

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-up¹⁸⁸ 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,

¹⁸⁸RLDA 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 expenses¹⁸⁹of 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 sites¹⁹⁰ 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.

¹⁸⁹Annual 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

¹⁹⁰Commercial 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 sites¹⁹¹ 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:

¹⁹¹Gautam 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 rules¹⁹², 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 cases¹⁹³, 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 cases¹⁹⁴, 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

¹⁹²Clause 5 (b) of RLDA (Constitution) Rules, 2007

¹⁹³Kampoo Kothi, Gwalior (Jhansi), Plots at Salem market station (Salem), Plot at Nagapattinam 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 cases¹⁹⁵ 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) Rule¹⁹⁶ 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 sites¹⁹⁷ 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

¹⁹⁵Katra (Firozpur),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)

¹⁹⁶Rule 6 of the RLDA (Constitution), 2007

¹⁹⁷Vijaywada, Vishakapatnam, Katra, Aurangabad, Kampoo Kothi/Gwalior

year 2016-17, five sites (including four selected sites¹⁹⁸) 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 procedure¹⁹⁹ 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

¹⁹⁸Raxaul, Sarai Rohilla, Aurangabad, Katra

¹⁹⁹Para 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 instructions²⁰⁰, 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 cases²⁰¹ 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

²⁰⁰Para 3(c) of Annexure I of Railway Board's letter No. 2008/LML/2/17 dated 27 April 2009

²⁰¹Burdwan 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 development²⁰² 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 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

²⁰²As 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 Nagapattinam 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 two²⁰³ 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 one²⁰⁴, 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 stations²⁰⁵, 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***

²⁰³Old Steam Loco Shed, Sarai Rohilla/Delhi, Gaya and Bangalore Platform Road

²⁰⁴Gola 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 applications²⁰⁶ 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 Centre²⁰⁷, to be set up by CRIS. In February 2012, CRIS earmarked a sum of ₹ 17.71 crore²⁰⁸ for Disaster Recovery Data Centre (DRDC) to cater to the following requirements:

²⁰⁶Like Passenger Reservation System, Unreserved Ticketing System, Control office Application, Freight Operations Information system, e-Procurement System etc.

²⁰⁷It 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 applications²⁰⁹.
- 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:

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 reports²¹⁰.

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 cables²¹¹, 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

²⁰⁹Indian 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.

²¹⁰Inception 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 WAMS²¹²) 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 assets²¹³, land & amenities (L&A) assets²¹⁴, mechanical engineering assets²¹⁵, signal and telecommunication (S&T) assets²¹⁶ and safety assets²¹⁷. 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.

²¹³Track-line (electrified-non electrified), bridges, tunnels, level crossings, yards, sidings etc.

²¹⁴Railway buildings, colonies, stations, station facilities/passenger amenities, workshops, sheds, maintenance depot etc.

²¹⁵Sick lines, production units etc.

²¹⁶Signal and interlocking system at stations/sections, OFC network, power supply equipment's, cables, control phones etc.

²¹⁷Like 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/FOIS²¹⁸ (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 Systems²¹⁹ (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:

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

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 crore²²⁰. 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 GIS²²¹ 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

²²¹A 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 members²²² 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).