area of 15000 sqm was identified (March 2010) at Maula Ali, Secunderabad for setting up/creation of DRDC by Railway Board in October 2010. For carrying out a requirement study, preparing a request for proposals (RFP) and associating with award of work for setting up a DRDC at Secunderabad, a tender was floated by CRIS in May 2010. The Work Order was placed on M/s 3i InfoTech Limited, Noida in July 2010 at a cost of ₹ 12.50 lakh. As per the terms of reference of the Work Order following time lines were fixed for various activities:

Table 7.1 – Timeline for activities in the DRDC projects

Activity	Timeline
Preparation and submission of essential reports such as Inception Report, Data Centre Sizing Report, and Preliminary Design Report by the consultant	Within 8 weeks of placing work order (by 17 September 2010)
Preparation of Bid documents/technical specifications and bill of material	Within 11 weeks of placing work order (by 08 October 2010)
Award of tender for DRDC was to be issued by the Consultant/Contractor	Within 20 weeks from the date of issue of Work Order of 23 July 2010 (by 11 December 2010)

First draft Request for Proposal (RFP) was presented by the consultancy firm in December 2010 and final RFP was submitted on 16 April 2012. The delay was attributed to change requests made by CRIS after submission of RFP viz. revised versions submitted by the firm on 22 April 2011, 31 May 2011, 20 July 2011 and 16 February 2012 respectively. An expenditure of ₹ 9.95 lakh was incurred for hiring the consultancy firm for preparation of various reports[210].

During November 2011 and June 2013, CRIS incurred an expenditure of ₹ 41.92 lakh (approx.) on shifting of 33 KVA high tension wire from site and allied activities (diversion of PIJF UG cables[211], construction of fencing etc.) in connection with setting up DRDC.

As per the terms of reference of the consultancy contract, tender for DRDC was to be awarded by 11 December 2010. Due to delay in finalization of RFP (tender) and other documents submitted by the consultancy firm, the tender could not be issued within the target date. The tender was floated on 5 July 2012 by CRIS and opened on 22 March 2013. Delay in opening of tender was attributed to

[209]Indian Railways has computerised its various processes pertaining to Establishment, Accounting, Engineering, Production, Workshops, Operations (Train operations), Inventory Management including Inventory Procurement, Manpower Management, Hospital Management etc.
[210]Inception Report, Data Centre sizing Report, Preliminary design report, Preparation of Bid documents & Technical specification and bill of material report
[211] Polyethylene Insulated Jelly Filled Under Ground (PIJF UG) communication cables

queries and subsequent modification in the tender conditions. The offer submitted by the eligible firm at ₹ 39.98 crore against the estimated tender cost of ₹ 17.64 crore was beyond the power of nominated tender accepting authority. The rates offered in the bid indicated requirement of higher funds. The tender was not finalised within the validity of the offer (30 May 2014). Extension of the validity of the offers sought for in March 2016 was not agreed to by the vendor. MD/CRIS, thus, discharged the tender in April 2016 due to high cost/expiry of the validity period of the offer.

In May 2016, Railway Board sanctioned another work for setting up disaster recovery site for five projects (i.e. IPAS, e-RECON, ARPAN, TAMS and WAMS[212]) at a cost of ₹ 26.38 crore. In October 2016, a number of options for setting up DRDC at Maula Ali (Secunderabad) (including entrustment of the work to Construction organization of SCR) were under consideration of CRIS. No final decision was available on record (August/September 2017).

In order to have an interim disaster recovery (DR) site for Passenger Reservation System (PRS) and Unreserved Ticketing System (UTS), an interim DR site for PRS and UTS was made functional since 11 March 2012 from the 1st floor of Railway Reservation Complex, Secunderabad. However, in June 2015, there was incessant rain in Hyderabad which resulted in water seepage from the roof of the DR room and water also leaked into server racks. Though, remedial measures were taken to avoid such instances, SCR emphasized for expediting the process of setting up DR site as this was the only DRDC for the entire Indian Railways. However, no significant/tangible progress was made in the matter till September 2017.

Thus, ten years after the proposal for setting up of a Disaster Recovery Data Centre was mooted, railways were yet to finalize the same. There were delays at every stage and the decision to entrustment of work of construction was yet to be taken. Though the interim disaster recovery (DR) site for Passenger Reservation System (PRS) and Unreserved Ticketing System (UTS) has been made functional, it is located in the same building as the Railway Reservation Complex. The loss of data in case of disaster can have serious legal implications as well. ***It is recommended that Railways may set up the DRDC at a remote location on priority, so that it can mitigate the risk arising out of incidents such as serious fire, earthquake or terror attack etc.***

CRIS, in its reply (February 2017) clarified that the nature of work was complex and CRIS had no previous experience and also stated that the expenditure incurred on shifting of the 33 KVA high tension wire was inevitable. Thus, DRDC project was yet to take off and the Railway IT applications remains vulnerable to the risk of interruption due to any disaster.

The matter was brought to the notice of Railway Board (02 February 2017); their reply was awaited (28 February 2018).

[212] IPAS – Integrated Payroll and Accounting System; eRecon is web based portal for reconciling transfer transactions across Railways; ARPAN – Advanced Railway Pension Access Network; TAMS – Traffic Accounts Management system; WAMS – Workshop Accounts Management System

7.3 Centre for Railway Information System (CRIS): Delay in Implementation of Geographical Information System (GIS) Mapping & Geospatial Database for Indian Railway Assets

The project on 'Development of a comprehensive web based databank for land and asset management for optimum utilization of resources' was put forward in June 2012, it remains at initial stages of implementation till date. The main reasons for slow progress were delay in finalization of estimates, delay in execution of MoU, failure to adhere to MoU targets and delay in conducting GPS survey by the Zonal Railways. There is a need to expeditiously implement the project, so as to derive the intended benefits of simplified asset management, easy visualization and management of day-to-day operations, assessing location of rolling stock on the GIS map, effective planning for traffic and easy visualization of the affected area during the time of a disaster.

Minister for Railway's in his budget speech of 2011-12, announced 'Development of a comprehensive web based databank for land and asset management for optimum utilization of resources'. Accordingly, a proposal for a project titled 'GIS Map and Geospatial Database of Indian Railways Assets', was mooted in December 2011. The project envisaged development of a computer based system, for mapping of information relating to various civil engineering assets[213], land & amenities (L&A) assets[214], mechanical engineering assets[215], signal and telecommunication (S&T) assets[216] and safety assets[217]. The project was sanctioned by Railway Board in June 2012 at an abstract cost of ₹ 36.24 crore. The roadmap of the project included the following:

- To prepare a GIS map of an appropriate resolution of entire IR,
- To include spatial (thematic) artifacts, relevant to IR, in the map,
- To associate basic attributes to each artifacts, relevant to each department,
- To prepare interfaces to key applications of IR,
- To provide decision support system with spatial details,
- To design and integrate disaster management to provide better response at the time of disaster; and
- Better monitoring, condition assessment, performance and alternative evaluation of physical assets of IR.

As per the initial plan, the project was proposed for execution under two phases and area of interest was divided in the following two categories:

- **Focus areas** –This included railway assets in cities, stations, yards, major bridges and other areas, where high resolution mapping was required.

[213]Track-line (electrified-non electrified), bridges, tunnels, level crossings, yards, sidings etc.
[214]Railway buildings, colonies, stations, station facilities/passenger amenities, workshops, sheds, maintenance depot etc.
[215]Sick lines, production units etc.
[216]Signal and interlocking system at stations/sections, OFC network, power supply equipment's, cables, control phones etc.
[217]Like location, address, telephone numbers of civil administration, civil/railway hospitals, fire brigade, school, helipad, Accident Relief Train etc.

- **Non-focus areas** – This included permanent way, its surrounding land in the hinterland where high resolution mapping was not important.

The project was intended to provide benefits in terms of simplified asset management, easy visualization and management of day-to-day operations, assessing location of rolling stock on the GIS map, effective planning for traffic and easy visualization of the affected area during the time of a disaster.

Chief Administrative Officer/FOIS[218] (CAO/FOIS) was nominated (November 2012), as project executing agency for implementation of the project and the project (application) was assigned to Center for Railway Information Systems[219] (CRIS). Since NR was undertaking a project on 'Management Information System for Indian Railways (Phase I Land), they approached (November 2014) Railway Board for assignment of the GIS project to it. Being the custodian of all land assets of IR and also being responsible for maintenance of most of the railway assets, Engineering Department of NR was entrusted with the responsibility of project execution. Chief Engineer (TMS)/NR was nominated nodal officer for implementation of the project.

In March 2015, Railway Board approved a proposal of NR for forming a committee of six officials representing Railway Board, Survey of India (SOI), CRIS, National Spatial Data Infrastructure (NSDI) and National Remote Sensing Centre (NRSC) to deliberate and guide in establishing of Indian Railway's GIS portal and mapping of Indian Railway's land and other assets along with background map and to synergise and facilitate inputs required from NRSC, SOI and NSDI. The Committee recommended (23 November 2015) software platform for database layer, GIS development layer, GIS portal layer and stated that the relevant software packages were immediately required.

MoU for the project was executed between CRIS and NR on 18 October 2016. It included detailed estimates, scope of the work, terms and conditions, payment details, milestone and targets, deliverables, warranty supports, roles/ responsibilities of parties to MoU etc. The milestones envisaged in the MoU and their status was as follows:

Table 7.2 - Status of various milestones as envisaged in the MoU as on 15 September 2017

S.no	Milestone	Target for completion	Status of actual work executed by CRIS
1	Preparation of SRS (concept) document for GIS	2 weeks	Not prepared
2	Tender for hand held GPS devices, GIS platform hardware and software and land plan digitization	6 weeks	Tender should have been finalized by the end of November 2016, but tender for procurement of hardware infrastructure and its associated software was floated and the tender was scheduled for opening on 20 September 2017.
3	Placement of PO for hardware and software	20 weeks	Yet to be done

[218] Freight Operations Information System

[219] An autonomous body functioning as an IT arm of Indian Railways, for setting up database and developing the IT application

Table 7.2 - Status of various milestones as envisaged in the MoU as on 15 September 2017			
S.no	Milestone	Target for completion	Status of actual work executed by CRIS
4	Installation, commissioning and testing of hardware and software	24 weeks	Yet to be done
5	Application development and hosting in stages	34 weeks	Yet to be done
6	Uploading and processing of filed data on GIS platform	42 weeks	Yet to be done
7	Publishing of GIS map (First Version)	52 weeks	Yet to be done

As per the milestones mentioned above, the work was to be completed within 52 weeks from the date of signing of the MoU i.e. by October 2017. Further, as per the Budget pronouncement of Minister for Railways in 2014-15 and 2015-16, GIS/GPS mapping of various assets of Indian Railways was to be completed during the current year. All assets were to be mapped and made possible to view on Satellite. A GPS survey for domain data was to be done by Zonal Railways.

In September 2015, CRIS submitted detailed estimates of the pilot phase of the project to NR for examination and approval. Detailed estimates were approved (27 May 2016) by NR at a cost of ₹ 32.74 crore[220]. CE/TMS, NR requested CRIS in July 2016, August 2016, November 2016 and March 2017 to expedite the action for processing the procurement of hardware/software items. Further, Railway Board also requested (November 2016) NR to put the project work on fast track mode and implementation plan for the same should include all divisions of IR with immediate effect. During August 2017, CRIS processed a tender for procurement of hardware and associated software of the project which was scheduled for opening on 20 September 2017.

In this regard, the following was observed

- The project was sanctioned in June 2012. However, no significant progress in the project was made by CRIS for a period of almost 30 months since sanction of the project, as a result of which, it was re-allotted to NR (January 2015). CRIS prepared detailed estimates in September 2015, which were approved by NR in May 2016 after nine months.
- The MoU was executed in between NR and CRIS after another 21 months in October 2016. A review of the position of work vis-à-vis target/milestones of work specified in the MoU revealed that work did not progress as per the milestones laid down in the MoU. The milestone of two weeks for Preparation of SRS (concept) document for GIS was not realistic and was

completely disregarded. The same was yet to be prepared. The tender process was also running a year behind schedule.

- GPS survey for domain data was to be done by Zonal Railways. Railway Board had given a target for completion of the work by 31 December 2015. However, the work was still in progress as on September 2017.

Thus, even after a period of more than five years since the sanction in June 2012, the project was at the initial stage of execution due to delay in finalization of estimates, delay in execution of MoU, failure to adhere to MoU targets and delay in conducting GPS survey by the Zonal Railways.

NR (Nodal office for the project) in their reply stated (December 2017) that day to day activities of railways are in no way affected by the delay in execution of the project as the project is a step towards system improvement and digitalization of railway assets is for better management and optimization of resources. ***Audit agrees that it is a way forward and recommends that railways may expeditiously implement the project, so as to derive the intended benefits of simplified asset management, easy visualization and management of day-to-day operations, assessing location of rolling stock on the GIS map, effective planning for traffic and easy visualization of the affected area during the time of a disaster.***

The matter was brought to the notice of Railway Board (02 February 2017); their reply was awaited (28 February 2018).

7.4 Centre for Railway Information System (CRIS): Delay in Implementation of Land Management System over Indian Railways

The proposal for introducing a web based Land Management System on Indian Railways was initiated in January 2011. In view of the large area of land under the jurisdiction of the railways, the proposal was important as it envisaged incorporation of land related matters i.e. land records, land boundary verification, land leasing/licensing, process of prevention and removal of encroachment, commercial exploitation of land etc. into a web based application. However, due to delay in finalization of estimates, delay in execution of MoU, failure to adhere to MoU targets and delay in conducting GPS survey by the Zonal Railways, implementation of the same was yet to be started. There is a need to expeditiously implement the project, so that, as envisaged the manual register/records can be dispensed with and the railway land plans, State Government Revenue Plan, geographical features of the railway land and adjoining areas are captured on GIS platform.

Railway Board (January 2011) proposed to introduce web based Land Management System on Indian Railways and directed Centre for Railway Information Systems (CRIS), an IT arm of Indian Railways, to prepare abstract estimates for sanction of work under the plan head of 'Computerization'. In February 2011, CRIS submitted an abstract estimate at a cost of ₹ 8.60 crore to Railway Board. The project envisaged conversion of land related matters i.e.

land records, land boundary verification, land leasing/licensing, process of prevention and removal of encroachment, commercial exploitation of land etc. into a web based application. The objective was to dispense with the manual register/records and to put the railway land plans, State Government Revenue Plan covering railway land and small stretch on either side, geographical features of the railway land and adjoining areas on GIS[221] platform.

The first phase of the project 'Management Information System on Indian Railways Land (Phase I)' was included (January 2012) in the Works Programme 2011-12 at an abstract cost of ₹ 4.0 crore. The project was entrusted to CRIS in January 2012. Principal Chief Engineer, Northern Railway was nominated as nodal officer for execution of the work. In February 2012, CRIS was authorized to execute Land Management System (Phase I) (LandMS) as a pilot project on Ambala (NR) and Secunderabad (SCR) divisions of Indian Railways. During the meeting, it was envisaged to complete the work within 10 months. The scope was changed to Ahmedabad division only, in February 2013.

The execution of the project starts after approval of abstract estimates, detailed estimates (DEs) and execution of MoU between CRIS and Railways. CRIS submitted (July 2012) detailed estimates for ₹ 4.69 crore to Railway Board for the pilot project of GIS based Land Management System (Phase 1) for Ambala division. Audit observed that, as the proposal was not routed through Northern Railway (the nominated railway for the work) and detailed estimates were not vetted by finance and approved by GM/NR, Railway Board did not approve (August 2012) the same. They also cited other reasons like not quoting the basis of the rates in the estimates, not attaching the variation statement etc. for not approving the estimates. Thereafter, Railway Board reduced the Abstract Estimates of ₹ 8.6 crore prepared by CRIS, to ₹ 4 crore without intimating CRIS about the bifurcation of reduction in the cost in various subheads.

For implementing the pilot project in Ahmedabad Division, CRIS requested WR to make available land plan and other records in digitized form and nominate officials for coordination and related activities pertaining to the project. Since CRIS did not have experience/knowhow for GIS part of the software development, they consulted various market leaders and submitted (March 2013) detailed estimate (DE) of ₹ 5.69 crore to Railway Board. CRIS added that the area of application was new for CRIS, hence, it was not possible to list out all the activities in the DEs and price them correctly. In the DE, CRIS set a period of 12 months for completion of the work. The work in respect of Ahmedabad Division only was initiated.

In May 2013, Railway Board directed CRIS to execute MoU with NR (the nodal office for execution of the project). Audit observed that though the process for execution of MoU was started in May 2013, MoU was yet to be executed

[221]A Geographic Information System (GIS) is a system designed to capture, store, manipulate, analyze, manage, and present all types of geographical data and enables visualize, question, analyze and interpret data to understand relationships, patterns, and trends.

(November 2017). Reasons for non-execution of the MoU were not available on record.

Audit noticed that CRIS stated inadequacy of manpower as a constraint and requested (March 2013) Railway Board to make available staff for the project. Audit further noticed that, NR was not satisfied (August 2013) with the project plan prepared by CRIS and attributed the same to inadequate and incomplete domain knowledge. Despite directives from the project implementing authority (NR), CRIS did not take any action in the matter till July 2014. NR also highlighted (April 2014) that the progress of the project was held up due to lack of action on the part of CRIS. In July 2014, CRIS informed Railway Board that it was not aware about the scope and role required to be played by CRIS.

In June 2016, Railway Board again directed to undertake pilot implementation of LandMS project at Ambala, Ahmedabad and Secunderabad divisions. In October 2016, after a period of more than three years, CRIS re-processed the DEs and NR approved DEs at a cost of ₹ 4.05 crore (August 2017) for three divisions. Audit observed that, without implementing the pilot phase of the Land MS project, CRIS proposed (September 2016) all India rollout of LandMS project at an abstract cost of ₹ 16.98 crore for inclusion in the budget of 2018-19.

In the budget estimates for the financial year 2017-18, a provision of ₹ 70 lakh was made for LandMS. In November 2017, Railway Board constituted a core group of four members[222] for coordination to provide input and decide various issues related to development of the application and set a target date of 31 March 2018 for development of the IT application. However, as of November 2017, only detailed estimates of the project were sanctioned and MoU with Railway Administration for project development and implementation was yet to be executed.

In this regard, the following was observed

1. After a period of two and a half years of entrustment of project, CRIS enquired about the scope and their role in the project. This clearly indicated lack of synchrony between NR and CRIS.
2. CRIS did not follow due procedure in preparing detailed estimates. It did not route the proposal through NR, did not get the estimates vetted by the associate finance of NR and did not give the basis of rates adopted in the estimate and the details of cost escalation. As a result, Railway Board did not approve the estimates, which added to the delay.
3. Though the project was entrusted to CRIS in January 2012, the process of execution of MoU started in May 2013 only. However, the same was yet to be executed (November 2017).
4. CRIS submitted proposal for all India rollout of LandMS project at an abstract cost of ₹ 16.98 crore for inclusion in the budget of 2018-19, while the pilot phase implementation was yet to take off.

[222] Chief Engineer (TMS)/NR, Executive Director (Track/P)/RB, Executive Director (L&A-1)/RB and Chief Engineer (MRTS)/NR were members of the Core Group

Thus, the project was being executed without any synchronization of efforts, without providing requisite manpower and without following due procedure, which led to delay of six years (from January 2012). Without completing pilot project, proposing all India roll out is also not prudent and this needs to be reviewed.

In December 2017, in response to an audit query about the impact of delay in the execution of the project, NR (Nodal office for the project) communicated that day to day activities of railways are in no way affected by the delay in execution of the project as the project is a step towards system improvement and digitalization of railway assets is for better management and optimization of resources.

Thus, delay in implementation of the project, the benefits in terms of system improvement and better management and optimization of resources are yet to be derived. Besides all India roll out without completing pilot project may be fraught with the glitches and needs to be reviewed. ***It is recommended that railways may expeditiously implement the project, so that, as envisaged the manual register/records can be dispensed with and the railway land plans, State Government Revenue Plan, geographical features of the railway land and adjoining areas are captured on GIS platform.***

The matter was brought to the notice of Railway Board (02 February 2017); their reply was awaited (28 February 2018).

Chapter 8

Public Sector Undertakings (PSUs)

There are 37 Public Sector Undertakings (PSUs) as on 31 March 2017 under control of Ministry of Railways. These PSUs were set up by the Ministry with varied and specific objectives of raising finance for its rolling stock, manufacture of wagons, executing infrastructure projects, managing containerization of rail traffic, catering and tourism, station development, utilise railway telecommunication network etc. During 2016-17, Indian Railways invested ₹ 7184.13 crore in various Railway PSUs.

This Chapter includes two individual paragraphs on grant of mobilization advance to contractors and deficient planning in procurement of high speed bogie assemblies by MRVC.

8.1 Mumbai Railway Vikas Corporation ltd. (MRVC): Injudicious payment of Mobilization Advance to contractors

In contravention of codal provisions and Railway Board's guidelines, MRVC granted mobilization advance of ₹ 6.17 crore to contractors in nine contracts. The value of these contracts was below ₹ 25 crore prescribed by Railway Board. The rate of interest charged by MRVC was also much lower than that prescribed by the Railway Board. None of the nine works could be completed within the scheduled date of completion. Besides, MRVC was unable to ensure full recovery of Mobilization Advances granted as ₹ 0.09 crore is yet to be recovered. Even the amount recovered involved significant delays.

Codal provisions[229] stipulate that Executive should, as far as possible, abstain from giving advances. However, in case of works which are capital intensive and of specialized nature and estimated value of tender exceeds ₹ 25 crore, suitable provisions may be included in the special conditions of the tender for grant of mobilization advance and advance against machinery and equipment, if the work warrants grant of such advances. It further stipulates that the advance shall be limited to a maximum of 10 *per cent* of the contract value. As per Railway Board's orders of April 2012, the rate of interest on mobilization advance was revised from 12 *per cent* per annum to 4.5 *per cent* per annum above the Base Rate of State Bank of India, as effective on the date of approval of payment of Mobilization Advance. It was also stated that mobilization advance clause shall be restricted only for high value tenders of ₹ 25 crore and above. This order[230] was applicable to all concerned including MRVC.

Central Vigilance Commission (CVC)'s expressed (8 October 1997) its concern about payment of mobilization advances by PSUs and desired that adequate steps may be taken to ensure stipulation of mobilization advance only for selected works and advance should be interest bearing so that contractor does not draw undue benefit. It was stated that timely execution/completion of all projects is an essential requirement of mobilization advance and the contractor would like to draw interest bearing mobilization advance only when he needs to maintain his cash flow. Further, CVC in its guidelines (10 April 2007) expressed that provision of mobilization advance should essentially be need based and decision to provide such advance should rest at the level of Board (with concurrence of Finance) in the organization. It was also mentioned that mobilization advance should be clearly stipulated in the tender document and its recovery should be time-based and not linked with progress of work.

Mumbai Railway Vikas Corporation ltd. (MRVC) is a Public Sector Undertaking (PSU) under Ministry of Railways. As per norms set by MRVC for discharge of its functions, the projects handled by MRVC shall be dealt with as per guidelines issued by World Bank/Railway Board/RDSO/Quality Manual. The technical specifications are followed as issued by RDSO/Railway Board /various Codes and Manuals. Audit reviewed the records pertaining to execution of works by MRVC

[229] Para 1264 of Indian Railway Code for Engineering Department
[230] This order has been added to the Engineering Code vide Correction Slip no.46

related to projects under Mumbai Urban Transport Project (MUTP-2B). It was noticed that

- MRVC sanctioned (December 2009 to November 2013) mobilization advance amounting to ₹ 6.17 crore to contractors in nine contracts which were well below the threshold levels of ₹ 25 crore prescribed for grant of such advances as per Railway Board's order of April 2012 and codal provision.
- None of the above works could be completed within the scheduled date of completion. While two works were completed after a delay of around three years each, two were terminated after completing 21 *per cent* to 26 *per cent* of the work. Remaining five works were running behind schedule by two to three years up to May 2017. As such, purpose of granting mobilization advance for timely execution/completion of projects was defeated.
- The mobilization advance was granted to contractors at the interest rate of six *per cent* and eight *per cent*, which was well below rate prescribed by Railway Board[231]. Audit assessed the loss of interest as ₹ 0.63 crore on account of recovery of interest at lower rate.
- Out of the mobilization advance of ₹ 6.17 crore granted, ₹ 6.07crore have been recovered after delays ranging between three months to 52 months from the scheduled date of completion. As on May 2017, an amount of ₹ 0.09 crore was yet to be recovered from one contractor.

Thus, in contravention of the Railway Board's instructions and CVC guidelines, MRVC sanctioned mobilization advance in contracts below the stipulated contract value at lower interest rate than prescribed by Railway Board. Besides, MRVC was unable to recover the mobilization advance granted to the contractor fully and even recovered after significant delays.

In reply, MRVC stated (July 2017) that they have their own Schedule of Powers, manuals, bidding documents and guidelines for contract management and they do not necessarily follow all the codal provisions and directives issued by Railway Board in management of works contracts. They stated that the orders mentioned by Audit were not applicable to them. They also stated that since a number of major activities being carried out by MRVC are funded by World Bank, the guidelines issued by World Bank are followed by MRVC for preparation of Bid documents. To maintain uniformity the same guidelines are adopted in all contracts irrespective of the source of funding. They stated that, there is no direct link between the mobilization advance and the completion of work.

Audit, however, noticed that Finance department of MRVC during vetting had raised the issue about non-uniformity in granting mobilization advance in contracts and stated that for the same project Chief Engineer's office had not given the mobilization advance and suggested deletion of the clause. However, his views were not considered stating that 'no internal order had been issued in

[231] 12 *per cent* per annum before April 2012 and with effect from April 2012, it was revised to 4.5 *per cent* above the Base Rate of State Bank of India

MRVC to follow Railway Board's orders of May 2015 regarding Mobilization Advance in Works Contracts'.

Grant of mobilization advances to contractors should be governed by the directives of Ministry of Railways (Railway Board). The orders of Railways Board mentioned by Audit were duly addressed to all Railway PSUs including MRVC. Besides, the said project (MUTP-2B) is not funded by World Bank, but funded by Government of Maharashtra and Ministry of Railways on 50:50 basis. Therefore, MRVC needs to follow guidelines issued by the Railway Board while granting Mobilization Advance in Works Contracts. As regards, linkage of mobilization advance with completion of projects, CVC guidelines of October 1997 clarifies that timely completion/execution of all projects is an essential requirement, for which mobilization advance may be granted.

The matter was brought to the notice of Railway Board on 18 October 2017; their reply is yet to be received (28 February 2018).

8.2 Mumbai Railway Vikas Corporation Ltd.: Deficient planning in procurement of high speed bogie assemblies

Mumbai Rail Vikas Corporation Ltd. (MRVC) awarded contracts for procurement of high speed bogie assemblies from M/s Siemens-Austria without assessing availability of the required infrastructure for conducting oscillation trials. There were delays at various stages of execution and consequently the contract was terminated. This resulted in blocking up of capital of ₹ 42.57 crore.

Mumbai Urban Transportation Project (MUTP) was conceived in 1993 with an objective to improve public transport system in Mumbai, with participation of Indian Railways (IR) and Government of Maharashtra (GOM) and financial assistance of World Bank. Phase I of MUTP included procurement, manufacture and retrofitment of Electrical Multiple Units (EMUs), which were to be executed on Mumbai suburban Railways by Mumbai Rail Vikas Corporation Ltd.[232](MRVC). Railway Board (July 2000) decided that MRVC shall invite tenders for procurement of EMUs adhering to the specifications and conditions approved by IR, under technical scrutiny of Research, Design and Standards Organization (RDSO). These EMUs could achieve higher speed up to 130 kmph, as compared to 110 kmph of ICF conventional EMU cars.

Accordingly, MRVC invited global tenders with the approval of Railway Board (July 2003) and awarded a contract (December 2008) to M/s Siemens Transportation System, Austria for supply of 108 high speed bogie assemblies[233] at a cost of EURO 9461491 plus ₹ 1.3 crore. The cost was finally revised to EURO 9552383 plus ₹ 1.30 crore (totaling to ₹ 63.72 crore). The delivery time initially fixed as 6 June 2010, was extended from time to time up to 15 August 2014. Some of the reasons for granting extensions included want of approval of coach lay out and allotment of transportation codes by Railway Board, issue of Speed Certificate and clearance of Railway Safety Commissioner (CRS) for main line

[232] A PSU under Ministry of Railways
[233] 108 high speed bogies were to be used for manufacture of 54 cars of EMU; per car two bogies are required

trials etc. RDSO made a request (May 2013) for issuing of transportation Code for the purpose of oscillation trails, which was finally issued by Railway Board in April 2014. This Transportation Code was also required for speed certificate from CCRS and as such clearance of CRS was also delayed. The first 18 bogie assemblies were required to undergo oscillation trials for prototype approval within 26 weeks from the date of receipt of rake at purchaser's end, while remaining 90 bogies were to be supplied thereafter in series. Integral Coach Factory (ICF), Chennai was required to manufacture the EMU coaches (shells) to be mounted on these bogies in Prototype two 9-car rakes and three 12-car rakes.

The contract conditions specified maximum speed of 110 kmph on main line and 130 kmph on Rajdhani route with 2 degree curve track for these bogie assemblies supplied by M/s. Siemens. The oscillation trails with prototype rakes were required to be conducted on both types of tracks i.e. Main line and Rajdhani track. A prototype 9-car rake was manufactured by ICF at a cost of ₹ 20.68 crore (cost borne by Indian Railways) and received in June 2011 at Mumbai Central Car shed for oscillation trials. The amount of ₹ 21.89 crore was paid (July 2010) by MRVC (March 2012) to M/s Siemens from the amount allocated from World Bank funds towards advance payment (Stage II) as per the contract.

During the review of records, Audit observed that trials could not be conducted within specified period of 26 weeks, due to non-availability of 2 degree curve track in Mumbai sub-urban area. In order to address this issue, RDSO (April 2012) revised the specification of curve on track for oscillation trials from 2 degree to 0.5 -1.0 degree, which was accepted by M/s Siemens. But, results of further trials were not in conformity with the laid down standards.

Subsequently, M/s Siemens proposed to modify the design by way of increase in pressure setting of air spring in the prototype bogie assemblies with the approval of RDSO. However, modified rake too did not achieve speed beyond 80 kmph in the trial held on 23 August 2014, due to speed restriction imposed on account of ongoing track renewal work in the section. In the meantime, Railway Board (April 2014), while according post facto approval to the layout of coaches and transportation codes required for Oscillation trials directed ICF not to manufacture more such coaches till further decision. MRVC was also advised to defer any further delivery of bogies from M/S Siemens till the Railway Board's decision was obtained.

Audit observed that deliberations related to plans for trials, speed certificates, extension of delivery schedule etc. were continued among MRVC, RDSO and M/s Siemens till January 2016 when sanction to conduct Detailed Oscillation Trials was accorded by CRS. MRVC advised (January 2016) M/s Siemens that it should make necessary arrangement and keep the rake with prototype bogies ready for oscillation trial under advice to RDSO. However, despite regular pursuance (February, March and April 2016), followed by notice (October 2016),

M/s Siemens did not revert back about readiness of bogies for trials as per specifications in the contract.

Finally, MRVC terminated the contract (14 December 2016) with M/s Siemens on account of failure to discharge its obligations under the contract and en-cashed (December 2016) the Bank Guarantee (BG) amounting to ₹ 17.09 crore. However, balance amount of ₹ 4.80 crore out of ₹ 21.89 crore paid to M/s Siemens for bogie assemblies up to March 2012 was yet to be recovered (July 2017). In addition to this, return of 40 bull gears and MSU assemblies worth ₹ 3.88 crore handed over by ICF to M/s Siemens was also awaited.

Thus, procurement of expensive bogies, without ensuring the availability of 2 degree curve track and ensuring feasibility of running such high speed bogies on Mumbai Suburban section for oscillation trials, was not judicious. Deficient planning on part of MRVC led to inordinate delays at various stages of execution and consequent termination of contract. This also resulted in blocking up of capital of ₹ 42.57 crore for more than four and half years on account of cost of shells manufactured by ICF (₹ 20.68 crore) and payments made to M/s Siemens (₹ 21.89 crore). Further, shells worth ₹ 20.68 crore were lying idle at Mumbai Central car shed, recovery of ₹ 4.80 crore and return of bull gear/MSU assemblies worth ₹ 3.88 crore from M/s Siemens were still awaited. Failure of the contract for procurement of high speed bogies for EMUs from M/s Siemens has also resulted in non- achievement of intended objectives related to reliability, safety and maintenance in suburban network under the MUTP.

The matter was brought to the notice of Railway Board on 18 October 2017; their reply is yet to be received (28 February 2018).

New Delhi
Dated: 15 March 2018

(Nand Kishore)
Deputy Comptroller and Auditor General

Countersigned

New Delhi
Dated: 16 March 2018

(Rajiv Mehrishi)
Comptroller and Auditor General of India

Annexure 2.1 (Para 2.1.1)

List of premier trains

RAJDHANI				DURONTO				SHATABDI			
S.no	Train No.	From	To	S.no	Train No.	From	To	S.no	Train No.	From	To
1	12235	Dibrugarh	New Delhi	1	12213	Yeshwantpur	Delhi Sarairohilla	1	12001	Habibganj	New Delhi
2	12236	New Delhi	Dibrugarh	2	12214	Delhi Sarairohilla	Yeshwantpur	2	12002	New Delhi	Habibganj
3	12301	Howrah	New Delhi	3	12219	Lokmanya Tilak Terminus	Secunderabad	3	12003	Lucknow NE	New Delhi
4	12302	New Delhi	Howrah	4	12220	Secunderabad	Lokmanya Tilak Terminus	4	12004	New Delhi	Lucknow NE
5	12305	Howrah	New Delhi	5	12221	Pune	Howrah	5	12005	New Delhi	Kalka
6	12306	New Delhi	Howrah	6	12222	Howrah	Pune	6	12006	Kalka	New Delhi
7	12309	Rajendranagar T	New Delhi	7	12223	Lokmanya Tilak Terminus	Ernakulam	7	12007	Chennai Central	Mysore
8	12310	New Delhi	Rajendranagar T	8	12224	Ernakulam	Lokmanya Tilak Terminus	8	12008	Mysore	Chennai Central
9	12313	Sealdah	New Delhi	9	12227	Mumbai Central	Indore	9	12009	Mumabi Central	Ahmedabad
10	12314	New Delhi	Sealdah	10	12228	Indore	Mumbai Central	10	12010	Ahmedaba	Mumbai Central
11	12423	Dibrugarh	New Delhi	11	12239	Mumbai Central	Jaipur	11	12011	New Delhi	Kalka
12	12424	New Delhi	Dibrugarh	12	12240	Jaipur	Mumbai Central	12	12012	Kalka	New Delhi
13	12425	New Delhi	Jammu Tawi	13	12245	Howrah	Yeshwantpur	13	12013	New Delhi	Amritsar
14	12426	Jammu Tawi	New Delhi	14	12246	Yeshwantpur	Howrah	14	12014	Amritsar	New Delhi
15	12431	Thiruvananthapuram Central	H Nizamuddin	15	12259	Sealdah	New Delhi	15	12015	New Delhi	Ajmer
16	12432	Nizamuddin	Thiruvananthapuram Central	16	12260	New Delhi	Sealdah	16	12016	Ajmer	New Delhi
17	12433	Chennai Central	Nizamuddin	17	12261	Chhatrapati Shiviji Terminal Mumbai	Howrah	17	12017	New Delhi	Dehradun
18	12434	Nizamuddin	MAS	18	12262	Howrah	Chhatrapati Shiviji Terminal Mumbai	18	12018	Dehradun	New Delhi
19	12435	Dibrugarh	New Delhi	19	12263	Pune	Nizamuddin	19	12019	Howrah	Ranchi
20	12436	New Delhi	Dibrugarh	20	12264	Nizamuddin	Pune	20	12020	Ranchi	Howrah
21	12437	Secunderabad	Nizamuddin	21	12265	Delhi Sarairohilla	Jammu Tawi	21	12025	Pune	Secunderabad
22	12438	Nizamuddin	Secunderabad	22	12266	Jammu Tawi	Delhi Sarairohilla	22	12026	Secunderabad	Pune
23	12439	Ranchi	New Delhi	23	12267	Mumbai Central	Ahmedabad	23	12027	Chennai Central	Bangaluru
24	12440	New Delhi	Ranchi	24	12268	Ahmedabad	Mumbai Central	24	12028	Bagaluru	Chennai Central
25	12441	Bilaspur	New Delhi	25	12269	Chennai Central	Nizamuddin	25	12029	New Delhi	Amritsar
26	12442	New Delhi	Bilaspur	26	12270	Nizamuddin	Chennai Central	26	12030	Amritsar	New Delhi
27	12453	Ranchi	New Delhi	27	12273	Howrah	New Delhi	27	12031	New Delhi	Amritsar
28	12454	New Delhi	Ranchi	28	12274	New Delhi	Howrah	28	12032	Amritsar	New Delhi
29	12951	Mumbai Central	New Delhi	29	12275	Allahabad	New Delhi	29	12033	Kanpur Central	New Delhi
30	12952	New Delhi	Mumbai Central	30	12276	New Delhi	Allahabad	30	12034	New Delhi	Kanpur Central
31	12953	Mumbai Central	Nizamuddin	31	12281	Bhubaneswar	New Delhi	31	12035	Jaipur	Agra Fort
32	12954	Nizamuddin	Mumbai Central	32	12282	New Delhi	Bhubaneswar	32	12036	Agra Fort	Jaipur
33	12957	Ahmedabad	New Delhi	33	12283	Ernakulam	Nizamuddin	33	12037	New Delhi	Ludhiana
34	12958	New Delhi	Ahmedabad	34	12284	Nizamuddin	Ernakulam	34	12038	Ludhiana	New Delhi
35	22207	Chennai Central	Thiruvananthapuram Central	35	12285	Secunderabad	Nizamuddin	35	12041	Howrah	New Jalpaiguri
36	22208	Thiruvananthapuram Central	Chennai Central	36	12286	Nizamuddin	Secunderabad	36	12042	New Jalpaiguri	Howrah
37	22691	Bangaluru	Nizamuddin	37	12289	Mumbai Central	Nagpur	37	12043	New Delhi	Moga
38	22692	Nizamuddin	Bangaluru	38	12290	Nagpur	Mumbai Central	38	12044	Moga	New Delhi
39	22693	Bangaluru	Nizamuddin	39	12293	Lokmanya Tilak Terminus	Allahabad	39	12045	New Delhi	Chandigarh
40	22694	Nizamuddin	Bangaluru	40	12294	Allahabad	Lokmanya Tilak Terminus	40	12046	Chandigarh	New Delhi
41	22811	Bhubaneswar	New Delhi	41	12297	Ahmedabad	Pune	41	12243	Chennai Central	Coimbatore
42	22812	New Delhi	Bhubaneswar	42	12298	Pune	Ahmedabad	42	12244	Coimbatore	Chennai Central
43	22823	Bhubaneswar	New Delhi	43	22201	Sealdah	Puri	43	12277	Howrah	puri
44	22824	New Delhi	Bhubaneswar	44	22202	Puri	Sealdah	44	12278	Puri	Howrah
				45	22203	Visakhapatnam	Secunderabad	45	12847	Howrah	Digha
				46	22204	Secunderabad	Visakhapatnam	46	12848	Digha	Howrah
				47	22205	Chennai Central	Madurai				
				48	22206	Madurai	Chennai Central				
				49	22209	Mumbai Central	New Delhi				
				50	22210	New Delhi	Mumbai Central				
				51	22213	Shalimar	Patna				
				52	22214	Patna	Shalimar				

Annexure 2.2 a (Para 2.1.3.1)

Statement showing the comparison of occupancy in Rajdhani and Duronto trains

Train No	Train Type	Train Name	Originating Station of train	Destination Station of train	AC 2 tier							AC 3 tier						
					9.9.15-31.7.16			9.9.16-31.7.17			Increase (+)/ Decrease (-) (in per cent)	9.9.15-31.7.16			9.9.16-31.7.17			Increase (+)/ Decrease (-) (in per cent)
					Berth potential	Actual passengers	Occupancy (%)	Berth potential	Actual passengers	Occupancy (%)		Berth potential	Actual passengers	Occupancy (%)	Berth potential	Actual passengers	Occupancy (%)	
12235	RAJ	DBRG NDLS RAJEX	Dibrugarh	New Delhi	13740	11250	81.88	13800	8650	62.68	-19.20	57622	48421	84.03	61274	48103	78.50	-5.53
12236	RAJ	NDLS DBRG RJDHN	New Delhi	Dibrugarh	11408	11451	100.38	11408	8893	77.95	-22.42	46930	49178	104.79	48944	48134	98.35	-6.45
12301	RAJ	KOLKATA RAJDHNI	Howrah Jn	New Delhi	85894	82276	95.79	86570	73626	85.05	-10.74	217836	224712	103.16	227196	229364	100.95	-2.20
12302	RAJ	KOLKATA RJDHNI	New Delhi	Howrah Jn	77212	76626	99.24	76264	67551	88.58	-10.67	203616	218736	107.43	210528	217925	103.51	-3.91
12305	RAJ	KOLKATA RJDHNI	Howrah Jn	New Delhi	15238	15440	101.33	15394	13898	90.28	-11.04	36925	39163	106.06	39013	39578	101.45	-4.61
12306	RAJ	KOLKATA RJDHNI	New Delhi	Howrah Jn	13447	13681	101.74	13057	12269	93.96	-7.78	34616	37524	108.40	35704	38181	106.94	-1.46
12309	RAJ	RJPB RAJDHANI	Rajendranagar T	New Delhi	120672	116748	96.75	119510	111058	92.93	-3.82	203932	207458	101.73	208066	211875	101.83	0.10
12310	RAJ	RJPB RAJDHANI	New Delhi	Rajendranagar T	120620	123817	102.65	119510	111939	93.66	-8.99	195500	212782	108.84	201734	211915	105.05	-3.79
12313	RAJ	SDAH RAJDHANIEX	Sealdah	New Delhi	69160	59542	86.09	69160	53570	77.46	-8.64	337588	325955	96.55	349608	329576	94.27	-2.28
12314	RAJ	SEALDAH RJDHANI	New Delhi	Sealdah	59252	60090	101.41	58728	53563	91.21	-10.21	317620	329481	103.73	327300	328534	100.38	-3.36
12423	RAJ	DBRT RAJDHANI E	Dibrugarh Town	New Delhi	120406	119695	99.41	117367	101539	86.51	-12.90	400140	401026	100.22	412686	414102	100.34	0.12
12424	RAJ	DBRT RAJDHANI	New Delhi	Dibrugarh Town	106290	131646	123.86	105442	115056	109.12	-14.74	312186	403811	129.35	338380	420276	124.20	-5.15
12425	RAJ	JAMMU RAJDHANI	New Delhi	Jammu Tawi	84832	80457	94.84	86368	76807	88.93	-5.91	250677	252416	100.69	275396	266892	96.91	-3.78
12426	RAJ	JAMMU RAJDHANI	Jammu Tawi	New Delhi	86385	81325	94.14	87262	78927	90.45	-3.69	253140	260551	102.93	276960	277936	100.35	-2.58
12431	RAJ	RAJDHANI EXP	Trivandrum Central	H Nizamuddin	39008	42019	107.72	39615	35505	89.63	-18.09	97756	122891	125.71	99385	112459	113.15	-12.56
12432	RAJ	TRIVNDRM RJDHNI	H Nizamuddin	Trivandrum Central	43218	38182	88.35	41418	31503	76.06	-12.29	106530	112162	105.29	102514	97776	95.38	-9.91
12433	RAJ	RAJDHANI EXP	Chennai central	H Nizamuddin	25576	20709	80.97	26144	18052	69.05	-11.92	61824	59010	95.45	63204	56505	89.40	-6.05
12434	RAJ	CHENNAI RAJDHNI	H Nizamuddin	Chennai Central	26220	19706	75.16	26040	17571	67.48	-7.68	64108	60571	94.48	63426	58342	91.98	-2.50
12435	RAJ	DBRT RAJDHANI E	Dibrugarh Town	New Delhi	28458	24068	84.57	28764	19588	68.10	-16.47	126005	102645	81.46	134910	109501	81.17	-0.30
12436	RAJ	NDLS DBRT RJDHN	New Delhi	Dibrugarh Town	25004	28001	111.99	23994	23214	96.75	-15.24	115070	113462	98.60	99696	113260	113.61	15.00
12437	RAJ	RAJDHANI EXP	Secunderabad Jn	H Nizamuddin	11596	8144	70.23	12788	7248	56.68	-13.55	32908	27950	84.93	31096	25763	82.85	-2.08
12438	RAJ	NZM SC RJDHNI	H Nizamuddin	Secunderabad Jn	11602	9525	82.10	13066	8684	66.46	-15.64	34255	32084	93.66	33229	28625	86.14	-7.52
12439	RAJ	RNC NDLS RAJ EX	Ranchi	New Delhi	30092	27554	91.57	30132	22597	74.99	-16.57	60820	60817	100.00	62526	61056	97.65	-2.35
12440	RAJ	NDLS RNC RAJ EX	New Delhi	Ranchi	29620	25098	84.73	30318	20288	66.92	-17.82	57867	59833	103.40	61971	60331	97.35	-6.04
12441	RAJ	BSP NDLS RAJ EX	Bilaspur Jn	New Delhi	31651	22570	71.31	36084	17995	49.87	-21.44	61951	52665	85.01	83849	58544	69.82	-15.19
12442	RAJ	BILASPUR RJDHNI	New Delhi	Bilaspur Jn	28793	21998	76.40	31620	18180	57.50	-18.91	56050	53118	94.77	71138	57937	81.44	-13.33
12453	RAJ	RNC NDLS RAJ EX	Ranchi	New Delhi	33348	24507	73.49	30318	14769	48.71	-24.78	58876	56053	95.21	67854	55752	82.16	-13.04
12454	RAJ	NDLS RNC RJDHNI	New Delhi	Ranchi	32998	26795	81.20	30039	19599	65.25	-15.96	58066	58082	100.03	67235	61768	91.87	-8.16
12951	RAJ	MUMBAI RAJDHANI	Mumbai Central	New Delhi	96806	95365	98.51	94538	88677	93.80	-4.71	268990	282872	105.16	281290	297121	105.63	0.47
12952	RAJ	MUMBAI RAJDHANI	New Delhi	Mumbai Central	90194	84670	93.88	89920	79661	88.59	-5.28	254881	260318	102.13	267688	275148	102.79	0.65
12953	RAJ	AUG KR RAJ EXP	Mumbai Central	H Nizamuddin	105437	102050	96.79	101716	86266	84.81	-11.98	284912	301141	105.70	291462	299687	102.82	-2.87
12954	RAJ	AG KRANTI RJDHN	H Nizamuddin	Mumbai Central	96667	90608	93.73	93013	80609	86.66	-7.07	266978	277316	103.87	270660	278271	102.81	-1.06
12957	RAJ	SWARNA J RAJ EX	Ahmedabad Jn	New Delhi	91086	81334	89.29	90318	70376	77.92	-11.37	254842	252238	98.98	267518	256163	95.76	-3.22
12958	RAJ	ADI SJ RAJDHANI	New Delhi	Ahmedabad Jn	91086	83404	91.57	91650	75932	82.85	-8.72	251970	259323	102.92	267942	267039	99.66	-3.26
22207	RAJ	SUPER AC EXP	Chennai central	Trivandrum Central	12420	8273	66.61	12555	10147	80.82	14.21	47104	33700	71.54	47616	43057	90.43	18.88
22208	RAJ	SUPER AC EXP	Trivandrum Central	Chennai Central	12420	6479	52.17	12555	6897	54.93	2.77	46912	28529	60.81	47616	34540	72.54	11.72
22691	RAJ	RAJDHANI EXP	KSR Bengaluru	H Nizamuddin	54760	51651	94.32	58904	41117	69.80	-24.52	143088	157911	110.36	181488	163231	89.94	-20.42
22692	RAJ	BANGLORE RJDHNI	H Nizamuddin	KSR Bengaluru	53253	51133	96.02	58200	44005	75.61	-20.41	133905	148152	110.64	174200	167750	96.30	-14.34
22693	RAJ	RAJDHANI EXP	KSR Bengaluru	H Nizamuddin	41720	51386	123.17	41720	39921	95.69	-27.48	108835	133672	122.82	128380	132865	103.49	-19.33
22694	RAJ	BANGLORE RAJDHN	H Nizamuddin	KSR Bengaluru	39198	31567	80.53	36696	26073	71.05	-9.48	105198	104381	99.22	117024	104721	89.49	-9.74
22811	RAJ	BBS RAJDHANI EX	Bhubaneswar	New Delhi	17308	15473	89.40	16712	12698	75.98	-13.42	119022	112252	94.31	113056	98698	87.30	-7.01
22812	RAJ	BUBNESWR RJDHNI	New Delhi	Bhubaneswar	16500	15704	95.18	16240	13651	84.06	-11.12	105168	110758	105.32	104160	99845	95.86	-9.46
22823	RAJ	BBS RAJDHANI EX	Bhubaneswar	New Delhi	24340	21568	88.61	23476	18471	78.68	-9.93	160859	146870	91.30	152949	130203	85.13	-6.18
22824	RAJ	BUBNESWR RJDHNI	New Delhi	Bhubaneswar	23346	23709	101.55	22509	20386	90.57	-10.99	142884	148218	103.73	139518	135022	96.78	-6.96
12213	DRNT	DURONTO EXPRESS	Yesvantpur Jn	Delhi S Rohilla	7384	5695	77.13	7520	4334	57.63	-19.49	30808	29650	96.24	37544	27817	74.09	-22.15
12214	DRNT	YPR DURONTO EXP	Delhi S Rohilla	Yesvantpur Jn	7416	3297	44.46	7708	4636	60.15	15.69	30312	19363	63.88	37356	26273	70.33	6.45
12219	DRNT	SC DURONTO EXP	Lokmanyatilak T	Secunderabad Jn	14508	10557	72.77	14508	8454	58.27	-14.50	60264	50052	83.05	67464	46578	69.04	-14.01
12220	DRNT	DURONTO AC EXP	Secunderabad Jn	Lokamanyatilak T	14508	12302	84.79	14508	12745	87.85	3.05	60264	55617	92.29	67680	63669	94.07	1.78
12221	DRNT	HOWRAH DURONTO	Pune	Howrah Jn	14508	14529	100.14	14664	13605	92.78	-7.37	70632	68766	97.36	67824	64072	94.47	-2.89
12222	DRNT	HWH PUNE DURONT	Howrah Jn	Pune	15360	14299	93.09	15712	14468	92.08	-1.01	73496	66222	90.10	70480	66986	95.04	4.94
12223	DRNT	LTT ERS DURONTO	Lokmanyatilak T	Ernakulam Jn	9672	7472	77.25	9672	7458	77.11	-0.14	53568	40313	75.26	53496	38896	72.71	-2.55
12224	DRNT	ERS LTT DURONTO	Ernakulam Jn	Lokamanyatilak T	9776	6569	67.20	9672	6445	66.64	-0.56	54144	33891	62.59	53496	34792	65.04	2.44
12227	DRNT	INDORE DURONTO	Mumbai Central	Indore Jn BG	10148	6925	68.24	10230	7100	69.40	1.16	55268	40573	73.41	54570	39998	73.30	-0.11
12228	DRNT	MUMBAI DURONTO	Indore Jn BG	Mumbai Central	10148	6761	66.62	10340	7132	68.97	2.35	55124	37648	68.30	55156	36504	66.18	-2.11
12239	DRNT	JAIPUR DURONTO	Mumbai Central	Jaipur	10526	7264	69.01	10974	6768	61.67	-7.34	54982	43539	79.19	55614	37781	67.93	-11.25
12240	DRNT	JP BCT DURONTO	Jaipur	Mumbai Central	10392	6570	63.22	10672	4984	46.70	-16.52	56280	38568	68.53	57040	36349	63.73	-4.80
12245	DRNT	HWH YPR DURONTO	Howraj Jn	Yesvantpur Jn	12700	13132	103.40	13048	12219	93.65	-9.76	62656	65233	104.11	70654	72968	103.28	-0.84
12246	DRNT	DURONTO EXPRESS	Yesvantpur Jn	Howrah Jn	12624	12738	100.90	13980	12450	89.06	-11.85	63440	66440	104.73	74488	75168	100.91	-3.82
12259	DRNT	NDLS DURONTO	Sealdah	New Delhi	32204	27140	84.28	41674	24652	59.15	-25.12	144032	138926	96.45	150754	128232	85.06	-11.39
12260	DRNT	SDAH DURONTO EX	New Delhi	Sealdah	31944	29440	92.16	40792	28617	70.15	-22.01	143024	144157	100.79	149200	132785	89.00	-11.79
12261	DRNT	HOWRAH DURONTO	C Shivaji Mah T	Howrah Jn	29172	29442	100.93	28860	26736	92.64	-8.29	137304	141929	103.37	133200	133958	100.57	-2.80
12262	DRNT	HWH CSTM DURONT	Howraj Jn	C Shivaji Mah T	30408	27334	89.89	31422	27267	86.78	-3.11	141016	137636	97.60	140380	136616	97.32	-0.28
12263	DRNT	NZM DURONTO EXP	Pune	H Nizamuddin	13416	13205	98.43	14508	14044	96.80	-1.63	59199	62528	105.62	60264	64305	106.71	1.08
12264	DRNT	PUNE DURONTO EX	H Nizamuddin	Pune	14039	12545	89.36	15252	14145	92.74	3.38	60508	61093	100.97	61938	64035	103.39	2.42

Annexure 2.2 a (Para 2.1.3.1)

Statement showing the comparison of occupancy in Rajdhani and Duronto trains

Train No	Train Type	Train Name	Originating Station of train	Destination Station of train	AC 2 tier							AC 3 tier						
					9.9.15-31.7.16			9.9.16-31.7.17			Increase (+)/ Decrease (-) (in per cent)	9.9.15-31.7.16			9.9.16-31.7.17			Increase (+)/ Decrease (-) (in per cent)
					Berth potential	Actual passengers	Occupancy (%)	Berth potential	Actual passengers	Occupancy (%)		Berth potential	Actual passengers	Occupancy (%)	Berth potential	Actual passengers	Occupancy (%)	
12265	DRNT	DEE JAT DURONTO	Delhi S Rohilla	Jammu Tawi	8600	7514	87.37	7560	5887	77.87	-9.50	62488	61104	97.79	64496	59298	91.94	-5.84
12266	DRNT	DURONTO EXPRESS	Jammu Tawi	Delhi S Rohilla	8652	7140	82.52	7560	5518	72.99	-9.53	62736	61099	97.39	64776	56063	86.55	-10.84
12267	DRNT	ADI DURONTO EXP	Mumbai Central	Ahmedabad Jn	44988	42517	94.51	44988	42255	93.93	-0.58	257702	245539	95.28	257734	240717	93.40	-1.88
12268	DRNT	BCT DURONTO EXP	Ahmedabad Jn	Mumbai Central	45094	41845	92.80	44946	41668	92.71	-0.09	259032	241672	93.30	258105	236779	91.74	-1.56
12269	DRNT	DURONTO EXPRESS	Chennai central	H Nizamuddin	7884	6067	76.95	11562	7639	66.07	-10.88	24680	21142	85.66	30106	26736	88.81	3.14
12270	DRNT	MAS DURONTO EXP	H Nizamuddin	Chennai Central	9530	7597	79.72	10416	8237	79.08	-0.64	27512	27385	99.54	28272	28588	101.12	1.58
12273	DRNT	NDLS DURONTO	Howrah Jn	New Delhi	5076	4303	84.77	5390	4090	75.88	-8.89	27264	27626	101.33	27950	27481	98.32	-3.01
12274	DRNT	HWH DURONTO EXP	New Delhi	Howrah Jn	5076	4310	84.91	5208	3848	73.89	-11.02	27264	28337	103.94	27528	27705	100.64	-3.29
12275	DRNT	NDLS DURONTO EX	Allahabad Jn	New Delhi	16172	16242	100.43	21528	20661	95.97	-4.46	50400	50707	100.61	49680	49364	99.36	-1.25
12276	DRNT	ALD DURONTO EXP	New Delhi	Allahabad Jn	16172	15544	96.12	21840	19124	87.56	-8.55	50400	48554	96.34	50400	46446	92.15	-4.18
12281	DRNT	BBS DURONTO EXP	Bhubaneswar	New Delhi	2466	1569	63.63	2350	1448	61.62	-2.01	14688	11962	81.44	12960	11221	86.58	5.14
12282	DRNT	BBS DURONTO EXP	New Delhi	Bhubaneswar	2564	1769	68.99	2520	1662	65.95	-3.04	14712	13982	95.04	13320	12178	91.43	-3.61
12283	DRNT	ERS NZM DURONTO	Ernakulam Jn	H Nizamuddin	3016	2366	78.45	3748	3318	88.53	10.08	11304	8346	73.83	14608	14180	97.07	23.24
12284	DRNT	NZM ERS DURONTO	H Nizamuddin	Ernakulam Jn	3592	2867	79.82	4038	3125	77.39	-2.43	12624	12629	100.04	15184	16246	106.99	6.95
12285	DRNT	NZM DURONTO EX	Secunderabad Jn	H Nizamuddin	9746	8868	90.99	9672	9244	95.57	4.58	26784	28592	106.75	26784	29692	110.86	4.11
12286	DRNT	NZM SC DURONTO	H Nizamuddin	Secunderabad Jn	9928	7668	77.24	10340	8079	78.13	0.90	27216	24928	91.59	28200	26752	94.87	3.27
12289	DRNT	NAGPUR DURONTO	C Shivaji Mah T	Nagpur	51488	52532	102.03	52968	49653	93.74	-8.29	96120	99175	103.18	94496	95738	101.31	-1.86
12290	DRNT	NGP CSTM DURONT	Nagpur	C Shivaji Mah T	51596	51484	99.78	52996	50008	94.36	-5.42	96040	100356	104.49	94528	97758	103.42	-1.08
12293	DRNT	ALD DURONTO EXP	Lokmanyatilak T	Allahabad Jn	12510	11609	92.80	12711	10810	85.04	-7.75	47552	47945	100.83	50832	47233	92.92	-7.91
12294	DRNT	ALD LTT DURONTO	Allahabad Jn	Lokamanyatilak T	12921	11069	85.67	13113	10220	77.94	-7.73	48348	47267	97.76	51228	47075	91.89	-5.87
12297	DRNT	PUNE DURONTO	Ahmedabad Jn	Pune	21840	20952	95.93	21840	20889	95.65	-0.29	90720	91434	100.79	90720	92019	101.43	0.64
12298	DRNT	ADI DURONTO EXP	Pune	Ahmedabad Jn	21840	19620	89.84	21840	18976	86.89	-2.95	90720	89376	98.52	90720	89198	98.32	-0.20
22201	DRNT	DURONTO EXPRESS	Sealdah	Puri	6900	4240	61.45	7000	4187	59.81	-1.63	36444	28731	78.84	36808	29717	80.74	1.90
22202	DRNT	DURONTO EXPRESS	Puri	Sealdah	6720	4582	68.18	6672	3891	58.32	-9.87	35904	29647	82.57	35776	29114	81.38	-1.19
22203	DRNT	SC DURONTO EXP	Visakhapatnam	Secunderabad Jn	25502	19943	78.20	25573	17197	67.25	-10.96	97792	82707	84.57	97856	74602	76.24	-8.34
22204	DRNT	VSKP DURONTO EXP	Secunderabad Jn	Visakhapatnam	25769	20611	79.98	25767	18290	70.98	-9.00	98496	82057	83.31	98560	74807	75.90	-7.41
22205	DRNT	MDU DURONTO EXP	Chennai central	Madurai Jn	12420	7786	62.69	12420	5445	43.84	-18.85	47104	29564	62.76	47104	23239	49.34	-13.43
22206	DRNT	MAS DURONTO EXP	Madurai jn	Chennai Central	12420	5403	43.50	12285	3700	30.12	-13.38	47172	22623	47.96	46592	17625	37.83	-10.13
22209	DRNT	NDLS DURONTO EX	Mumbai Central	New Delhi	15328	13253	86.46	15762	12388	78.59	-7.87	61634	61814	100.29	63062	54827	86.94	-13.35
22210	DRNT	BCT DURONTO	New Delhi	Mumbai Central	14718	12917	87.76	15170	11836	78.02	-9.74	60714	61800	101.79	62010	62262	100.41	-1.38
22213	DRNT	SHM PNBE DURONT	Shalimar	Patna Jn	6440	6089	94.55	6440	5710	88.66	-5.89	26880	25296	94.11	26880	23789	88.50	-5.61
22214	DRNT	DURONTO EXPRESS	Patna Jn	Shalimar	6506	6038	92.81	6682	6045	90.47	-2.34	26880	26260	97.69	26688	26098	97.79	0.10

Annexure 2.2 b (Para 2.1.3.1)

Statement showing the comparison of occupancy in Shatabdi trains

Train No	Train Type	Originating Station of train	Destination Station of train	9.9.15-31.7.16			9.9.16-31.7.17			Increase (+)/Decrease (-) (in per cent)
				Berth potential	Actual passengers	Occupancy (%)	Berth potential	Actual passengers	Occupancy (%)	
12001	SHT	Habibganj	New Delhi	463644	441722	95.27	465075	391036	84.08	-11.19
12002	SHT	New Delhi	Habibganj	374980	482098	128.57	376223	435761	115.83	-12.74
12003	SHT	Lucknow NE	New Delhi	455897	427627	93.80	454650	411991	90.62	-3.18
12004	SHT	New Delhi	Lucknow NE	405600	423758	104.48	404430	423006	104.59	0.12
12005	SHT	New Delhi	Kalka	322462	273002	84.66	346864	254166	73.28	-11.39
12006	SHT	Kalka	New Delhi	546780	269931	49.37	584844	241374	41.27	-8.10
12007	SHT	Chennai Central	Mysuru Jn	326525	249283	76.34	350280	260273	74.30	-2.04
12008	SHT	Mysuru Jn	Chennai Central	329664	238740	72.42	349192	254503	72.88	0.46
12009	SHT	Mumbai Central	Ahmedabad Jn	364179	376251	103.31	358289	357545	99.79	-3.52
12010	SHT	Ahmedabad Jn	BCT	386946	389806	100.74	376288	376504	100.06	-0.68
12011	SHT	New Delhi	Kalka	323466	316623	97.88	329550	301418	91.46	-6.42
12012	SHT	Kalka	New Delhi	557454	297493	53.37	557811	272962	48.93	-4.43
12013	SHT	New Delhi	Amritsar Jn	412850	350265	84.84	419900	345026	82.17	-2.67
12014	SHT	Amritsar Jn	New Delhi	507480	341882	67.37	513825	327832	63.80	-3.57
12015	SHT	New Delhi	Ajmer Jn	348270	339428	97.46	339237	318265	93.82	-3.64
12016	SHT	Ajmer Jn	NDLS	418876	303908	72.55	449464	286268	63.69	-8.86
12017	SHT	New Delhi	Dehradun	298688	297751	99.69	311656	303784	97.47	-2.21
12018	SHT	Dehradun	New Delhi	361342	285941	79.13	361860	260758	72.06	-7.07
12019	SHT	Howraj Jn	Ranchi	186200	175478	94.24	185026	171639	92.76	-1.48
12020	SHT	Ranchi	Howrah Jn	231840	165242	71.27	230184	162083	70.41	-0.86
12025	SHT	Pune	Secunderabad Jn	215527	159829	74.16	214760	141458	65.87	-8.29
12026	SHT	Secunderabad Jn	Pune	210482	158601	75.35	210560	146013	69.35	-6.01
12027	SHT	Chennai Central	KSR Bengaluru	250380	228729	91.35	262080	232252	88.62	-2.73
12028	SHT	KSR Bengaluru	Chennai Central	250458	216377	86.39	262080	212183	80.96	-5.43
12029	SHT	New Delhi	Amritsar Jn	318665	302723	95.00	304224	284146	93.40	-1.60
12030	SHT	Amritsar Jn	New Delhi	396341	290689	73.34	383945	268615	69.96	-3.38
12031	SHT	New Delhi	Amritsar Jn	59919	45502	75.94	59428	44631	75.10	-0.84
12032	SHT	Amritsar Jn	New Delhi	60783	41976	69.06	60486	39839	65.86	-3.19
12033	SHT	Kanpur Central	New Delhi	246792	230006	93.20	259428	219001	84.42	-8.78
12034	SHT	New Delhi	Kanpur Central	246714	210674	85.39	259428	185140	71.36	-14.03
12035	SHT	Jaipur	Agra Fort	84991	47090	55.41	87048	44426	51.04	-4.37
12036	SHT	Agra Fort	Jaipur	79594	44373	55.75	81458	40583	49.82	-5.93
12037	SHT	New Delhi	Ludhiana Jn	150120	69256	46.13	161039	58740	36.48	-9.66
12038	SHT	Ludhiana Jn	New Delhi	153144	68802	44.93	164287	63407	38.60	-6.33
12041	SHT	Howraj Jn	New Jalpaiguri	167146	150078	89.79	178509	146976	82.34	-7.45
12042	SHT	New Jalpaiguru	Howrah Jn	186804	147290	78.85	199914	150548	75.31	-3.54
12043	SHT	New Delhi	Moga	56950	32410	56.91	62980	30943	49.13	-7.78
12044	SHT	Moga	New Delhi	88145	26064	29.57	97478	24841	25.48	-4.09
12045	SHT	New Delhi	Chandigarh	209976	130108	61.96	197386	107890	54.66	-7.30
12046	SHT	Chandigarh	New Delhi	210756	171290	81.27	210291	150863	71.74	-9.53
12243	SHT	Chennai Central	Coimbatore Jn	151242	116085	76.75	152100	105105	69.10	-7.65
12244	SHT	Coimbatore Jn	Chennai Central	151242	117109	77.43	152100	109831	72.21	-5.22
12277	SHT	Howraj Jn	Puri	290182	138560	47.75	328168	136753	41.67	-6.08
12278	SHT	Puri	Howrah Jn	245310	171045	69.73	277134	177107	63.91	-5.82
12847	SHT	Howraj Jn	Digha	153363	78364	51.10	152827	76372	49.97	-1.12
12848	SHT	Digha	Howrah Jn	153363	81746	53.30	152894	77095	50.42	-2.88

Annexure 2.3 (Para 2.1.3.4)- Comparison of passengers - Rail and Air in selected 13 sectors														
		Rail passengers								Air passengers				
S. no	Sector	Train No.	No. of passengers (Sep. 15 to July 16)		No. of passengers (Sep. 16 to July 17)		Total for AC 2 and AC 3(Sep. 15 to July 16)	Total for AC 2 and AC 3(Sep. 16 to July 17)	Increase (+) / Decrease (-) (Nos.)	Increase (+) / Decrease (-) (in per cent)	No. of passengers (Sep. 15 to July 16)	No. of passengers (Sep. 16 to July 17)	Increase (+) / Decrease (-) (Nos.)	Increase (+) / Decrease (-) (in per cent)
			2A	3A	2A	3A								
1	New Delhi - Chennai	12434	19706	60571	17571	58342	80277	75913	-4364	-5				
		12270	7597	27385	8237	28588	34982	36825	1843	5				
			27303	**87956**	**25808**	**86930**	**115259**	**112738**	**-2521**	**-2**	**980416**	**1061148**	**80732**	**8**
2	Chennai - New Delhi	12433	20709	59010	18052	56505	79719	74557	-5162	-6				
		12269	6067	21142	7639	26736	27209	34375	7166	26				
			26776	**80152**	**25691**	**83241**	**106928**	**108932**	**2004**	**2**	**980429**	**1063482**	**83053**	**8**
3	New Delhi – Thiruvananthapuram	12432	38182	112162	31503	97776	150344	129279	-21065	-14				
			38182	**112162**	**31503**	**97776**	**150344**	**129279**	**-21065**	**-14**	**115705**	**168415**	**52710**	**46**
4	Thiruvananthapuram - New Delhi	12431	42019	122891	35505	112459	164910	147964	-16946	-10				
			42019	**122891**	**35505**	**112459**	**164910**	**147964**	**-16946**	**-10**	**108411**	**185678**	**77267**	**71**
5	New Delhi – Hyderabad	12438	9525	32084	8684	28625	41609	37309	-4300	-10				
		12286	7668	24928	8079	26752	32596	34831	2235	7				
			17193	**57012**	**16763**	**55377**	**74205**	**72140**	**-2065**	**-3**	**985054**	**1088112**	**103058**	**10**
6	Hyderabad - New Delhi	12437	8144	27950	7248	25763	36094	33011	-3083	-9				
		12285	8868	28592	9244	29692	37460	38936	1476	4				
			17012	**56542**	**16492**	**55455**	**73554**	**71947**	**-1607**	**-2**	**985249**	**1067219**	**81970**	**8**
7	New Delhi – Kolkata	12302	76626	218736	67551	217925	295362	285476	-9886	-3				
		12306	13681	37524	12269	38181	51205	50450	-755	-1				
		12314	60090	329481	53563	328534	389571	382097	-7474	-2				
		12260	29440	144157	28617	132785	173597	161402	-12195	-7				
		12274	4310	28337	3848	27705	32647	31553	-1094	-3				
			184147	**758235**	**165848**	**745130**	**942382**	**910978**	**-31404**	**-3**	**1072148**	**1400462**	**328314**	**31**
8	Kolkata - New Delhi	12301	82276	224712	73626	229364	306988	302990	-3998	-1				
		12305	15440	39163	13898	39578	54603	53476	-1127	-2				
		12313	59542	325955	53570	329576	385497	383146	-2351	-1				
		12259	27140	138926	24652	128232	166066	152884	-13182	-8				
		12273	4303	27626	4090	27481	31929	31571	-358	-1				
			188701	**756382**	**169836**	**754231**	**945083**	**924067**	**-21016**	**-2**	**993328**	**1319021**	**325693**	**33**
9	New Delhi – Guwahati	12236	11451	49178	8893	48134	60629	57027	-3602	-6				
		12424	131646	403811	115056	420276	535457	535332	-125	0				
		12436	28001	113462	23214	113260	141463	136474	-4989	-4				
			171098	**566451**	**147163**	**581670**	**737549**	**728833**	**-8716**	**-1**	**442398**	**603508**	**161110**	**36**
10	Guwahati - New Delhi	12235	11250	48421	8650	48103	59671	56753	-2918	-5				
		12423	119695	401026	101539	414102	520721	515641	-5080	-1				
		12435	24068	102645	19588	109501	126713	129089	2376	2				
			155013	**552092**	**129777**	**571706**	**707105**	**701483**	**-5622**	**-1**	**424356**	**613601**	**189245**	**45**
11	New Delhi – Bangalore	22692	51133	148152	44005	167750	199285	211755	12470	6				
		22694	31567	104381	26073	104721	135948	130794	-5154	-4				
		12214	3297	19363	4636	26273	22660	30909	8249	36				
			85997	**271896**	**74714**	**298744**	**357893**	**373458**	**15565**	**4**	**1680897**	**1846712**	**165815**	**10**
12	Bangalore - New Delhi	22691	51651	157911	41117	163231	209562	204348	-5214	-2				
		22693	51386	133672	39921	132865	185058	172786	-12272	-7				
		12213	5695	29650	4334	27817	35345	32151	-3194	-9				
			108732	**321233**	**85372**	**323913**	**429965**	**409285**	**-20680**	**-5**	**1680454**	**1861949**	**181495**	**11**
13	New Delhi – Mumbai	12952	84670	260318	79661	275148	344988	354809	9821	3				
		12954	90608	277316	80609	278271	367924	358880	-9044	-2				
		22210	12917	61800	11836	62262	74717	74098	-619	-1				
			188195	**599434**	**172106**	**615681**	**787629**	**787787**	**158**	**0**	**2905364**	**3174442**	**269078**	**9**

Annexure 2.3 (Para 2.1.3.4)- Comparison of passengers - Rail and Air in selected 13 sectors														
		Rail passengers									Air passengers			
S. no	Sector	Train No.	No. of passengers (Sep. 15 to July 16)		No. of passengers (Sep. 16 to July 17)		Total for AC 2 and AC 3(Sep. 15 to July 16)	Total for AC 2 and AC 3(Sep. 16 to July 17)	Increase (+) / Decrease (-) (Nos.)	Increase (+) / Decrease (-) (in per cent)	No. of passengers (Sep. 15 to July 16)	No. of passengers (Sep. 16 to July 17)	Increase (+) / Decrease (-) (Nos.)	Increase (+) / Decrease (-) (in per cent)
			2A	3A	2A	3A								
14	Mumbai - New Delhi	12951	95365	282872	88677	297121	378237	385798	7561	2				
		12953	102050	301141	86266	299687	403191	385953	-17238	-4				
		22209	13253	61814	12388	54827	75067	67215	-7852	-10				
			210668	**645827**	**187331**	**651635**	**856495**	**838966**	**-17529**	**-2**	**2880430**	**3140280**	**259850**	**9**
15	New Delhi – Ranchi	12440	25098	59833	20288	60331	84931	80619	-4312	-5				
		12454	26795	58082	19599	61768	84877	81367	-3510	-4				
			51893	**117915**	**39887**	**122099**	**169808**	**161986**	**-7822**	**-5**	**205662**	**375389**	**169727**	**83**
16	Ranchi - New Delhi	12439	27554	60817	22597	61056	88371	83653	-4718	-5				
		12453	24507	56053	14769	55752	80560	70521	-10039	-12				
			52061	**116870**	**37366**	**116808**	**168931**	**154174**	**-14757**	**-9**	**188793**	**341308**	**152515**	**81**
17	New Delhi – Ahmedabad	12958	83404	259323	75932	267039	342727	342971	244	0				
			83404	**259323**	**75932**	**267039**	**342727**	**342971**	**244**	**0**	**724335**	**878513**	**154178**	**21**
18	Ahmedabad - New Delhi	12957	81334	252238	70376	256163	333572	326539	-7033	-2				
			81334	**252238**	**70376**	**256163**	**333572**	**326539**	**-7033**	**-2**	**727164**	**866251**	**139087**	**19**
19	New Delhi – Bhubaneshwar	22812	15704	110758	13651	99845	126462	113496	-12966	-10				
		22824	23709	148218	20386	135022	171927	155408	-16519	-10				
		12282	1769	13982	1662	12178	15751	13840	-1911	-12				
			41182	**272958**	**35699**	**247045**	**314140**	**282744**	**-31396**	**-10**	**331881**	**433720**	**101839**	**31**
20	Bhubaneshwar - New Delhi	22811	15473	112252	12698	98698	127725	111396	-16329	-13				
		22823	21568	146870	18471	130203	168438	148674	-19764	-12				
		12281	1569	11962	1448	11221	13531	12669	-862	-6				
			38610	**271084**	**32617**	**240122**	**309694**	**272739**	**-36955**	**-12**	**320542**	**419269**	**98727**	**31**
21	New Delhi – Goa	22414	10618	37601	9074	34167	48219	43241	-4978	-10				
			10618	**37601**	**9074**	**34167**	**48219**	**43241**	**-4978**	**-10**	**468738**	**606639**	**137901**	**29**
22	Goa - New Delhi	22413	14978	52180	13287	53741	67158	67028	-130	0				
			14978	**52180**	**13287**	**53741**	**67158**	**67028**	**-130**	**0**	**489545**	**609543**	**119998**	**25**
23	Mumbai – Kolkata	12261	29442	141929	26736	133958	171371	160694	-10677	-6				
			29442	**141929**	**26736**	**133958**	**171371**	**160694**	**-10677**	**-6**	**757088**	**811876**	**54788**	**7**
24	Kolkata – Mumbai	12262	27334	137636	27267	136616	164970	163883	-1087	-1				
			27334	**137636**	**27267**	**136616**	**164970**	**163883**	**-1087**	**-1**	**718891**	**789635**	**70744**	**10**
25	Bangalore – Kolkata	12246	12738	66440	12450	75168	79178	87618	8440	11				
			12738	**66440**	**12450**	**75168**	**79178**	**87618**	**8440**	**11**	**542487**	**721322**	**178835**	**33**
26	Kolkata – Bangalore	12245	13132	65233	12219	72968	78365	85187	6822	9				
			13132	**65233**	**12219**	**72968**	**78365**	**85187**	**6822**	**9**	**515163**	**699241**	**184078**	**36**

Annexure 2.4 (Para 2.1.5.1) - Statement showing the punctuality of selected premier trains (Para 2.4.1)						
Category	Train No.	From	To	No. of services during Feb. 2017	Delay days	Punctuality Percentage
Rajdhani	22812	New Delhi	Bhubaneswar	12	3	75%
Rajdhani	22824	New Delhi	Bhubaneswar	16	11	31%
Rajdhani	12302	New Delhi	Howrah	24	24	0%
Rajdhani	12314	New Delhi	Sealdah	28	28	0%
Rajdhani	12433	Chennai Central	Nizamuddin	8	8	0%
Rajdhani	12951	Mumbai Central	New Delhi	28	26	7%
Rajdhani	12424	New Delhi	Dibrugarh Town	28	26	7%
Rajdhani	12436	New Delhi	Dibrugarh Town	8	7	13%
Rajdhani	12432	Nizamuddin	Trivandrum Central	12	5	58%
Rajdhani	12434	Nizamuddin	Chennai Central	8	4	50%
Rajdhani	12438	Nizamuddin	Secunderabad Jn	4	0	100%
Rajdhani	12454	New Delhi	Ranchi	8	3	63%
Rajdhani	12440	New Delhi	Ranchi	8	5	38%
Rajdhani	12442	New Delhi	Bilaspur Jn	8	6	25%
Rajdhani	22692	Nizamuddin	KSR Bengaluru	16	16	0%
Rajdhani	22694	Nizamuddin	KSR Bengaluru	12	11	8%
Rajdhani	12958	New Delhi	Ahmedabad Jn	28	24	14%
Rajdhani	12952	New Delhi	Mumbai Central	28	17	39%
Rajdhani	12310	New Delhi	Rajendranagar T	27	19	30%
Duronto	12220	Secunderabad Jn	Lokmanyatilak T	8	4	50%
Duronto	12224	Ernakulam Jn	Lokmanyatilak T	8	3	63%
Duronto	12282	New Delhi	Bhubaneswar	4	3	25%
Duronto	22201	Sealdah	Puri	12	3	75%
Duronto	12260	New Delhi	Sealdah	16	16	0%
Duronto	12274	New Delhi	Howrah	8	8	0%
Duronto	12281	Bhubaneswar	New Delhi	4	4	0%
Duronto	12273	Howrah	New Delhi	8	8	0%
Duronto	12276	New Delhi	Allahabad Jn	12	10	17%
Duronto	12293	Lokmanyatilak T	Allahabad Jn	8	0	100%
Duronto	12239	Mumbai Central	Jaipur	8	5	38%
Duronto	12270	Nizamuddin	Chennai Central	8	7	13%
Duronto	12284	Nizamuddin	Ernakulam Jn	4	3	25%
Duronto	12219	Lokmanyatilak T	Secunderabad Jn	8	7	13%
Duronto	12286	Nizamuddin	Secunderabad Jn	8	8	0%
Duronto	12246	Yesvantpur Jn	Howrah	20	18	10%
Duronto	12261	C Shivaji Mah T	Howrah	16	15	6%
Duronto	12214	Delhi S Rohilla	Yesvantpur Jn	4	4	0%
Duronto	12245	Howrah	Yesvantpur Jn	20	19	5%
Duronto	12269	Mumbai Central	Ahmedabad Jn	28	2	93%
Duronto	12268	Ahmedabad Jn	Mumbai Central	28	12	57%
Duronto	22213	Shalimar	Patna Jn	12	8	33%
Shatabdi	12026	Secunderabad Jn	Pune	24	19	21%
Shatabdi	12277	Howrah	Puri	28	4	86%
Shatabdi	12042	New Jalpaiguri	Howrah	24	23	4%
Shatabdi	12020	Ranchi	Howrah	24	20	17%
Shatabdi	12033	Kanpur Central	New Delhi	22	22	0%
Shatabdi	12003	Lucknow NE	New Delhi	28	28	0%
Shatabdi	12034	New Delhi	Kanpur Central	22	3	86%
Shatabdi	12035	Jaipur	Agra Fort	22	3	86%
Shatabdi	12041	New Jalpaiguri	Howrah	24	24	0%
Shatabdi	12015	New Delhi	Ajmer Jn	28	14	50%
Shatabdi	12036	Agra Fort	Jaipur	24	11	54%

Annexure 2.4 (Para 2.1.5.1) - Statement showing the punctuality of selected premier trains (Para 2.4.1)						
Category	Train No.	From	To	No. of services during Feb. 2017	Delay days	Punctuality Percentage
Shatabdi	12008	Mysuru Jn	Chennai Central	24	17	29%
Shatabdi	12244	Coimbatore Jn	Chennai Central	24	19	21%
Shatabdi	12025	Pune	Secunderabad Jn	24	12	50%
Shatabdi	12019	Howrah	Ranchi	24	6	75%
Shatabdi	12278	Puri	Howrah	28	20	29%
Shatabdi	12027	Chennai Central	KSR Bengaluru	23	23	0%
Shatabdi	12007	Chennai Central	Mysuru Jn	24	24	0%
Shatabdi	12002	New Delhi	Bhopal Jn	28	28	0%
Shatabdi	12009	Mumbai Central	Ahmedabad Jn	24	5	79%
Shatabdi	12010	Ahmedabad Jn	Bhubaneswar	24	2	92%
Shatabdi	12004	New Delhi	Lucknow NE	27	20	26%

Annexure 2.5 a (Para 2.2.1) Sample Selection (Plots)				
S. no	**Zonal Railway**	**Division**	**Name of the stations selected**	**Number of Commercial plots**
1	SER	Kharagpur	Kolaghat	170
2	SER	Kharagpur	Andul	21
3	SER	Kharagpur	Panskura	19
4	SER	Kharagpur	Balasore	2
5	SER	Chakradharpur	Manoharpur	4
6	SER	Chakradharpur	Kuldia	1
7	ECoR	Khurda Road	Cuttack	153
8	ECoR	Khurda Road	Brahmapur	13
9	ECoR	Khurda Road	Daitari	1
10	ECoR	Khurda Road	Bhubaneswar	2
11	ECoR	Visakhapatnam	Visakhapatnam	5
12	ECoR	Sambalpur	Sambalpur	3
13	NER	Lucknow	Lucknow City	13
14	NER	Lucknow	Colonelganj	20
15	NER	Lucknow	Naugarh	11
16	NER	Lucknow	Basti	3
17	NER	Izzatnagar	Shahamatganj	18
18	NFR	Alipurduar	Fakiragram	1
19	NFR	Rangiya	New Bongaigaon	1
20	NFR	Rangiya	Jogighopa	4
21	NFR	Tinsukia	Sibsagar Town	3
22	NFR	Tinsukia	Jorhat Town	5
23	NR	Firozpur	Jammu	7
24	NR	Firozpur	Moga	1
25	NR	Delhi	Ghaziabad	1
26	NR	Ambala	Saharanpur	1
27	NR	Ambala	Chandigarh	1
28	SCR	Secunderabad	Mandamari	2
29	SCR	Secunderabad	Rechni Road	2
30	SCR	Vijayawada	Ravikampadu	1
31	SCR	Guntakal	Panyam	1
32	SCR	Guntakal	Betamcheria	1
	Total			**491**

Annexure-2.5 b (Para 2.2.1) Sample Selection (Parking contracts)				
S. no	**Zonal Railway**	**Division**	**Name of the stations**	**Number of contracts for parking etc.**
1	SER	Kharagpur	Kharagpur	1 Car Parking and 2 Cycle stand
2	SER	Kharagpur	Santragachi	1 Car parking
3	SER	Kharagpur	Midnapore	3 Cycle stand
4	SER	Chakradharpur	Tatanagar	2 Car Parking, Motor Cycle, Cycle Stand
5	SER	Chakradharpur	Rourkela	2 Car Parking, Motor Cycle, Cycle Stand
6	SER	Chakradharpur	Jharsuguda	1 Car Parking, Motor Cycle, Cycle Stand
7	NER	Lucknow	Gorakhpur	5
8	NER	Lucknow	Lucknow City	1
9	NER	Lucknow	Naugarh	1
10	NER	Lucknow	Basti	2
11	NFR	Katihar	Katihar	2
12	NFR	Katihar	New Jalpaiguri	1
13	NFR	Alipurduar	New Cooch Behar	1
14	NFR	Rangiya	New Bongaigaon	1
15	NFR	Rangiya	Jogighopa	1
16	SCR	Secunderabad	Secunderabad	4
17	SCR	Vijayawada	Vijayawada	10
18	SCR	Vijayawada	Eluru	5
19	SCR	Vijayawada	Nellore	5
20	SCR	Guntur	Guntur	5
21	CR	Mumbai	Kalyan	5
22	CR	Mumbai	Lokmanya Tilak Terminus	1
23	CR	Pune	Pune	4
24	CR	Solapur	Solapur	2
25	CR	Nagpur	Nagpur	6
26	ER	Howrah	Howrah	2
27	SR	Chennai	Chennai Central	3
28	NR	Firozpur	Jammu	1
29	NR	Firozpur	Moga	1
30	NR	Delhi	Ghaziabad	3
31	NR	Delhi	New Delhi	2
32	NR	Ambala	Saharanpur	3
33	NR	Ambala	Chandigarh	4
34	ECoR	Khurda Road	Cuttack	4
35	ECoR	Khurda Road	Brahmapur	3
36	ECoR	Khurda Road	Bhubaneswar	2
37	ECoR	Visakhapatnam	Visakhapatnam	5
38	ECoR	Sambalpur	Sambalpur	1
	Total			**108**

Annexure 2.6 (Para 2.2.4)	
Utilization of plots by licensee/plot holders	
Railway	**Audit observations**
SER	**Station-Kolaghat**
	(i) Plot No. 32 (area 197 sqm) allotted to Shri Madan Mohan Bera was being utilized by TusharKanti Jana as Chanachur factory and had permanent structure.
	(ii) Plot No.9 (area 372 sqm) which was originally allotted to Smt. Indar Devi Chopra had been rented to Jute Corporation of India and had permanent structure.
	(iii) Plot No.31 was originally allotted to Sri Haripada Maity and Kalipada Maity. Subsequently the plot was occupied by Sri Jitendranath Maity and sold to Shri Pravat Mondal at ₹ 1.95 Lakh on ₹ 50 non-judicial stamp paper in presence of witness. How the plot was transferred to Sri Jitendranath Maity was not available on record. The plot was being used as ceramic tiles and marble shop, stationery goods shop etc. by erecting permanent structure.
	(iv) Plot No. 67 was originally allotted to Sri BalaiDey. The plot was transferred to Sri Pravat Mondal by Power of Attorney on ₹ 50 non-judicial stamp paper through Notary executed by RiktaDey, PrabirDey, SubirDey and Baishakhi Chakraborty wife, sons and married daughter of Late Balai Dey.
	(v) Plot nos.1, 1A originally allotted to Shri Shridhar Chandra Dolui was transferred to his son-in-law Shri Ananta Kumar Nayak by deed of donation on ₹ 2200 non judicial stamp paper through registration in the state sub-registry office. The plot was presently being occupied by his grandson, Kaushik Nayak. The plots 1 & 1A is being utilized as Hardware shop, Hosiery factory and Wood stacking. In both the plots permanent structures has been erected.
	(vi) Plot no. 89 (area 849 sqm.) originally allotted to Shri Kishori Mohan Khan was being utilized by Ratan Lal Bothra and R. Bothra as Oil Mill and had permanent structure.
	(vii) None of the plots jointly inspected (at Kolaghat station) were properly demarcated and was being utilized unauthorized by persons other than original allottee.
SER	**Station-Panskura**
	(i) Plot No. 10B (S) (area 167 sqm.) originally allotted to Central Trading Co. was being used by Ram Krishna Ghorai. In compliance of the orders of Hon'ble High Court, Kolkata he was evicted in January 2017. Engineering department was asked to take over the plot but they refused to take over the same due to existence of pucca masonry structures on it leaving chances of unauthorized occupation. The plot was not fully vacated and was partly occupied unauthorized by one NimaiBhowmik who was running a flower shop. The plot had permanent structure.
	(ii) Plot no. 10 B (S) (area 948 sqm.) originally allotted to Smt. Sandhya Rani Dey was being utilized as Bakery (Raja Food Products) by Syed Imdad Ali and Kalpana Rani Jana. The plot had permanent structure.
	(iii) Plot number 3 B (S) (area 167 sqm.) originally allotted to D.A.Khan was being utilized as hotel, mobile shop, studio etc. by D.A.Khan, M.A.Khan and E.A.Khan. Plot had double storied building on it.
	(iv) Plot no. NIL(S) (area 255 sqm) originally allotted to W.A.Khan was being utilized by his son and had two storied building for residence and shops on the ground floor.
	(v) Plot no. 5B (S) (area 167 sqm) originally allotted to Basudev Mahapatra was being utilized by an outsider as residence and seed shop having permanent structure.
	(vi) None of the plots were properly demarcated. All plots were being utilized unauthorized by persons other than original allottee except in case of plot no. 3B (S) where the original allottee was running business with partners.
SER	**Station-Andul**
	(i) Plot No. 25 (S) measuring 636.50 sqm was allotted to National Tar Products. The company had unauthorized encroached an additional area of 1,105.54 sqm and requested (2008) the Railway Administration for regularization of the same. The Railway Administration had not taken any action to vacate the encroached land.
	(ii) Plot no. 1(S) (area 167 sqm) originally allotted to Samar Ghosh, Amar Ghosh and others was unauthorized occupied and utilized by others as Stationery, Sweet, Snacks, Tea , Gas Oven repairing shop and saloon.
	(iii) Plot nos. 2 and 3 (area 334 sqm.) originally allotted to Dulal Chandra Ghosh & Sons were occupied by Mrityunjoy Ghosh and eight others. The plots were used as Cycle/ Motor cycle stand and had permanent structure.
	(iv) Plot no. 4(S) (area 167 sqm) originally allotted to Mrityunjoy Ghosh was merged with plot nos. 2 and 3 without permission of the railway and was being used as cycle stand by Mrityunjoy Ghosh and eight others.
	(v) Plot no. 1(C) (area 465 sqm) allotted to Abdul Hakim was used as saw mill, storing of fire wood & timber, manufacturing of furniture. The plot had permanent structure.
	(vi) All the five plots jointly inspected were not properly demarcated. Out of five, three were unauthorized occupied.
SER	**Station-Balasore**
	(i) Plot No. NIL (area 929 sqm) and 6/1 (area 168 sqm) was allotted to N.K.Das and M/s M.G.P.Company. Both the plots were occupied by Ashok Kumar Agarwal and were being used as salt godown and had permanent structure.
	(ii) Other commercial plots, lying in between plots NIL and 6/1, which were handed over to Engineering Department earlier after vacation by plot holders were under unauthorized occupation and being utilized for residential purpose, club etc.

Annexure 2.6 (Para 2.2.4)	
Utilization of plots by licensee/plot holders	
Railway	**Audit observations**
SER	**Station-Manoharpur**
	(i) Plot Nos. 1A, 2A & 3A (area 20,955 sqm) were allotted to SAIL (formerly known as IISCO) for stacking of iron ore but loading was stopped from 2016.
	(ii) Plots were not demarcated and had no structure on it.
SER	**Station-Kuldiha**
	Fifty five plots (measuring 13,049 sqm) were allotted to Sri B.C. Dogra for stacking and dispatch of iron ore by trains. An additional area of 80 sqm was occupied by plot holder.
SER	**General observations**
	(i) Plots were allotted for stacking/storing of rail borne goods like jute, fire wood, paddy and other goods. After phasing out of the 'piece meal' and 'small' booking of goods in wagons, there was no scope to use the plots for the purposes these plots were originally allotted. Also, information about the present utilization of all the plots was not available with SMR.
	(ii) Railway had never made any survey about the uses of the plots except for 18 Plots out of 170 Plots under Kolaghat station in 2014. In respect of these 18 plots, railways found that these were being used for residence, shops including wine shops, satta corner, electric goods, auto standetc., occupied by outsiders and divided the plots in pieces among them etc. Audit conducted joint inspection[1]along with railway officials of Commercial Department and observed that
	(a) Presently the plots were being used for various other purposes like Hardware shop, Hosiery factory, Grill factory, Ceramic tiles and Marble shop, godown, Chanachur factory, Oil mill, salt godown, rented to Jute Corporation of India, Burning Ghat, Political Party office and miscellaneous other purposes.
	(b) Railway plots were given on temporary license basis. No plot holder was permitted to erect any permanent structure except with specific approval of the Railway Administration. It was, however, noticed that the plot holders had occupied the plots unauthorized and erected permanent structures. On plot number 3B(S), Nil (S) residential double storied buildings with shops have been constructed and at Kolaghat station double storied buildings have been constructed on plot number 18 and 25 made of RCC (reinforced cement concrete) column, brick and cement wall etc. Ceiling and top ceiling (in case of double story) were covered with tiles and asbestos etc. to give resemblance of a temporary structure.
	(c) Plots were illegally transferred from original allottee to sub-allottee and even by sub-allottees to other occupants through transferring on sale deed between the parties on low value non-judicial stamp paper in presence of witness and deed of donation and registered in the state government sub-registry office.
ECoR	**Station-Cuttack**
	(i) A plot of land measuring 10,876 sqm licensed to HPCL for the purpose of oil installations was not vacated though the depot was closed since February 2016. The structures were not dismantled so far.
	(ii) FCI siding adjacent to the Malgodown area closed long back was lying idle. The details of area occupied by the siding, date from which it is not in use and the proposal for commercial utilization of the vacant area by the Railway, if any, were not available on records.
	(iii) All the plots at Malgodown area were unauthorized occupied. Records on utilization, assessment and realization of license fee were not available.
ECoR	**Station-Brahmapur**
	One Oil Installation of BPCL with an area of 6253 sqm was in operation since pre-independence on license fee at the rate fixed by Railway. The plot was used in connection with Railway working, i.e., supply of petroleum products through tank wagons and unloading in the depot. Since POL traffic was stopped from October 2014, the Railway served notice to BPCL authorities on February 2015 to stop operation, dismantle the assets and surrender the land due to safety reasons. However, BPCL remitted license fee for 2016-17 for ₹ 6.91 lakh to Railway but Zonal Headquarters instructed the Divisional office not to receive cheque and evict BPCL from Brahmapur with application of Public Premises (Eviction of Unauthorized Occupants) Act 1971. The Railway terminated the license of BPCL (July 2016) and served seven day's notice (August 2016). The land under BPCL was not vacated. The Railway lost an occupation fee of ₹ 14.52 lakh during 2016-17 and 2017-18.
NFR	(i) One plot (350 sqm) was utilized by two parties at Fakiragram.
	(ii) Another Plot (area 5,320.84 sqm) at Jogighopa was being utilized by 14 parties for conducting business of transporting bamboo chips and coal by virtue of temporary stacking on orders issued from time to time by respective Divisional offices. No agreement was executed with any of them.
	(iii) Plot holders at two selected stations (SibsagarTownandJorhat Town) were not offering traffic to railways and using the plots for other business. They have stopped payment of license fee since 2014.
SCR	One plot of area 7,305 sqm at Rechni Road was licensed to M/s Naresh Kumar Company Pvt. Ltd. but the plot was being used by M/s SCCL with permanent construction of Lorry Weigh Bridge and office structure. No action has been taken by Railway Administration against the plot holder.

Annexure 2.7 (Para 2.2.7)								
Sub-letting of plots by the original licensees								
Name of Station	No. of Plot Holders	Occupied by Original allottee	Transferred in the name of present occupant	Occupied by legal heir on power of attorney	Occupied by Other than legal heir on power of attorney	Un-authorised occupied by heir of original allottee	Un-authorised occupied by outsiders	Others (viz no record available or not allotted)
SER	217	65	1	2	22	30	65	32
NER	66	28	0	7	0	4	22	5
ECoR	177	33	0	0	0	0	0	144
SCR	7	3	0	0	0	0	0	4
Total	**467**	**129**	**1**	**9**	**22**	**34**	**87**	**185**
Percentage to total		**27.62**	**0.21**	**1.93**	**4.71**	**7.28**	**18.63**	**39.61**

Annexure 2.8 (2.2.6.1)

Fixation and realization of license fee

Railway	Name of the station	Present occupant of commercial plots	Area of the plot (In sqm.)	Purpose for which plot was being utilised	Annual Licence fee fixed by Railway (as on April,2016) (in ₹)	License fee paid (Yes/ No)	Annual licence fee as assessed by Audit as per Railway Board's instructions/guidelines of 2005 (in ₹)	Short realisation (in percentage)
SER	Andul (ADL)	National Tar Product	(i) 637	Coal tar	(i)109356	No	(i)234334	114
			(ii)1106 unauthorisedly occupied		(ii) Nil		(ii) 407016	
		Janab Abdul Hakim	464	Timber	78114	No	171010	119
	Kolaghat (KIG)	Sk. Rejjak and ChittaranjanGoswami	372	Residence and Godown of Steel	10299	No	249231	2320
		BhabhaniRanjanChakraborty	372	Iron rod and corrugated sheet	10299	No	249231	2320
		TusharKanti Jana	197	Food product (Chanachur)	5472	No	132399	2320
		NischalKankaria	191	Garment manufacturing	5310	No	128475	2319
		Nirmalendu Bhunia	162	Saw mill	4506	No	109032	2320
		Pravat Mondal	254	Marble Godown	7029	Yes	170098	2320
		BarindraNathSamanta	492	Marble shop	13647	No	392536	2776
	Panskura (PKU)	SubodhPramanik	167	Fruit whole sale business	5182	Yes	249596	4717
		Four sons of W.A.Khan	255	Two storied building	7769	Yes	381381	4809
		The Central Trading Co.	929	Petrol pump	25900	Yes	1386811	5254
		The Central Trading Co.	899	Petrol pump	23312	Yes	1341878	5656
		Syed Emdad Ali and Kalpana Rani Jana	948	Raja Food product (Bakery)	25900	Yes	1414577	5362
NFR	SRTN	ONGC	10845.57	Petroleum product	631646	Yes	618838	14
	JTTN	IOCL	1546.37	Petroleum product	Nil	No	48649	100
		IOCL	1081.29	Petroleum product	Nil	No	144463	100
		RAI BAHADUR CHUNI LAL	2082.63	Petroleum product	79777	Yes	79777	0
		B.L.PODDAR	1393.54	Ballast Quarry	80562	Yes	80562	0

Annexure 2.9 (Para 2.2.7)	
Licensing of land for Cycle/Motor Cycle/Scooter/Car parking	
Zonal Railway	**Audit observations/findings**
SER	At Kharagpur (North side) the licensee Magan Pandey had stopped payment for cycle stand (1,402 sqm) since August 1983 and filed court case (in 1983) against eviction notice issued by the Railway Administration. Though the plot was evicted in August 2013 after the Court's order Railway Administration failed to recover outstanding license fee amounting to ₹0.84 crore pertaining to August 1983 to August 2013.
	After expiry of contractual period for cycle stand at Midnapore-I (456.25 sqm) in May 2009, licensee was served termination notice in July 2013. The licensee filed Court case in September 2013 against the termination notice. Thereafter, the licensee was served termination notices on expiry of two remaining contracts of Midnapore-II (225 sqm) and Midnapore-III (610 sqm) against which the licensee once again filed Court case. However, the licensee paid the license fee which was accepted by the Railway Administration. SMR was unaware of the area of the plot of Midnapore cycle stand handed over to the licensee for running the cycle stands. It was noticed that the licensee unauthorized occupied additional two plots of area 100 sqm (approx.) each case.
	At Tatanagar M/s Sahakar Global Ltd. was awarded the contract for cycle stand and car parking (9,848.96 sqm) from October 2015 to January 2018. The firm stopped the working from July 2016. Thereafter, the Railway Administration run it departmentally till July 2017. Railway Administration awarded a new contract (July 2017) to M/s Dream Homes Infrastructure without executing the agreement till joint inspection conducted in August 2017. Also, no record on deployment of number of staff and revenue collected were made available to audit.
	At Rourkela out of 4,930 sqm of parking area, man power was not deployed for collection of parking charges in respect of 2,500 sqm. Six Group 'C' and six Group 'D' staff besides one Supervisor were engaged in manning only cycle and scooter stand while the car parking stand remained unmanned. It was observed that the earnings from stand/parking was only ₹ 1.66 lakh per month whereas the expenditure on staff deployed was ₹ 5 lakh per month as assessed in audit.
ECoR	Parking area (2,000 sqm) was lying vacant at Bhubaneswar station. Public and private vehicles were parked without any revenue to the Railway Administration. Railway Administration had no plan for garner revenue from the parking plot.
	At Brahmapur capacity of the parking plot (1,324 sqm) was 114 cycle and 239 motor cycle/scooter at any time of the day (24 hours). The parking fee is charged on 12 hours parking time basis. The Railway Administration fixed the reserved price based on 57 cycle and 120 motor cycle/scooter (i.e half of the capacity) in 12 hours instead of 114 and 239. As such reserve price was calculated less as should have been. License fee ₹ 25.16 lakh was fixed and collected for the period from 2013-14 to 2016-17 instead of₹31.76 lakh as assessed by audit resulting in short realization of ₹6.60 lakh.
	At Visakhapatnam for Cycle and Car parking (5,673.5 sqm) annual increase of ten percent over the previous year's license fee of ₹ 50.01 lakh on1.4.2016 was not done at the time of realization of license fee resulted in short realization of ₹ 5 lakh.
	In another parking plot (1844 sqm) annual increase of ten percent over the previous year's license fee of ₹16.61 lakh on 1.4.2015 at the time of realization of license fee was not done resulted in short realization of ₹1.66 lakh. Similar increase was not done from 1.4.2016 resulting in short realization of ₹ 1.8 lakh.
	Similarly in other parking plot (1,640 sqm) annual increase of ten percent was not done over the previous year's license fee of ₹ 4.79 lakh on 1.4.2016 resulting short realization of ₹ 0.47 lakh.
ER	At Howrah Station, the period of licensing of Car parking Stand I and Stand II expired on 7-10-2017 and 17-7-2017 respectively, the licensee has deposited the license fee beyond the period of contract. Documents regarding extension of contract were not found on record. A tender has been floated for both the taxi stands with date of opening on 23.08.2017.
NER	At Gorakhpur contracts were awarded for two cycle stands. Contractor did not deposit license fee from September 2015 to June 2016. He left the work in June 2016 with the total outstanding license fee of ₹69.33 lakh. Railway Administration adjusted ₹51.99 lakh from security deposit and performance guarantee. A sum of ₹17.33 lakh was still recoverable from the contractor.
NFR	At Katihar, after expiry of agreement, the contractor was allowed to run the business on quotation basis for a period of one year after a gap of three months. A sum of Rs. 1.67 lakh was outstanding against him. Further, for two parking plots having area of 1,318.5 sqm and 2,200 sqm, there was no agreement in force for collection of parking charges for two and three months respectively in 2015.Railway sustained a loss of ₹ 1.81 Lakh during that period.
	At New Cooch Behar, after expiry of three years agreement in May 2016, the contractor was allowed to run business for nine months on quotation basis. Fresh agreement was executed with him in February 2017. An amount of ₹4.36 lakh was, however, outstanding against him for the earlier period of contracts.
	At Jogighopa, no agreement was in force in different spells for a total of 27 months during the period from September 2015 to November 2017 for a plot of 7,500 Sqm involving loss of earning to the tune of ₹14.13 lakh.
CR	At Chatrapati Shivaji Maharaj Terminus (CSMT), Engineering Department of Mumbai Division had completed the work of development of parking area beside Platform No. 18 at CSMT station on P D'mello Road side entry in March 2012 by incurring expenditure of ₹ 56.30 lakh. The area was not allotted on Pay and Park basis by Railway Administration. It was noticed that huge available parking area was used by passengers and private taxis for parking their vehicles without making any payment. As the CSMT is a A1 class station and has potential for getting high rates for Pay and Park plots, the Railway Administration lost revenue of `2.44 crore due to non-allotment of parking contract during April 2012 to June 2017.
	At Kurla, contract for provision of Pay and Park facility was awarded in July 2013 to Sushila Trading Corporation at ₹19 lakh per annum for a period of three years. The contractor made advance payment of three months' license fee of ₹4.75 lakh. As the Railway Administration could not provide the leveled parking space to the contractor, the pay and park facility could not be commenced on this land. The Pay and Park plot at Kurla is still lying vacant. Railway Administration lost revenue of ₹74.42 lakh from August 2013 to June 2017 due to not providing the land properly leveled for parking of vehicles.
	At Ghatkopar, contract for provision of Pay and Park facility was awarded to Sani Consultancy Pvt. Ltd. at Ghatkopar stations at ₹`21.67 lakh per annum for a period of three years. The contractor made advance payment of three months' license fee amounting to `5.41 lakh. However, the Railway Administration failed to provide proper entry and exit gates at Ghatkopar station to the contractor. As a result, the pay and park facility could not be commenced in these plots.Railway Administration sustained a loss of revenue of ₹ 48.75 lakh from August 2013 to October 2015 as assessed in audit.

Annexure 2.10 (Para 2.2.9)								
Un-authorised occupation of Commercial Plots								
Zonal Railway	**Station**	**Division**	**Total number of plots**	**Area of the plots (in sqm)**	**Number of plots under encroachment**	**Area under encroachment (in sqm)**	**Percentage of land under unauthorised occupation/ encroachment**	**Purpose for which plots were unauthorized used**
SER	ADL,KIG,PKU,BLS	KGP	212	55,603	119	31,173	56	Factories, shops, Godowns etc.
ECoR	CTC	KUR	144	42,523	144	42,523	100	Not available
NER	NUH, CLJ	LJN	32	19,337	28	17,479	90	Not available
NFR	SRTN	TSK	1*	10,845.58	NA	3,318.42	30.59	Petroleum product
SCR	RECH	SC	2	14,305	1	7305	51	Lorry weigh bridge
NR	No unauthorised occupation of commercial plot in NR							
CR	No commercial plot in CR							
** A part of licensed Plot No. L/SRTN/2160 was unathorisedly occupied by outsider.*								

Annexure 2.11 (Para 2.2.10)				
Commercial plots under litigations				
Zonal Railway	**Division**	**Station**	**Number of plots involved**	**Audit observations/findings**
SER	Kharagpur	Andul	21	Railway Administration was permanently restrained from enhancement of license fee for the commercial plots by court (1969).
				Since 1997 the plot holders of Andul station did not pay licence fee.
				After enhancement of licence fee (February 2006) the plot holders again filed case against the railway in court and Civil Judge (Jr. Division), Howrah observed that Railway appeared and filed their written statement without contesting the suit. As such the suit proceeded ex parte against Railway
				Court ordered (April 2016) that the railway is permanently restrained by a decree of permanent injunction from giving any effects to the notices dated 28.02.2006 issued in the names of different plaintiffs.
				Railway Administration never filed any petition at higher court against the lower court's order of permanent injunction.
				Outstanding licence fee at the end of March 2017, at old rate, was ₹ 1.27 crore.
		Balasore	2	Plot No. NIL and 6/1 were allotted to N.K.Das and M/s M.G.P.Company. Both the plots were occupied by Ashok Kumar Agarwal unauthorisedly and were being used as salt godown by erecting permanent structure and paying license fee.
				Railway Administration issued demand notice (November, 2013) for payment of license fee at enhanced rate from April 2011 to March 2014.
				The plot holders refused to pay the enhanced licence fee on the plea that the Railway Administration fixed the licence fee at higher rate of land value compared to the value of land in the area.
				The parties filed writ petition (2014) in High Court, Cuttack. Hon'ble Court instructed to allow the petitioner to operate the premises. The case has not yet been finalised.
		Midnapore	3	After expiry of the contract period for three cycle stands, the licensee was served notice (July 2013) to vacate the plots. The party filed case (September 2013) in the High Court, Calcutta.
				The court instructed (September 2016) railways to take possession of the plots but before that a surveyor shall take the measurement of the plots in presence of both the parties and prepare a sketch.
				Survey was awaited.
	Chakradharpur	Kuldiha	1	Commercial plots measuring 13049.16 sqm were allotted to Shri B.C. Dogra, for the purpose of stacking of iron ore for despatch by Railways.
				In May 2004 Divisional Office CKP issued termination notice to the plot holder due to offering insufficient traffic to the Railways. The plot holder had paid licence fee upto 2003.
				The plot holder filed Writ petition (in 2004) before the High Court, Cuttack and obtained stay order against Railway's vacation notice.
				The counter Affidavit to the writ petition and misc. case was filed in March 2005 but the case has not yet been listed in the Hon'ble court.
				The case was still pending and the plot holder is utilizing the plot without paying any license fee.
		Manoharpur	4	M/s Biri Trading Company was allotted four commercial plots in 1962 and 1975 for stacking timbers for despatching the same by Railways.
				In July 2009 Divisional office, CKP issued termination notice to the plot holder due to non-offering of traffic to the Railways.
				The Company filed Title Suit (in 2010) in the Court of the Munsif at Chaibasa and the case was still pending as on 31.3.2017.
ECoR	Khurda Road	Cuttack	144	144 plots on Railway land was licensed to the traders in Malgodown area in Cuttack since 1925 to1985.
				Railways issued notice to the licensees in January,2002 for payment of license fees with arrear for the period 01.04.1986 to 31.03.2002 in terms of Railway Board's order dated 29.8.1995.
				Eviction notice was issued to the licensees due to failure to make payment of licence fees with arrears.
				Estate officer/KUR also directed the licensees to pay license fee along with interest thereon for period 01.04.1986 to 31.03.2002.
				Challenging the order of Estate officer, the licensees preferred a writ petition before Hon'ble Court.
				High Court, Cuttack issued an interim stay on the Railway's eviction notices and directed to maintain status quo until further orders.
NER	Izzatnagar	Shahmatganj	18	Commercial plots had been allotted to different allottees prior to 1985 who did not pay outstanding license fees and renew the contract agreements in 2005.
				Again in 2011 and 2012, NER administration issued notices to all allottees to deposit the outstanding license fees and to renew the contract agreement.
				In December, 2013 notice was issued to allottees to clear their outstanding dues and vacate the land.
				Railways filed cases against the defaulting plot holders in the Court of the Estate officer.
				Eight hearings had taken place during the period December 2013 to November 2015.
SCR	Secunderabad	Secunderabad	1	There was dispute in the area of land made available towards parking space to the contractor.
				Based on the representation of the contractor, the area was re-measured and correct area arrived at.
				The applicant claimed for refixation of licence fee from the date of allotment, which was not agreed to by the Railways.
				The contractor sought arbitration and then filed case in the Hon'ble High court of Andhra Pradesh on account of delay in arbitration proceedings.
				The case is under listing.

Annexure 2.12 (Para 2.6)				
Statement showing non-realization of Way Leave (WL) charges from parties/firms				
Sl. No.	Zonal Railway	Name of the Divisions	Total number of parties/ firms who were granted way leave facility	Total outstanding amount as on 31 March 2017 (₹ in lakh)
1	CR	Mumbai	34	44.18
		Bhusawal	374	51.4
		Nagpur	26	253.36
		Pune	63	306.04
2	NCR	Allahabad	41	1005
		Jhansi	68	177
		Agra	10	109
3	ER	Howrah	2	103.52
		Asansol	41	5.77
4	SECR	Nagpur	87	110.99
5	NR	Lucknow	179	2380.6
		Delhi	28	1422.18
6	NER	Gorakhpur	1	550.82
Total	**6**	**13**	**954**	**6519.86**
				Say ₹ 65.20 crore

Annexure 2.13 (Para 2.7)

Statement showing Zonal Railway wise position of number of coaches fitted with LED destination boards

Zonal Railway	Railway Board's sanction for 500 coaches (sanction accorded in September 2008)	Railway Board's sanction for 5,000 coaches (sanction accorded in August 2009)	Railway Board's sanction for 10,000 coaches (sanction accorded in April 2010)	Total No. of coaches to be fitted with LED boards as per RB's sanction/allotment (col. 2+col. 3+col. 4)	No. of coaches fitted with LED destination boards in Zonal Railways	No. of coaches received from Coach Production Units from 2009-10	No. of coaches fitted with LED destination boards received from Coach Production Units	Total no. of coaches in Zonal Railways fitted with LED destination boards (col. 6 + col.7)	Rate at which the LED boards procured and fitted in Zonal Railways	Rate at which the LED boards procured and fitted in Production Units	Expenditure incurred on LED boards fitted in the Zonal Railways (col.8*col.9)	Exp incurred on LED boards in fitted in the Production Units (col.7*col.10)	No. of LED destination boards fitted in coaches not functional in Zonal Railways	Expenditure incurred on non functional LED Boards	Reasons for non-functioning of LED destinaion boards
1	*2*	*3*	*4*	*5*	*6*	*7*	*7 A*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*
CR	0	500	800	1300	201			201	125000		25125000	0	0	0	The LED boards were functional within warranty but no AMC was provided. The depot did not have expertise in its maintenance. Sr. DME (Cog), Mumbai stated that remote control units were not received from PUs and therefore the LED destination Boards were not in working conditions.
					146			146	104800		15300800	0	42	4401600	
					347			347			40425800	0	42	4401600	
ER	100	500	1000	1600	223			223	123583		27559009	0	152	18784616	Warranty period for maintenance of LED destination boards had expired and the Original Equipment Manufacturer with whom the maintenance work was entrusted did not respond to the work. Also 16 LED boards were not functional due to mechanical defect.
				0	100			100	109340		10934000	0	0	0	
				0	159			159	126113		20051967	0	159	20051967	
					482			482			58544976	0	311	38836583	
ECR	0	150	700	850	0	1213	21	21	125000		2625000	0	21	2625000	Coaches were received from BEML fitted with LED destination boards without remote unit
ECoR	0	250	400	650	0			0	0		0	0	0	0	
NCR	0	150	200	350	150			150	109784		16467600	0	150	16467600	Master unit defective, display not working and power supply unit defective
NER	0	250	400	650	400			400	106240		42496192	0	400	42496192	Coaches fitted with LED boards have not been attached to nominated rakes. No AMC and technical support available
NFR	100	250	400	750	750			750	127581		95685750	0	750	95685750	Non-maintenance by the Authorities
NR	0	500	1200	1700	437			437	125000		54625000	0	389	48625000	Defective/No technical expertise available
NWR								130	108200		14066000	0	328	35489600	Electrical faults encountered during service
								75	107625		8071875	0	10	1076250	
								74	77723		5751502	0	0	0	
								150	109469		16420350	0	48	5254512	
								245	107364		26304180	0	556	59694384	
	100	200	400	700	674	876		674			70613907	0	942	101514746	
SCR	100	400	850	1350	943	1599	0	943	125000		117875000	0	866	108250000	No AMC/spares available
SER	0	500	800	1300	322	1158	0	92	125000		11500000	0	92	11500000	Became non-functional after POH and consequent disintegartion of rakes. Fuses and MCBs were dislocated bt electric department during POH. Remote control units were kept at the base coaching depot.
								230	123000		28290000	0	230	28290000	
								322			39790000	0	322	39790000	
SECR	0	200	250	450	200	0	30	230	125000		28750000	0	230	28750000	Non execttion of AMC after expiry of initial contract and unsatisfactory performance of AMC contractor during initial contract period. Out of 30 BEML coaches, 11 coaches were received without remote control units. All LED destination boards fitted in 30 coaches were non functional
SR	100	400	1000	1500	175	2217	0	175	125000		21875000	5460972	175	27335972	No execution of AMC after expiry of intial contract and non updation of data base
SWR	0	200	550	750	544			544	125000		68000000	0	128	16000000	Non-functional due to failure of power supply ,display related problems,defective master card,Radio modem design faults, non-confirmity with RDSO specifications.
WR	0	400	850	1250	885	0	0	885	125000		110625000	0	367	45875000	Faulty power supply box, wiring problems and defects in Master Display Boards, problems in PCB and moisture in display boards
WCR	0	150	200	350	0		39	39	125000		4875000	0	39	4875000	Non-updation of data base
Total	**500**	**5000**	**10000**	**15500**	**6309**		**90**	**6399**			**982648908**	**5460972**	**5132**	**621528443**	

Annexure 2.14 (Para 2.13)								
Statement showing loss of revenue due to non imposition of Engine Hire Charges beyond permissible free time in SGTPS Siding/Birsinghpur								
Year	**No of rakes unloaded during the year in the unloading point**	**No of rakes involved where detention exceeded permissible free time (5 hours)**	**Percentage of rakes where detention exceeded permissible free time**	**Total hours of detention beyond permissible free time**	**Total No of engines involved**	**Amount of Engine Hire Charges recoverable (**)**	**Amount of Service tax accrued**	**Remarks**
2009	558	167	29.93	450	334	6957000	-	
2010	622	275	44.21	635	550	9890720	-	
2011	653	307	47.01	906	614	14846880	-	
2012	698	408	58.45	1339	816	23977800	226209	Service tax introduced from October 2012 which also includes Education cess 2% and higher edu cess 1% vide Railway Board's RC No. 29 of 2012 dated 28-9-2012 AND revised from time to time
2013	707	571	80.76	2101	1142	39953080	1481459	
2014	670	636	94.93	2637	1272	58825840	2181262	
2015	590	506	85.76	2247	1012	55354120	2164421	
2016	620	494	79.68	1948	988	54434660	2409312	
2017(*)	164	120	73.17	319	240	9244620	416008	
Total	**5282**	**3484**	**65.96**	**12582**	**6968**	**273484720**	**8878671**	
Grand total							**282363391**	
28.23 Crore								

(*) For the year 2017 data is upto March 17

(**) Engine Hire charges in Col 7 above have been calculated on the basis of detail date wise detention of rakes from the time "Placement" to "Release" in the siding minus unloading time of five hour for BOXN wagons / two hours for BOBRN (Hopper) wagons as prescribed in Rule (K-2 Para 6). Detention in Engine Hours so arrived at have been multiplied by No of engines used (2 engines in most of cases) and then multiplied by "All India Engine Hour Cost (AIEHC) for recovery of siding and shunting charges" as ciculated from time to time by the Railway Board in their Rates Circulars.

Annexure 4.1 (Para 4.1)

As per para 26.2.1 of the Agreement with the Company, an amount of ₹ 2228.63 crore is to be paid by Railways to the company towards maintenance, on completion of supply of diesel locomotives at prescribed rate of maintenance fee as follows:

Number of locomotives to be maintained for		Cost of one locomotive (₹ in crore)	Total Percentage of maintenance cost for	Total maintenance cost to be paid by Railway to company (₹ in crore)
Nine years	For first 250	14.65	47.25 [1]	1730.53
Four years	Next 250	14.65	13.6[2]	498.1
	Beyond 500	There is no specific clause for maintenance of remaining 500 out of 1000 locomotives to be supplied by the Company. The supply of 501st locomotives onwards would start from the seventh year onwards while the first maintenance depot for maintenance of these locomotives would be transferred in the tenth year. Similarly, a number of locomotives which would be received under the lot of 251 to 500 would be without maintenance cover even before transfer of first maintenance depot to Indian Railways. The maintenance of these locomotives by the Indian Railways would have to be obtained through the company as per agreement, the cost implications for which are likely to be significant, but not quantified in the contract agreement.		
Total				**2228.63**

[1] Total percentage of maintenance cost of 1 to 250 locomotives for nine years = (3.25%*3 years)+ (6.25%*1 years) + (3.25%*3 years) + (18.25%*1 years) + (3.25%*1 years) = 47.25 %

[2] Total percentage of maintenance cost of 251 to 500 locomotives for four years = {(3.25%*3 years) + (6.25%*1 years)}*85%= 16*85% = -13.6%

Annexure 5.1 (Para 5.1) - Status of MTRC projects								
S. no	**Group**	**Zonal Railway**	**Name of the section where MTRC Project implemented**	**Route KM**	**Year of inclusion in Works Programme**	**Status as on 31-03-2017**	**Status of the project**	**Audit findings**
1	New Delhi-Ambala-Ludhiana-Jammu Tawi	NR	New Delhi-Ambala-Ludhiana (including New Delhi-Palwal section and Delhi area)	372	2000-01	Completed	Completed	The work is physically completed, financial closing pending. The project/work was commissioned in August 2013 and handed over to open line in November 2016. The system was not seen to be working over Palwal-Ludhiana as seen in Audit in July 2017
2		NR	Ludhiana-Pathankot-JammuTawi-Amritsar	456	1999-00	Work in Progress	Not in operation	The estimate was sanctioned in 1999-2000. The work is yet to be completed. As of January 2017, physically progress was 80 per cent financial progress was 74 per cent. Out of 63 nos, 49 nos. BTS commissioned. For balance 14 new sites, towers at 08 locations erected & is in progress at 06 locations.
3	New Delhi-Palwal-Mathura-Jhansi-Bina	NCR	New Delhi-Jhansi (excluding Palwal-Mathura)	270	2001-02	Completed	Completed	Entire work completed material reconciliation done. The system on New Delhi-Palwal has been commissioned on 29.08.2013 and stated to be working. However, the system is not effectively utilized as the communication amongst Driver, Guard, Control office and station is not working due to weak signal between New Delhi-Palwal. As per the railway administration records, the MTRC system is functional over New Delhi – Jhansi section. However, review of records over NCR showed that there is no utilization of the MTRC system on this as the maintenance system (AMC) is not in place and MSC at Agra is defective
4		NCR	Palwal-Mathura	83	2004-05	Completed	Completed	Entire work completed, material reconciliation is prepared. Final variation to be prepared.As per the railway administration, the section is functioning satisfactorily. However, Audit observed that MTRC system is not being utilised over this section as the maintenance system (AMC) is not in place and MSC at Agra is defective.
5		NCR	Jhansi-Bina	150	2013-14	Work in Progress	Not in operation	The project consisting 150 RKM was planned by IRPMU in the year 2013-14. This is a part of the New Delhi-Nagpur route which is divided in to five sanctioned works viz. New Delhi-Jhansi (excluding Palwal-Mathura), Jhansi-Bina, Bina-Itarsi and Itarsi-Nagpur for the purpose of MTRC system. Tender of the said project floated in January 2016 was discharged (January 2017) with recommendation for re-inviting the same with wide publicity. The tender was again invited (20.01.2017) with date of opening of bid 06.03.2017, which was yet to be finalized. Estimate has been prepared and sanctioned. The work of Jhansi-Bina MTRC (without MSC) 150 kms has since been transferred from Jhansi Division to IRPMU in September 2016 to be executed by IRPMU on grounds of similar work for Ghaziabad-Mughalsarai being under execution at IRPMU.
6	Bina-Itarsi	WCR	Bina-Itarsi	230	2013-14	Work in Progress	Not in operation	Tender open on January 2016 brief note for technical bid vetted by Accounts and tender case with TC.
7	Itarsi-Nagpur	CR	Itarsi-Nagpur (without master switching centre)	290	2013-14	Work in Progress	Not in operation	Estimate has been prepared and sanctioned (September 2016). The contract for the work is yet to be awarded.
8	New Delhi-Ghaziabad-Aligarh Junction-Etawah-Mughalsarai-Dhanbad-Howrah	NR	New Delhi-Ghaziabad including Delhi-Sahibabad	38	2016-17	Work in Progress	Not in operation	Detailed Estimate is under vetting.
9		NCR	Etawah: Indoor equipment, recording system & CNL equipment in connection with CNL center, Ghaziabad -Kanpur	410	2002-03	Work in Progress	Not in operation	Part of work Etawa-Aligarh completed in No. 2013. Due to power supply issue from electrical deptt., the system was switched OFF & restored on march 2016.
						Work in Progress		System offered to Allahabad division with hand set & SIM for use in Oct-16. But due to problem in Agra MSC (in which the SIMs are to programmed), system could not be put into use.
10		NCR	Aligarh: Indoor equipment, recording system & CNL equipment in connection with CNL center (Kanpur-Mughalsarai), KFW Work	350	2002-03	Work in Progress	Not in operation	In the part section Aligarh–Etawah (170 RKM), major works related to MTRC were completed (November 2013). The completion report is yet to be drawn and MTRC could not be put under use due to non-completion of whole work. In respect of works of other sections i.e. Ghaziabad-Aligarh and Etawah-Kanpur-Mughalsarai, estimates have been prepared and sanctioned (March 2005 to July 2007), but the works are yet to be completed.

Annexure 5.1 (Para 5.1) - Status of MTRC projects								
S. no	Group	Zonal Railway	Name of the section where MTRC Project implemented	Route KM	Year of inclusion in Works Programme	Status as on 31-03-2017	Status of the project	Audit findings
11		ECR	Mughalsarai - Dhanbad	400	2000-01	Completed	Not in operation	The system has been commissioned. However, the same is not being utilized due to the following reasons: • MTRC system is not available from Dhanbad to Howrah and Mughalsarai to Delhi. • There exist a blind spot between Koderma – Gaya section of 0.5 RKM • There is a failure of connectivity between Base Station Controller and Mobile Services Switching Center provided by Railtel Communication India Limited (RCIL). • There is shortage of mobile equipment. • Annual maintenance support for the system is not in place.
12		ER	Dhanbad - Howrah	270	Not available	Completed	Not in operation	The system was commissioned in (22 January 2017), but not operational due to the following reasons: • M/s Nortel (OEM) had commissioned the system, but as OEM has since been closed, the system is not working. To be operational, the system is required to be upgraded. • MSC of Nortel at Kolkata is not working and MSC (proposed) at Tundla is required to be relocated to Kolkata.
13	Kanpur-Lucknow	NCR	Lucknow-Kanpur	75	2007-08	Completed	Completed	The section has been commissioned (February 2015) but not functional till the completion of MTRC project in New Delhi – Kanpur section. Lucknow Division has not taken over due to continued deficiencies in the work of MTRC executive over this section. The system was offered to NR with hand sets in October 2015 to Sr. DSTE/LKO but not taken over. Now the same is under process with Dy. CSTE/MW/NR for handing over the system.
14	Bally-Shaktigarh	ER	Bally-Shaktigarh	90	2008-09	Work in Progress	Not in operation	Tender terminated. Estt. Vetted on 15.04.2016 & sanctioned on 03.05.2016
15	New Bongaigaon - Kamakhya-Guwahati-Lumding	NFR	Kamakhya-Goalpara-New Bongaigaon	175	2012-13	Work in Progress	Not in operation	Estimate revised due to inclusion of spectrum charges of MTRC for one year instead of three years. Revised estimate sent to HQ finance on 08.01.2016 for vetting. After finance observation case return on 08.03.2016 and resubmitted on 17.03.2016. Return on 22.06.2016 with finance observation. Submitted to HQ on 27.07.2016.
16		NFR	Guwahati-Lumding	181	2012-13	Work in Progress	Not in operation	Estimate revised due to inclusion of spectrum charges of MTRC for one year instead of three years. Revised estimate vetted by Divisional finance on 11.12.2015 and sent to HQ on 01.03.2016. Case returned by HQ finance on 08.03.2016 with finance observation. Resubmitted on 08.09.2016, finance return unvetted on 26.09.2016. The system has been commissioned. However, only 200 OPH sets out of 968 OPH sets with NFR are working as against the total projected requirement of 1800 OPH. Thus, there is no utilization of MTRC over NFR.
17	Churchgate-Virar-	WR	Churchgate-Virar-Repl. suburban section & integration with MTRC of Central Railway	60	2012-13	Work in Progress	Not in operation	Survey & designing of system completed. Site survey for indoor equipment installation at existing locations completed. Land location for erecting new tower approved. CMRTS license received from DOT on 17.12.2015. WPC license for spectrum frequency is received on 22.08.2016. Tower design, soil testing report of JOS is received & BA is awaited. Space for pole mast at CCG station building is under process.

Annexure No. 7.1 (Para No. 7.1)

Statement showing the sites identified for commercial development by RLDA and their current status

S. No.	Zonal Railway (Division)	Name of Site	Area (in sqm)	Whether Consultant appointed (Month)	Status of Tender for development of land	Whether Developer appointed	Current status
1	SCR (Vijaywada)	Near Railway Hospital (Poornandam Pet) Vijaywada	1497.337	Yes (November 2007)	(i)11.09.09 but cancelled (ii)2010 (i) (iii)June 2014 (ii) (Cancelled) (iii) (iv) November 2016	Yes (December 2010, March 2017)	In both the cases, RLDA had to cancel the LOA as both the parties did not deposit 1st instalment of lease premium.
2	ECoR(Waltair)	DabaGardens (Ambedkar Circle, Visakhpatnam)	1999.1471	Yes (May 2007)	14.06.2008 11.09.2009 27.08.2013 01.08.2016	Yes (April 2014, November 2017)	
3	NR (Ferozpur)	Katra (Ferozpur)	42775.272	Yes (March 2008, January 2015)	Dec-10	No	After non receipt of bid in December 2010, RLDA took about five years in re-appointment of Consultant.
4	NCR (Jhansi)	Kampoo Kothi, Gwalior (Jhansi)	5989.348	Yes (August 2010)	27.10.2015 (No bid received) Aug-16	No	RLDA took much time in appointment of Consultant. No suitable offer was received for development in October 2015 and August 2016.
5	SCR (Nanded)	Part of old ITDC Hotel, Aurangabad	38971.23	Yes (November 2007, September 2013)	(i) 12.02.2010 No bid received (ii) 01.02.2011 Highest bid for ₹ 55.52 crore was received but rejected. (iii) 31.01.2017 No bid received.	No	RLDA rejected highest offer received for development of land. Subsequently, no offer was received.
6	NCR (Jhansi)	Gola ka Mandir, Gwalior	13216.64	Yes (August 2016)	Jul-08	Yes (August 2009)	The land could not be developed so far due to injudicious exchange of railway land by RLDA which led to litigation and avoidable payment of
7	SCR (Secunderabad)	Near Moula Ali flyover, Telangana	88962.005	Yes (November 2007)	--	No	Change in decision of Railway for use of land and non-finalization of open space reservation (OSR) clause delayed the project.
8	SR (Chennai)	Kakkapalam, Padi(Chennai)	21003.18	Yes (January 2008)	--	No	No offer was received during tender in view of OSR issue which could not be resolved till date.
9	SR (Salem)	Plots at Salem market station Salem (Salem)	3318.422	Yes (December 2010)	15.03.2017	No	Decision of Railway to develop only one plot instead of two led the Consultant to revise its report. RLDA also delayed tender process for development of land.
10	SR (Tiruchirrapalli)	Plot at station Nagaptinam (Tiruchirapalli)	1294.994	Yes (December 2010)	--	No	Matter of change in land use was not taken to appropriate authorities due to which the same could not be finalized so far.
11	SR (Tiruchirrapalli)	Plots at station Pattukoti (Tiruchirapalli)	8012.776	Yes (March 2016)	--	No	Delay in providing land details and further verification of land delayed appointment of Consultant

Annexure No. 7.1 (Para No. 7.1)							
Statement showing the sites identified for commercial development by RLDA and their current status							
S. No.	Zonal Railway (Division)	Name of Site	Area (in sqm)	Whether Consultant appointed (Month)	Status of Tender for development of land	Whether Developer appointed	Current status
12	SR (Tiruchirrapalli)	Plots at station Villipuram (Tiruchirapalli)	7081.999	Yes (May 2016)	--	No	Delay in providing land details, delay in inspection of land and further delay in appointment of Consultant led to delay in development of land.
13	ECR (Samastipur)	On station approach road, Raxaul(Samastipur)	22581.46	Yes (November 2007)	07.07.2017	No	Delay in obtaining complete land records from Railways and State Govt. and further delay in obtaining NOC from Executive Officer led to re-engagement of Consultant and further delay in development of land.
14	NCR (Allahabad)	Nirala Nagar, Kanpur	264886.99	Yes (May 2007)	--	No	Railway Board delayed approval for residential development of land which delayed the appointment of Consultant.
15	NEFR (Katihar)	Burdwan Road Siliguri (Katihar)	11994.882	Yes (January 2008)	--	No	Consultant submitted report in January 2009 but action could not be taken as non-encumbered land was not provided by Railways.
16	NR (Delhi)	Ashok Vihar New Delhi (Delhi)	132494.08	Yes (November 2007 and August 2016)	--	No	Railway delayed approval for residential development due to which Consultant was again appointed.
17	WR (Rajkot)	Old station area Jamnagar (Rajlkot)	11088.39	Yes (November 2007)	--	No	Consultant submitted report in August 2010 but action could not be taken as non-encumbered land was not provided by Railways.

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