

CHAPTER-II

ECONOMIC SECTOR

Performance Audit on “Implementation of projects for rural connectivity with NABARD loans”

COMPLIANCE AUDIT

CHAPTER-II

ECONOMIC SECTOR

2.1 Introduction

The audit findings relating to the State Government departments/offices under Economic Sector feature in this chapter. During 2017-18, against a total budget provision of ₹ 28,744.24 crore, an expenditure of ₹ 16,563.85 crore was incurred by 18 departments. Department-wise details of budget provision and expenditure incurred thereagainst by these 18 departments are given in *Appendix-2.1*.

2.1.1 Planning and conduct of Audit

During 2017-18, out of 194 auditable units under Economic Sector (Non-PSUs), 91 units¹ were audited based on risk analysis during the year involving an expenditure of ₹ 6,320.98 crore (including expenditure of earlier years). This chapter contains one Performance Audit (PA) on 'NABARD assisted Rural Infrastructure Development Fund (RIDF) for rural connectivity in Assam' and four Compliance Audit paragraphs.

The major audit observations are discussed in succeeding paragraphs.

PERFORMANCE AUDIT

Finance Department

2.2 Implementation of projects for rural connectivity with NABARD Loans

With a view to strengthening the road infrastructure in rural areas of Assam, the Public Works (Roads) Department, Government of Assam (GoA) with funded through loan from National Bank for Agriculture and Rural Development (NABARD), constructed/upgraded/widened roads and bridges in rural Assam in a phased manner.

A review of the implementation of rural road and bridge projects in Assam covering the period from 2013-14 to 2017-18 highlighted that though 57 per cent of the projects were completed during the period and GoA was making repayment of loan with interest on regular basis as per the norms and repayment schedule prescribed by NABARD, there were significant issues affecting the progress of projects. Audit observed deficiency in planning, tender and contract management and violations of NABARD Guidelines in implementation of the projects as summarised below.

Highlights:

- **Out of 752 projects implemented during 2013-18, 428 (57 per cent) projects were completed covering road length of 745.65 km (58 per cent of**

¹ High risk units: 33, medium risk units: 9 and low risk units: 49.

sanctioned length of 1,292.34 km). As of March 2018, 116 projects remained incomplete with delay ranging from 365 to 1,461 days from the stipulated date of completion.

(Paragraphs 2.2.4.1 and 2.2.4.2)

- The state did not prepare any Master Plan to prioritise work to be executed for rural connectivity.

(Paragraph 2.2.3.1)

- There were instances of execution of inadmissible State Highway projects.

(Paragraph 2.2.5.2)

- In 42 per cent of selected works, DPRs were prepared without proper survey resulting in subsequent modification of original estimates. These modified estimates were not technically sanctioned to assess the technical viability. DPRs were also not designed considering traffic census, earthquake risk etc. to ensure better riding quality and longevity of the constructed road.

(Paragraphs 2.2.7.1 and 2.2.6.5)

- There were instances of awarding of work before technical sanction resulting in substandard works. Besides, provisioning of shorter defect liability period was also noticed resulting in owing of repairing liability by the department.

(Paragraphs 2.2.7.2 and 2.2.6.1)

- There were instances of substandard work, extra expenditure of ₹ 3.09 crore, short execution of ₹ 1.56 crore etc.

(Paragraphs 2.2.6.4, 2.2.7.4, 2.2.7.5 and 2.2.7.6)

2.2.1 Introduction

Rural Infrastructure Development Fund (RIDF) was introduced in 1995-96 by Government of India (GoI) and Reserve Bank of India (RBI) to give access to low cost funds to extend the coverage of infrastructure for economic growth and poverty alleviation. The eligible activities are classified under three broad categories of Agriculture, Social and Rural Connectivity sectors under the scheme. In Assam, implementation of projects under RIDF commenced from 1996-97 (Tranche-II).

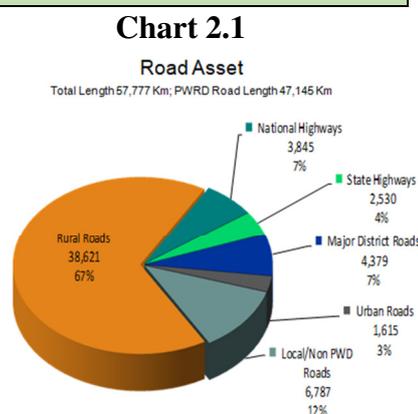
Under the category 'Rural Connectivity', infrastructure projects viz., rural road and rural bridge projects are eligible. Road projects on Major District Roads (MDRs), Other District Roads (ODRs) and Rural Roads (RRs) are eligible for loan under RIDF except the projects on State Highways (SH) and National Highways (NH). GoA obtained loan assistance to the extent of 90 per cent of the estimated project costs from NABARD under RIDF and incurred expenditure of ₹ 860.76² crore (50.32 per cent) during 2010-11 to 2017-18 against the

² Total expenditure incurred was ₹ 880.07 crore (loan share : ₹ 860.76 crore; state share : ₹ 19.31 crore).

sanctioned cost of ₹ 1,710.69 crore to complete 417 projects (78 per cent) out of 533 projects due for completion during the period 2013-18.

2.2.1.1 Road Assets of Assam

Public Works Road Department (PWRD) of Government of Assam (GoA) manages State road network of 47,145 km out of total road length of 57,777 km in the State. National Highway of 3,845 km is managed by a number of agencies like National Highways Authority of India (NHAI), PWD-NH & Buildings *etc.*, and the remaining 6,787 km falls under local roads. This is shown in the *Chart 2.1*.



Source: Report of PWRD.

Out of 38,621 km rural roads in the State, 1,432 km (3.70 per cent) were completed under RIDF since its inception in Assam³.

2.2.1.2 Organisational Setup

Finance (Economic Affairs) Department (FEAD), GoA is designated as the Nodal Department for drawal and disbursement of loan sanctioned by NABARD under RIDF and arranging repayment of the same along with interest thereon while the PWRD under the administrative control of the Commissioner and Special Secretary to GoA is responsible for implementation of the road and bridge projects under RIDF. The execution of the works under RIDF is administered by the Chief Engineer (CE), Roads. The CE is assisted by the Additional Chief Engineer (Planning), while at the field level, the projects are executed by the Executive Engineers (EEs) of 51 Public Works Roads Divisions, as depicted in *Appendix 2.2*.

2.2.2 Scope and Methodology of Audit

Test check of records for the years 2013-18 was carried out between April and July 2018 at the offices of the Secretaries of the Finance (Economic Affairs) Department (FEAD) and Public Works (Roads) Department (PWRD), Chief Engineer (CE), PWD (Roads) and Executive Engineers (EEs) of 14 (out of 51) PW Divisions⁴ by following the sampling methodology stated in the succeeding paragraphs. Audit commenced with an entry conference (12 April 2018) with the representatives from PWRD, Finance Department and regional office of

³ Annual Administrative Report, PWRD 2017-18.

⁴ Golaghat Rural Road Division, 2. Dibrugarh Rural Road Division, 3. Charaideo Rural Road Division, 4. Dhemaji Rural Road Division, 5. Guwahati Rural Road Division, 6. North Guwahati State Road Division, 7. Dhubri Rural Road Division, 8. Barpeta Rural Road Division, 9. Silchar Rural Road Division, 10. Musalpur (R&B) Division, 11. Kokrajhar Rural Road Division, 12. Dokmoka Road Division and 13. Haflong Road Division and 14. Maibang (R&B) Division.

NABARD wherein the audit objectives, criteria and methodology were explained. The findings of the Performance Audit were discussed in an Exit conference (18 December 2018) held with the representatives of GoA, wherein, Principal Secretary, Finance Department, Chief Engineer, PWD (Roads), the Secretary, PWD and representative of the Regional office of NABARD, Guwahati were present.

2.2.2.1 Sampling and audit coverage

Projects relating to rural road under tranche XVI to XXIII executed during 2013-18 were covered under the present audit. We test checked 76⁵ projects as shown below:

| Total Public Work (PW) Divisions in Assam | PW Divisions selected | Total Projects (Roads & Bridges) | Projects in selected PW Divisions | No. of Projects test checked in Audit | Total Sanctioned amount | Sanctioned amount for Projects selected |
|---|-----------------------|----------------------------------|-----------------------------------|--|-------------------------|---|
| 51 | 14 | 752 | 269 | 76 (25 per cent) (Roads-61, Bridges-15) | ₹ 1,710.68 crore | ₹ 376.18 crore (22 per cent) |

- Divisions were selected with due geographical representation based on Probability Proportional to Size Without Replacement (PPSWOR) method with the total amount of sanctioned costs⁶ of the projects implemented during the last five years as the selection parameter.
- In the selected Divisions, 25 per cent each of completed and ongoing works were selected using the same sampling approach (PPSWOR).

The selected projects across 14 executing divisions covered 13 (out of 33) districts as indicated in the map shown in *Appendix 2.3*.

2.2.2.2 Audit objectives

The audit objective was to examine whether:

- the loan amount made available to the implementing agencies was used economically, efficiently and effectively;
- the execution of the projects of rural connectivity was as per NABARD Guidelines and applicable technical specifications;
- the quality control and monitoring mechanism was adequate and effective.

⁵ 61 roads (244.90 km) and 15 bridge (0.95 km) projects.

⁶ GoA could not furnish division wise expenditure during the process of sample selection.

2.2.2.3 Audit criteria

The criteria against which the audit findings were benchmarked were derived from the followings sources:

- Guidelines for selection of road and bridge projects under NABARD scheme and terms and conditions of NABARD loans;
- Detailed Project Reports (DPRs), Standard Specifications and Contract Conditions;
- Quality control, project monitoring and evaluation system prescribed;
- Assam PWD Manual, Schedule of Rates (SoR) for Roads & Bridges and Assam Financial Rules; and
- Specifications issued by Indian Road Congress/Ministry of Road Transport and Highways (MoRTH).

2.2.3 Planning

A comprehensive road plan to ensure rural connectivity especially in remote areas for facilitating construction of roads in a scientific manner was necessary. RIDF guidelines provide for submission of Detailed Project Reports (DPRs) containing technical and financial parameters, drawings, maps *etc.*

- DPRs for project proposals should be prioritized based on the Master Plan of the State Government and are to be submitted by the implementing department of the State Government to NABARD through the Nodal Department.
- While selecting road projects, it shall be ensured that the connectivity with pucca roads (Black topped) is observed at both the ends of road under consideration.
- The projects should be completed within the gestation period of three to five years and cost estimates of the projects should be as per the latest Schedule of Rate (SoR) and should be prepared after detailed field survey.

2.2.3.1 Deficiencies in Planning

As any borrowing entails the liability of repaying loan along with interest, the scope of availing loan should be limited to high priority areas only. PWRD took up projects under RIDF on the recommendations from various Government and non-Government sources without preparing any Master Plan as well as Priority List as envisaged in RIDF guidelines.

In 19 (out of 61) road projects examined (road length: 38.42 km and estimated cost: ₹ 37.14 crore) in audit, it was observed that connectivity with pucca roads at both ends was not ensured. Few roads were ending at private property, earthen



tracks, or fields. CE, PWRD during exit meeting (December 2018) admitted that Master plan was not prepared and accepted the audit observations but failed to give relevant reply. In all the cases, DPRs concerned did not indicate ending of roads at private property, earthen tracks or fields. The lacunae in selecting the projects were noticed during the joint site visits. For example, in case of road from Kulamua to Kacharipathar Road (Ch. 0 m to 2,670 m) under RIDF XX in Dhemaji Rural Road Division at estimated cost of ₹ 1.87 crore with projected habitation of 1,513 ended at Kacharipathar at Ch. 2,670 m at an earthen track.

Recommendation: *The responsibility in selecting the ineligible and incomplete projects without preparing Master Plan lies with the CE and Government may fix accountability in this regard.*

2.2.4 Targets and achievements

2.2.4.1 Physical Progress of projects

As of March 2018, out of 752 projects (under tranche XVI⁷ to XXIII) implemented during 2013-18, 417 projects were completed as detailed in *Table-2.1* below:

Table-2.1

Physical progress of road and bridge projects during 2013-18

| Tranche | Total Projects under NABARD | | Projects due for completion | | Projects not due for completion | | Completed Projects | | Ongoing Projects | |
|--------------------|-----------------------------|------------|-----------------------------|------------|---------------------------------|-----------|--------------------|------------|------------------|-----------|
| | Roads | Bridges | Roads | Bridges | Roads | Bridges | Roads | Bridges | Roads | Bridges |
| XVI* | 3 | 9 | 3 | 9 | - | - | 3 | 9 | 0 | 0 |
| XVII** | 6 | 101 | 6 | 101 | - | - | 6 | 85 | 0 | 16 |
| XIX*** | 42 | 51 | 42 | 51 | - | - | 35 | 41 | 7 | 10 |
| XX | 176 | 7 | 176 | 7 | - | - | 144 | 2 | 32 | 5 |
| XXI | 136 | 2 | 136 | 2 | - | - | 92 | 0 | 44 | 2 |
| XXII ⁼ | 112 | 0 | - | - | 112 | 0 | Not Due | Not Due | Not Due | Not Due |
| XXIII ⁼ | 25 | 82 | - | - | 25 | 82 | Not Due | Not Due | Not Due | Not Due |
| Total | 500 | 252 | 363 | 170 | 137 | 82 | 280 | 137 | 83 | 33 |
| Grand Total | 752 | | 533 | | 219 | | 417 | | 116 | |

Source: Information furnished by CE, PWRD.

* *Tranche XVI included 16 projects of which one road and three bridges were completed prior to 2013-14.*

** *Tranche XVII included 108 projects of which one bridge was completed prior to 2013-14.*

*** *(Tranche XVIII did not include roads and bridge projects in Assam).*

⁼ *₹ Does not include 219 projects under tranches XXII and XXIII*

Out of 752 projects, 219 projects pertaining to Tranche XXII and XXIII were not due for completion by March 2018 i.e. till audit period.

2.2.4.2 Delay in completion of projects

Though 752 projects were approved by NABARD for execution but only 533 projects⁸ (tranche XVI to XXI) were due for completion by March 2014 to

⁷ Tranche XVI and XVII were sanctioned during 2010-11 and 2011-13 respectively.

⁸ 219 projects under tranches XXII and XXIII are scheduled to be completed by March 2019 and March 2020.

March 2018. Of these, 417 were completed and balance 116 remained incomplete with delay ranging from 365 to 1,461 days against the stipulated date of completion as prescribed by NABARD.

Out of selected 76 projects (61 roads and 15 bridges) for audit, 55 projects were to be completed by March 2014 to March 2018. However, as of July 2018, only 30 projects were completed during prescribed time schedule, 21 projects were completed with delays ranging between 10 and 1,371 days from the stipulated dates of completion and four projects remained incomplete (physical progress between 45 and 85 *per cent*) for 122 to 1,461 days beyond the stipulated dates of completion as shown in **Table-2.2** below:

Table-2.2: Status of delay in completion of selected projects

| Tranche | Stipulated date of completion | Total projects | Projects completed in time | Projects completed with delay (Range in days) | | Incomplete projects with delay Period of delay | |
|--------------|-------------------------------|----------------|----------------------------|---|------------------|--|-----------------|
| XVI | 31 March 2014 | 5 | 1 | 4 | 10 - 665 | 0 | NIL |
| XVII | 31 March 2014 | 9 | 4 | 4 | 431 - 1371 | 1 | 1461 |
| XIX - I | 31 March 2015 | 3 | 0 | 3 | 56 - 764 | 0 | NIL |
| XIX - II | 31 March 2016 | 2 | 1 | 1 | 113 | 0 | NIL |
| XX | 31 March 2017 | 24 | 16 | 8 | 60 - 354 | 0 | NIL |
| XXI | 31 March 2018 | 12 | 8 | 1 | 40 | 3 | 122 (July 2018) |
| Total | | 55 | 30 | 21 | 10 - 1371 | 4 | |

Source: Information furnished by CE, PWRD.

Out of 25 delayed projects (21 completed and four ongoing), reasons for delay were recorded for six projects only *viz.*, scarcity of forest materials (1 project), heavy rainfall/land dispute (2 projects) and riots/bandhs/problem with contractor (3 projects). Reasons for delay in case of remaining 19 projects were not found recorded. During Exit Meeting (December 2018), CE, PWRD admitted delays in completion of projects.

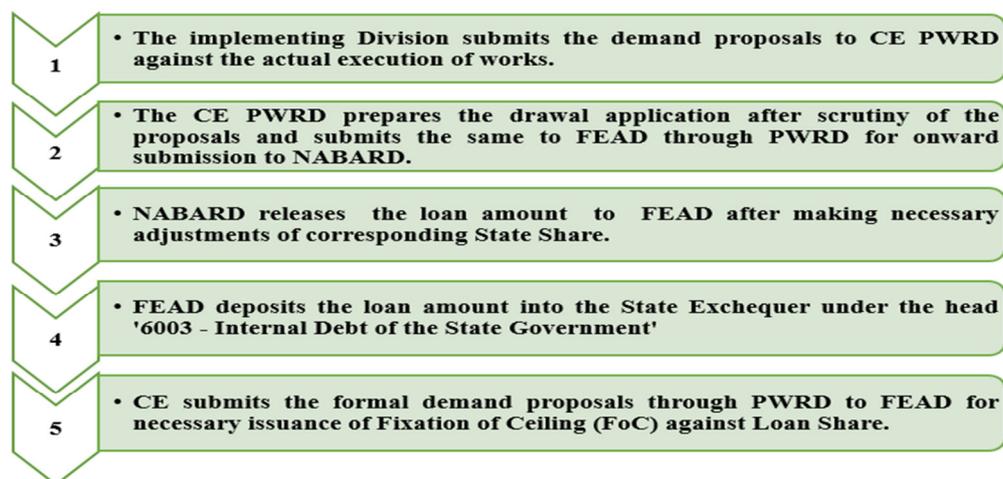
The delay stated above indicated deficiency in execution including its regular monitoring at different levels.

- It was the responsibility of EE concerned to complete the work within the projected time.
- CE was to monitor the progress of work regularly to ensure timely completion.
- The State level High Powered Committee (HPC), in its meeting also did not analyse the constraints and remedial measures for timely completion of projects.

Recommendation: *CE and the EEs concerned may ensure timely completion of the projects by ensuring monitoring of progress of projects at regular intervals.*

2.2.5 Financial management

As per RIDF guidelines, NABARD provides loans on reimbursement basis where the expenditure had to be incurred to claim the amount of expenditure incurred except for the initial 30 percent of the project loan, given as mobilization advance (MA). The drawal applications are submitted to NABARD and the loan amounts are reimbursed by NABARD in the following manner:



As per the General Terms and Conditions of NABARD, each drawal of fund will be deemed as a separate loan for the purpose of repayment. Repayment shall be made in equal annual installments within seven years from the date of drawal, including initial grace period of two years. The loan entailed interest at variable rates between 4.75 to 7.50 per cent during 2013-18, and is recorded in the sanctions accorded by NABARD.

2.2.5.1 Excess reimbursement of loan amount by NABARD

Position of Tranche-wise sanctioned cost of the 752 projects implemented under RIDF during 2013-18 *vis-a-vis* expenditure (as of March 2018) incurred thereagainst and reimbursed by NABARD is depicted in *Table 2.3*.

Table-2.3

(₹ in crore)

| Tranche | Projects (Roads and Bridges) | Sanctioned Amount | | Actual Expenditure incurred (Excluding State share) | Reimbursement claimed by GoA and released by NABARD |
|--------------------|------------------------------|-------------------|---------------|---|---|
| | | NABARD Share | State Share | | |
| XVI ⁹ | 12 | 90.34 | 10.04 | 89.67 | 88.02 |
| XVII ¹⁰ | 107 | 142.89 | 15.88 | 133.54 | 133.21 |
| XIX | 93 | 196.15 | 21.59 | 176.37 | 183.67 |
| XX | 183 | 253.23 | 28.14 | 211.75 | 219.13 |
| XXI | 138 | 208.14 | 23.12 | 141.99 | 160.85 |
| XXII | 112 | 306.84 | 34.09 | 70.37 | 79.85 |
| XXIII | 107 | 342.19 | 38.03 | 37.07 | 29.39 |
| Total | 752 | 1539.78 | 170.89 | 860.76 | 894.12 |

Source: Information furnished by CE, PWRD and NABARD.

⁹ 16 projects were sanctioned of which four projects were implemented prior to 2013.

¹⁰ 108 projects were sanctioned of which one project was completed prior to 2013.

Table 2.3 depicts the excess reimbursement of ₹ 33.36 crore by NABARD over actual expenditure by the implementing department against Tranches XIX to XXII. The excess reimbursement of ₹ 33.36 crore has resulted in an estimated additional interest liability of ₹ 7.92¹¹ crore. This indicates that the reimbursement of loan by NABARD was not limited to the actual expenditure. This mechanism was in contravention to the extant RIDF guidelines that NABARD would reimburse loan against expenditure.

It is recommended that Finance (Economic Affairs) Department should submit reimbursement claims based on actual expenditure and that NABARD should reimburse loan amount after verifying correctness of reimbursement claims and in accordance with guidelines.

2.2.5.2 Irregular utilisation of NABARD fund on State Highways

Out of 76 test checked projects, improvement of two State Highway Projects¹² were executed under RIDF with a total cost of ₹ 86.14 crore. Thus, ₹ 76.85 crore from NABARD loan was utilized on State Highways in violation of NABARD Guidelines.

FEAD made proposal for such inadmissible projects under RIDF and NABARD also sanctioned those in violation of their own Guidelines. State level High Powered Committee (HPC) also did not monitor the process of proposal and sanctioning of projects under RIDF.

On this being pointed out, NABARD stated (24 January 2019) that the projects were Major District Roads. However, the reply was not tenable as the DPRs depicted those as State Highways.

2.2.5.3 Lapses of NABARD

Any RIDF project to get sanctioned by NABARD has to comply with its guidelines and a separate checklist was provided by NABARD to ensure compliance. Audit noticed the following lapses on the part of NABARD in which projects were approved in violation of RIDF guidelines:

- NABARD sanctioned projects even though GoA had not prepared Master Plan and DPRs did not have the mandatory California Bearing Ratio and traffic census (Paras 2.2.3.1 and 2.2.6.2)

¹¹ Calculated based on the minimum lending rate of 4.75 per cent across the selected tranches on reducing balance of loan.

¹²

| Project | Sanctioned cost | (₹ in crore) |
|--|-----------------|----------------------------------|
| | | Loan Share as released by NABARD |
| Improvement and upgradation of Dhodar Ali from Ch. 160.747 KM to 195.437 KM including approaches and protection works Br. No. 128/1 under RIDF XIX | 40.60 | 36.52 |
| Double laning of kalitakuchi Road from Ch. 0 Km to 24 Km under RIDF XVI | 45.54 | 40.33 |
| Total: | 86.14 | 76.85 |

- NABARD reimbursed loan amount of ₹ 894.12 crore against actual expenditure of ₹ 860.76 crore submitted by GOA which resulted in excess claim amounting to ₹ 33.36 crore (Para 2.2.5.1)
- Two inadmissible projects relating to State Highways were approved by NABARD in violation of guidelines of RIDF (Para 2.2.5.2)
- NABARD approved road projects other than black-topped roads, and roads not connecting two *pucca* roads (Paras 2.2.6.5 and 2.2.3.1)
- NABARD made reimbursement of expenditure in respect of projects not executed as per specifications laid down in the DPRs (Para 2.2.6.4) resulting in inferior works.
- NABARD allowed reimbursement against revised estimates and not based on original DPR (Para 2.2.7.1).

It is the responsibility of NABARD that projects are scrutinised properly so that the lapses as mentioned above do not recur.

2.2.5.4 Lapse of sanction

As per RIDF guidelines, the implementation phase for projects sanctioned is spread over 2-5¹³ years, varying with the type of the project and also location of the State. As against maximum phasing period of 2-3 years for normal projects, a phasing period of four years is permitted for projects from North East.

The execution of the projects under Tranche XVI¹⁴ (sanctioned on March 2011) and XVII¹⁵ (sanctioned between March 2012 and March 2013) were to be completed by March 2014. NABARD closed the operation of Tranche XVI and XVII on 30 September 2017 and 31 March 2018 respectively without releasing outstanding sanctioned loan shares of ₹ 14.43 crore (against 109 projects). As such, GoA lost the opportunity to avail the balance loan share of ₹ 14.43 crore from NABARD due to closure of the tranches. This led to additional burden on the State resources and at the same time deprived the rural areas of benefits related with road/bridge connectivity for the delayed period.

Recommendation: Government needs to expedite the completion of projects to avoid lapse of sanctions.

2.2.6 Non-compliance with RIDF Guidelines

2.2.6.1 Execution of road works in violation of Indian Road Congress (IRC) standards

As per the RIDF guidelines, the project should be executed as per the IRC standards regarding geometric design, pavement design and also the quality of materials to be used in order to serve the design life period.

¹³ The five years phasing is permitted for major & medium irrigation projects and other stand-alone projects involving RIDF loan of ₹ 50 crore and above.

¹⁴ Tranche XVI had 16 projects in total with sanctioned loan share of ₹ 96.47 crore.

¹⁵ Tranche XVII had 108 projects in total with sanctioned loan share of ₹ 146.43 crore.

Audit noticed that in 74 (out of 76) selected projects, pavements were designed without carrying out the mandatory CBR¹⁶ and traffic census. The onus for such omissions in DPRs lay with the concerned EEs. In some illustrative cases, the technically sanctioned provisions for pavement design were in violation of IRC norms as discussed in the succeeding paragraphs.

2.2.6.2 Under estimation of base and sub-base work in violation of IRC norms

The selected project 'Up-gradation of Improvement of Madankamdev to Bhitorkhola Road (Ch. 0 m to Ch. 2175 m) and Madankamdev to Islampur Road (Ch. 0 m to Ch. 875 m)' was proposed (January 2016) as per IRC: 37-2001 specification. But, the provisions contained in the TS were in violation of IRC 37-2001 specification as shown in *Table-2.4* below:

Table-2.4

| Item of work | Thickness as per IRC 37-2001 norms (in mm) | As per TS (in mm) | Actual execution (in mm) |
|--------------|--|-------------------|--------------------------|
| <i>GSB</i> | 150.0 | 125.0 | 125.0 |
| <i>WBM</i> | 225.0 | 75.0 | 75.0 |
| <i>PC</i> | 20.0 | 0.0 | 0.0 |
| <i>ICBP</i> | 0.00 | 80.00 | 80.00 |

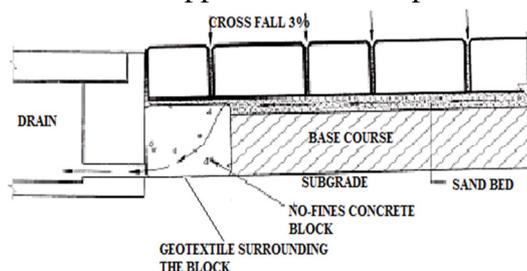
Source: IRC and records of Guwahati Road Division.

Reduction of thickness of sub-base course by 25 mm and base course by 150 mm would have an adverse impact on the strength of the sub-base and base courses. In reply, PWRD stated (March 2019) that all the rural roads were not designed as per IRC: 37-2001 and rural roads were constructed as per IRC SP: 20-2002 to reduce cost. But, the reply was not acceptable as the DPR was prepared on the basis of IRC: 37-2001 and NABARD approved the project on the basis of the DPR.

Further, PWRD stated that IRC provided only the guidelines and they were not rules but it has to be stressed that IRC specifications are based on methodical research for determination of optimum thickness of different layers of pavement. Reduction of thickness in the sub base and base course would have an adverse effect on the foundation of the road, which is fraught with the risk of sub-grade failure and undulating surface of constructed road.

2.2.6.3 Inferior quality of the constructed roads

In terms of IRC norms¹⁷, ICBP had been found applicable in footpaths and sidewalks, residential streets, city streets, rural road through villages, roads in high altitude areas *etc.* Because of the rough surface, these pavements are skid resistant, with the



¹⁶ California Bearing Ratio (CBR) is a measure of load bearing strength of the soil and is an important factor in determining the crust design of the road

¹⁷ IRC SP 63-2004

limitation that the riding quality on ICBP laid surface is inferior to that on a machine laid bituminous or concrete pavement.

IRC norms also envisage that sand bed with compacted thickness of 20-25 mm should be laid over the sub-grade, sub base and base course of the road to maintain the level of tolerance for reducing the risk of undulating surface.

IRC further laid down that block pavement with joints filled with sand is not a waterproof layer and hence care has to be taken to drain out the surface water seeping through the joints.

During audit, it was observed that estimates of all selected roads with ICBP carriageway neither have provisions of sand beddings nor of sub surface drains. As such, the resistance to undulating surface including damage of road through water seepage was ignored.



Photograph (12 July 2018) of eroded base course due to non-construction of sub-surface drain in the Irongmara to Silcoorie Road under Silchar Rural Road Division.



Photograph (27 June 2018) of undulating road surface of the road Pioli Phukan road under Charaideo Rural Road Division, Sonari.

On this being pointed out in audit, CE, PWRD, however, stated (August 2018) that ICBP works were carried out as the maintenance cost was low though the initial cost was high. Further, provision of drainage was not made in the ICBP work due to fund constraints. The reply was not tenable as construction of roads at huge expenditure of ₹ 38.49 crore led to poor riding quality besides leaving possibility of damages. Further, non-construction of compacted sand bed and sub-surface drains surrounded by filter materials led to sub-standard work with poor riding quality.

2.2.6.3.1 Wasteful expenditure and avoidable liability of loan and interest

In respect of ICBP work of Haflong-Jorai-Michidui-Borochemnam (HJMB) Road (28 km long) which was within the Core Network (CN) of PMGSY. A stretch of two km of the road was completed (January 2017) at ₹ 1.50 crore under RIDF¹⁸ (with loan component of ₹ 1.35 crore). Subsequently, execution of the entire road length of 28 km was taken up (May 2018) under PMGSY at ₹ 25.21 crore with the provision of replacement of Interlocking Concrete Block Pavement (ICBP) by Black Topping (BT) on two km. Hence, taking up of project already in CN of PMGSY, under RIDF had resulted in wasteful expenditure of ₹ 1.50 crore on execution of ICBP after one year of its execution with avoidable liability of

¹⁸ Improvement of HJMB Road with Cement Concrete Pavement Block at 1st and 2nd Km under RIDF- XX.

repayment of loan amount of ₹ 1.35 crore along with interest of ₹ 0.39 crore¹⁹. This indicates lack of prioritization of projects under RIDF and unsuitability of ICBP.

The responsibility of substandard execution of works with ICBP lied with the CE and the concerned EEs collectively as they not only violated the RIDF Guidelines, but also did not adhere to the IRC specifications on ICBP works. Government may consider fixing responsibility accordingly for the lapse. NABARD also did not adhere to their own guidelines while approving such projects.

2.2.6.4 Inadequacies in the DPRs in terms of RIDF guidelines

The following deficiencies were noted in the DPRs of the sampled projects:

- **Inadequate Traffic Census:** Traffic density plays a vital role in pavement design of a road and the traffic density is calculated in terms of Passenger Car Unit (PCU) per day. IRC-09: 1972 norm provides that traffic census should be conducted 24 hours a day for seven days. It was observed that out of 76 test checked projects, traffic census of only one project²⁰ was conducted as per norms. Inadequacy in traffic census was fraught with the risk of inaccurate pavement design, riding quality and longevity of the hard crust of the constructed roads

Out of 39 selected (physically verified) completed projects, one case²¹ of damage due to inadequate traffic census was observed.

- **Projects not designed as per Earthquake Zonal Regulations:** As Assam falls in high seismic zone, projects should be designed as per Earthquake Zonal Regulations (EZR) stipulated in Bureau of Indian Standard (BIS) Code. Though CE, PWRD stated (August 2018) that the bridge projects were designed as per EZR, DPRs of all the selected 76 projects did not include any documentation in this regard. As such, resistance to seismic threats for the selected projects remained unascertained and probability remained for damages of the roads due to high intensity earthquakes disrupting the rural connectivity.

Recommendation: Government needs to ensure adherence to the norms of RIDF guidelines while awarding works to contractors. DPRs may be prepared as per IRC norms and considering the traffic census to ensure proper pavement design with improved riding quality.

2.2.7 Implementation Issues

2.2.7.1 DPRs without foolproof survey and investigation

The DPRs for any projects require foolproof survey and investigation for its accuracy as per prevailing site condition. In 32 (out of 76) selected projects, DPRs

¹⁹ Calculated at applicable rate of interest (5.25 to 6.25 per cent) per annum for seven years as per repayment schedule prescribed by NABARD.

²⁰ Double laning of Lokapriya Gopinath Bordoloi Road (Amingaon to Rangmahal High School Road) Ch. 0 m to Ch. 11500 m) under RIDF-XXII

²¹ Lanka Garampani (LG) Road in Dima Hasao District under RIDF-XIX

worth ₹ 194.96 crore were found not suitable as per site condition and working estimates (revised estimate) had to be prepared as per the necessity of site of work with significant alterations in respect of quantity and scope of work. The working estimates were neither administratively approved nor technically sanctioned. 32 DPRs out of 76 (42 per cent) were altered with working estimates (*Appendix 2.4*).

Against 18 (out of 32) projects (total sanctioned cost of ₹ 84.40 crore), the total tendered cost was ₹ 68.75 crore and the tendered costs ranged between 10 and 25 per cent below the sanctioned costs. Subsequently, working estimates were prepared as per site condition to raise the total tendered cost up to ₹ 83.58 crore (within the sanctioned cost) enhancing the original tender cost by ₹ 14.83 crore. The deviation of the modified tendered value of the projects from the original tendered value ranged between 11 and 27 per cent (*Appendix 2.5*). Although the cost of working estimates was within the approved DPR amount, the process of revising the cost after tender made the tendering process unfair. As the department did not accord any revised AA and TS on the working estimates, the execution as per the working estimates were done without assessing technical viability.

The above cases indicated that the site engineers concerned did not carry out comprehensive site survey which led to alteration in the DPR. The EE of the divisions concerned also executed the works without obtaining revised sanctions against the working estimates. The works were executed on working estimates. As the working estimates were bereft of necessary technical sanction, the works were executed without the mandatory technical viability assessment.

CE, PWRD stated (August 2018) that comprehensive DPRs had been prepared for all the rural connectivity projects and in case of working estimates, fresh TSs were not accorded as the costs of the working estimates were within the AA amount. The reply was not tenable as it violated the provisions of Rule 243 of the Assam Financial Rules (AFR) which required issue of revised AA in case the original proposals were materially departed from, even if no increased cost was incurred thereby.

Recommendation: The site engineers may carry out a detailed survey of the site before preparation of the DPR and if the necessity of working estimate arises, the same should be administratively and technically approved.

2.2.7.2 Awarding of works before technical sanction (TS)

As per Handbook of NABARD, administrative approval (AA) should be issued either prior to sanction or within one month from the date of sanction of the project by NABARD. TS should be issued before tendering and issue of work order. During scrutiny of records relating the 76 selected projects, however, it was observed that Press Notice Inviting Tenders (PNITs) and formal work orders were issued before accordance of AA and TS as shown below:

| Number of projects test checked | PNIT issued before AA | | PNIT issued before TS | | Work order issued before TS | |
|---------------------------------|-----------------------|---------------|-----------------------|---------------|-----------------------------|---------------|
| | Number of projects | Range in days | Number of projects | Range in days | Number of projects | Range in days |
| 76 | 63 | 6 to 678 | 66 | 12 to 390 | 12 | 1 to 203 |

CE, PWRD stated that in almost all cases, TS was done before inviting NIT. But due to urgency of work, in few cases, NIT was floated before TS and in no case, work order was issued before TS. The reply was not tenable, as the observations were made based on basic records of the department. The adverse consequences of tendering process before accordance of TS are discussed in the succeeding paragraph.

2.2.7.2.1 Damages in constructed bridges

Work order of RCC Bridge No. 16/1 on Dotoma to Jogdoi Musalmanpara Road in Kokrajhar Rural Road Division was issued (October 2012) at ₹ 1.67 crore before accordance of TS (January 2013). It was seen that the DPR of the bridge included protection work with boulder apron at both sides of the approach road adjacent to bridge proper at ₹ 9.54 lakh.

However, in the tendered Bill of Quantities (BoQ), agreed with the contractor, the protection work was not included. As such, the TS (January 2013) was also accorded as per the BoQ curtailing the provision of protection works. The work was completed (December 2017) without executing the protection work. During site visit (June 2018), breaches at both sides of the bridge proper were noticed. The division accepted that breaches occurred due to non-execution of the protection work.

Similarly, in the tendered Bill of Quantities (BoQ) for a RCC Bridge²² at ₹ 1.01 crore in Silchar Rural Road Division did not include the items of protection works though the DPR included protection work with boulder apron at both sides of the bridge proper at a cost of ₹ 22.31 lakh. PNIT for the work was issued (November 2013) and work order was issued (28 February 2014) before accordance of TS (28 February 2014). In this case also, TS was accorded as per BoQ excluding the protection work. The work was completed in May 2015 and similar breach was noticed during site



Embankment Failure of RCC Bridge No. 16/1 on Dotoma to JogdoiMusalmanpara road. (Photograph Taken on 3 June 2018)



End of the bridge proper at Silchar side of RCC Br. At 7th Km of Kathal Road over river Gagrah. (Photograph Taken on 12 July 2018)

²² At 7th Km of Kathal Road over river Gagrah including approaches and protection work.

visit (July 2018) by Audit due to non-execution of the protection work.

Thus, the CE, PWRD curtailed the provision of boulder apron for consistency with NIT already issued which resulted in breaches after completion of work. Government may consider fixing responsibility accordingly for the lapse.

2.2.7.3 Lack of Insurance cover

As per condition No. 13 of the contract agreement, contractor shall provide before the start date, in joint names of the employer and the contractor, minimum insurance cover for physical property, injury and death at ₹ five lakh per occurrence with the number of occurrences limited to four from the start date to the end of the defect liability period.

In all the 76 selected projects, the contractors had not provided insurance cover in any of the projects for no recorded reason. Non-implementation of the clause of insurance was fraught with the risk of loss of physical property and human casualties and also would deny the benefit of insurance coverage in case of mishap.

2.2.7.4 Doubtful expenditure

One road²³ work with 14 km. length in Haflong Roads and Bridges Division was awarded (October 2014) at ₹ nine crore. During the time of starting the execution, the contractor found that the condition of the road pavement had deteriorated much more than the provision in the estimate. This was due to effect of monsoon on the already depressed/pot hole portion and new formation of depression for 20 to 50 m length covering the entire road width. A working estimate was prepared (August 2015) by reducing the length from 14 km to 12.5 km with incorporation of heavy dressing necessary for levelling the observed higher undulation. However, the quantities for items of water bound macadam (WBM) Grade II and III were not reduced proportionately. As such, material attributable to the reduced road length of 1.50 km for these items (14 km – 12.50 km), resulted in an excess estimation of 618.75 cum for each of the items involving an extra expenditure of ₹ 34.06 lakh.

Further, quantity for sub grade failure on the existing road surface was considered twice in case of two item of works viz., (i) sub-grade and earthen shoulder and (ii) WBM-III in the working estimate for new construction. This had led to excess provision of ₹ 16.72 lakh for sub grade failure resulting in extra expenditure.

The actual execution against expenditure of ₹ 50.78 lakh (₹ 34.06 lakh plus ₹ 16.72 lakh) discussed above could not be verified in audit due to absence of chainage-wise detailed recording in measurement books (MB). In absence of chainage-wise detailed recording, the quantum of the work executed at different chainages indicating length, breadth and thickness against the estimated provision

²³ Improvement of Lanka Garampani (LG) Road, estimated cost of ₹ 10.00 crore.

could not be ascertained. Thus, the extra expenditure of ₹ 50.78 lakh²⁴ (as stated in the foregoing paragraph) appeared to be doubtful. The responsibility for preparation of faulty estimate lies with the EE concerned. The EE also overlooked the recording in the MB by the site engineer while passing the bill. Government may consider fixing responsibility accordingly for the lapse.

2.2.7.5 Extra estimation and expenditure of ₹ 2.58 crore on Steel Truss

In terms of Rule 248 of AFR, to facilitate the preparation of estimates, Schedule of Rates (SoR) of each kind of work commonly executed should be kept in each Division and the estimated rates should generally agree with the SoR.

The estimated value of bridge proper with Pre Stressed Concrete (PSC) Girder in the work construction of a road²⁵ was ₹ 13.05 crore (prepared on the basis of SoR 2009-10) and the tendered value of the bridge proper was ₹ 12.82 crore. During execution of the road including the bridge, CE approved a working estimate with cost of bridge as ₹ 14.42 crore. In the working estimate, the superstructure of the bridge was changed from PSC Girder (₹ 6.72 crore) to Built Up Girder (BUG) (₹ 8.32 crore) with the provision of structural steel of 524.98 MT at an analysed rate of ₹ 1,31,590.12 per MT.

Though SoR of 2009-10 had the complete rate for item of structural steel²⁶ as ₹ 64,235 per MT, the division analysed (May 2012) the rates of the item at ₹ 1,31,590.12 per MT and awarded the rate to the contractor leaving no scope to arrive at a competitive rate. The analysed rate was not only higher than the rate of SoR 2009-10 but also exceeded the scheduled rate of ₹ 82,517 per MT in the subsequent SoR of 2011-12 (valid up to May 2013).

Thus, in comparison with the rate of SoR 2011-12, the Department incurred an extra expenditure of ₹ 2.58 crore²⁷. The extra expenditure was attributable to non-adherence to AFR in analysing the rate of structural steel during preparation of the DPR. During Exit Meeting (December 2018), the CE accepted that analysis of rate was not required in the use of latest SoR. Further, in reply PWRD stated (March 2019) that the steel of BUG structure were to be imported from outside Assam and hence analysed at higher value including carriage and painting but the fact remains that changing the item of work during the execution of the project leaves no scope to arrive at a competitive price.

²⁴ ₹ 34.06 lakh plus ₹ 16.72 lakh

²⁵ Abhaypuri to Pulibor via Halmira including construction of RCC Bridge No. ¾ over River Dhansiri under RIDF-XVI in Golaghat Rural Road Division.

²⁶ 'Providing and launching Steel Truss of Structural Steel BUG Superstructure including painting complete' as per Section 1900 of the Ministry of Surface Transport (MoST) specification

²⁷

| Tendered rate (₹) | Rate of SoR 2011-12 (₹) | Difference (₹) | Executed quantity (MT) | Amount involved (₹) |
|-------------------|-------------------------|----------------|------------------------|---------------------|
| 1,31,590 | 82,517 | 49,073 | 524.98 | 2,57,62,344 |

Government may consider fixing responsibility on the concerned EE of the division and CE for the irregularity.

2.2.7.6 Inflated measurement against short execution worth ₹ 1.56 crore

In four selected road projects, the estimated length of 53.97 km was to be constructed under RIDF. As per the drawings attached to the DPRs in all cases, the roads were to be constructed in a continuous stretch without any diversion. Further, as per the completion certificates, the entire road length was recorded as constructed.

During joint site visit (April-August 2018), it was however, observed that only 51.84 km of road length was found actually executed though payment was made for length of 53.97 km. This had resulted in short execution of 2.13 km of road length (*Appendix 2.6*) involving payment of ₹ 1.56 crore being the cost of 2.13 km of road which was not constructed. This further highlighted that project completion certificates were issued by the EEs without assessing the actual execution pointing towards inflated measurement in Measurement Book (MB).

In case of three roads²⁸, the Department replied (March 2019) that the short execution pointed out by audit had been constructed along another road diverting from the proposed road. However, the reply was not in keeping with the drawings attached to the DPRs, which showed that the roads were to be constructed in a continuous stretch without any diversion.

The site Engineers and EE were collectively responsible for showing such overstated length of road in the MB and completion certificate. Government may consider for fixing responsibility accordingly for the lapse.

Recommendation: Government needs to ensure preparation of DPRs by assessing the site condition, adhering to extant codal provisions and Schedule of Rates applicable in the State. The EE should have a close vigil on accuracy of measurement taken at site. Government may also consider fixing responsibility on erring officials for lapses like inflated estimate and measurement.

2.2.8 Quality Control and Monitoring

2.2.8.1 Defects in Quality Control mechanism

As per RIDF Handbook of NABARD, the State Government shall ensure that the technical personnel and well equipped laboratory system are available for exercising effective quality control and periodical appraisal of the quality control data shall be made not only for implementation during construction, but also for effective possible improvement in quality control and construction techniques. Details of the quality tests, frequency, the methods of rectifying defects, etc. were

²⁸ (i) Dhodang Kurighoria to Batiporia Chariali then to Jelmoni Ali via Nahoroni Majgaon Kurighoria and Batiporia Madrasa, (ii) Rojabari Lakhmipathar Road and (iii) Samukjan Road.

to be followed as per IRC SP-11 “Handbook of Quality Control for Construction of Roads and Runways”.

As per IRC Norms, the CE is the overall in charge of quality control. The Director (not below the rank of S.E) is to be the Head of quality control, where Central Laboratory exists at Head Quarter and Regional Laboratories are to be headed by Executive Engineer (Quality Control), who would deal with specific cases, training of staff etc.

A Quality Control system existed in the department, monitored by the concerned Superintending Engineer (SE)/ EE. Although, CE, PWRD stated (August 2018) that the contractors prepared Quality Assurance Plan duly approved by CE, properly documented and updated regularly, none of these records was made available to Audit. As such, the reply was not based on any record and effectiveness of the existing quality control system could not be assessed.

The department had its own Regional Research Laboratory and Training Institute (RRLTI) at Guwahati. Required tests were conducted by RRLTI on the basis of samples from the department/contractors. But, the projects for which the samples pertain were not available in RRLTI. The executing divisions did not convey the project details to RRLTI, though it was sought for. The details of test conducted in RRLTI viz., name of project of the tested samples, number of samples tested, dates on which test conducted etc., were not produced to audit. Further, RRLTI did not specify the tests conducted on samples. As such, Audit could not ascertain functioning of RRLTI and tests actually conducted to ensure the quality aspects.

Tests conducted in RRLTI should have details of tested samples like name of the project, type of sample, date of testing and overall certificate on the quality of the tested sample but these details were not available in the records.

2.2.8.2 Role of High Powered Committee (HPC)

As per RIDF Guidelines, the State Government was required to constitute a High Powered Committee (HPC) under the Chairmanship of the Chief Secretary of the State Government comprising of Heads of all implementing departments and NABARD to review the progress of the project at quarterly intervals. During 2013-18, HPC met twice a year against the RIDF Guideline recommendation of four times a year.

The minutes of the HPC revealed that the Committee reviewed only the financial aspects but did not stress upon any monitoring mechanism for quality assurance and effectiveness of the projects.

The concerned Divisions related to the selected projects could not produce any record regarding constitution of the District Level Review Committee (DLRC) to review the progress of the projects at district level. As a result, implemented projects were not reviewed for any required corrective measures.

2.2.8.3 Uploading of data in e-portal

To save time and cost, faster allotment of works and to monitor the projects online, GoA made (November 2017) it mandatory for all the Divisions to upload all ongoing works, keep updating status of progress, monitoring report, photographs of completed projects and all important documents including NIT etc., by 31 May 2018 in departmental e-portal²⁹. It was observed that out of 220 ongoing projects implemented through 13 selected Divisions (except Maibong Road Division), the data for only 73 (33 per cent) projects were uploaded. Again, out of 73 projects for which data was uploaded in the portal, DPR for only three projects, NIT for only four projects and monitoring reports for only 11 projects were uploaded. As such, the e-portal was not presenting comprehensive information to stakeholders. In absence of requisite data in the portal, the objective of setting up an e-portal was defeated.

In reply, the Department stated (March 2019) that uploading of data in e-portal by respective Divisions was in progress.

Recommendation: Government may initiate steps for conducting periodic review and monitoring by the designated committees at various levels to ensure the quality of projects.

2.2.9 Follow up of the recommendations of the previous Audit Report

Review of NABARD assisted rural road and bridge projects in Assam covering the period 1998-2003 had featured in the Audit Report (AR) of the Comptroller and Auditor General of India of the GoA (Civil) for the year ending 31 March 2003, wherein the following recommendations were made:

- The Department should ensure proper budgetary and expenditure control system to improve performance and control over expenditure.
- Ongoing schemes should be completed on priority basis instead of taking up new schemes with limited resources.
- Part payment through hand receipts must be discontinued forthwith.
- Codal provisions are to be adhered to for efficient execution of different works.
- Internal monitoring system of the Department should be effectively in place.

As of August 2018, the said report was yet to be discussed by the Public Accounts Committee (PAC) of the State. Further, no Action Taken Note (ATN) on the Review was received (August 2018) from the Department. Present Performance Audit revealed that except for discontinuation of part payment through 'hand receipts', no significant improvement had been achieved on other recommendations.

²⁹ <https://www.apwd.in>.

2.2.10 Conclusion

The objective of providing the rural connectivity through RIDF in Assam during 2013-18 was partially achieved. However, the criteria of economy, efficiency and effectiveness of the implemented projects were not fully achieved as depicted in the foregoing paragraphs. In absence of any Master Plan prioritizing the rural connectivity under RIDF, the projects were selected without assessing the desired criteria of rural connectivity under RIDF. The projects eligible under PMGSY as well as ineligible projects on State Highways were also considered under RIDF, burdening the State's exchequer with interest bearing loan. The faulty survey and investigation to prepare the DPRs had resulted in inflation in the estimates with higher liability of loan amount and necessitated preparation of working estimates with change in scope of works. The concept of tendering and issuing work orders prior to technical sanction and non-adherence to the extant SoRs and IRC specification adversely affected the quality of execution and culminated with excess expenditure on selected projects. The provision of ICBP works without side drain instead of black top roads also compromised the riding quality of the constructed roads. The monitoring and review was found inadequate to ensure quality of projects.

2.2.11 Summary of Recommendations

The Government may ensure that:

- *the Master Plan and Priority list for undertaking the projects are prepared to avoid inclusion of inadmissible projects and to reduce extra burden on scarce Public exchequer in the form of interest;*
- *DPRs are prepared after proper survey and investigation and based on the extant SoR to avoid extra financial commitment;*
- *administrative approval and technical sanction are accorded timely based on realistic estimates to avoid subsequent change in scope of work after tendering and to elicit bid in more transparent manner;*
- *periodic review and monitoring by the designated committees at various levels.*

Compliance Audit

Public Works (Roads) Department

2.3.1 Avoidable expenditure

Executive Engineers, Karimganj and Dhubri Rural Road Divisions paid ₹ 8.83 crore towards interest against the supply of materials worth ₹ 0.47 crore due to delay in making payment which could have been avoided.

Executive Engineers (EEs), Karimganj and Dhubri Rural Road Divisions received supply³⁰ of RCC span pipes worth ₹ 0.47 crore from two suppliers during the period between August 1990 and October 1996 respectively. The Divisions, however, could pay ₹ 0.23 crore only against the total supply for ₹ 0.47 crore on different dates as shown below:

(₹ in lakh)

| Sl. No. | Name of the division | Name of supplier | Bill value as per suppliers bill | Date of supply | Amount paid | Date of payment | Balance amount |
|--------------|--------------------------------|--|----------------------------------|------------------------------|--------------|-----------------------------|----------------|
| 1. | Karimganj Rural Roads Division | M/s Eastern Concrete Industries, Cachar, Assam | 12.26 | August 1990 to December 1991 | 8.79 | April 1991 to February 1994 | 3.47 |
| | | | 4.75 | March 1995 to October 1995 | Nil | - | 4.75 |
| 2. | Dhubri Rural Roads Division | M/s Green Valley Industries, Tezpur, Assam | 30.05 | August 1996 to October 1996 | 14.59 | March 1997 to January 2002 | 15.46 |
| Total | | | 47.06 | | 23.38 | | 23.68 |

Since the Divisions did not pay the full amount and due to inordinate delay in payment, three Court cases³¹ were filed by the aggrieved suppliers. The delay was attributed to non-availability of fund.

In respect of Karimganj Rural Road Division, Hon'ble High Court passed two orders³² (July 1996 and May 2003) to make payment with 21 per cent and 22 per cent compound interest till full realisation of the amount for balance of ₹ 3.47 lakh and ₹ 4.75 lakh respectively. The amounts kept on increasing day by day due to non-release of the full amount. The Division could pay a sum of ₹ 0.27 crore (February 2004 to March 2012) and ₹ 0.13 crore (February 2012) only against the payable amount of ₹ 1.08 crore and ₹ 0.66 crore respectively in respect of the above mentioned two verdicts. Finally, in January 2017, the two cases were withdrawn after making payment of an agreed amount of ₹ five crore³³ (December 2016) for both the cases. Thus, there was an extra payment of ₹ 5.32 crore³⁴.

³⁰ Copies of administrative approval, financial sanction for the procurement were not found on record. Supply orders were issued by Chief Engineer, PWD (Road) Assam. Copies of supply order in respect of Dhubri Division only were found on record.

³¹ (i) Money Suit (MS) No. 19 of 1995 for bill value of ₹ 12.26 lakh, (ii) MS No. 9 of 1999 for bill value of ₹ 4.75 lakh and (iii) Writ Petition (C) 7343 of 2002 for bill value of ₹ 30.05 lakh.

³² July 1996 for MS No. 19 of 1995 and in May 2003 for MS No.9 of 1999.

³³ ₹ 4.00 crore and ₹ 1.00 crore for MS No. 19 of 1995 and MS No.9 of 1999 respectively.

³⁴ ₹ 0.13 crore and ₹ 0.27 crore added to ₹ 5.00 crore less ₹ 3.47 lakh and ₹ 4.75 lakh.

In respect of Dhubri Rural Road Division, the Hon'ble High Court passed an order (March 2004) to pay ₹ 15.40 lakh within six months from the date of receipt of the order failing which unpaid amount would carry six *per cent* interest per annum. But the Division failed to pay the amount within the date and made payment of ₹ 15.40 lakh on various dates w.e.f. 23 March 2006 to 12 July 2010. Finally, the supplier was paid (March 2017) ₹ 3.51 crore on account of interest as per Court verdict (March 2016). Thus there was an extra payment of ₹ 3.51 crore³⁵ beyond the original due amount.

Therefore, the two divisions made an extra payment of ₹ 8.83 crore due to delay in payment which could have been avoided.

Further, though reasons for delay in payment was stated to be non-availability of fund, savings of substantial amount ranging from ₹ 81.65 crore to ₹ 1,908.88 crore were noticed under the Grants No.64 "Roads and Bridges" during the years 2000-2016. This indicated the laxity of the Department to assess the gravity of the matter and failure to release the amount in time resulted in huge financial burden on State exchequer.

The matter was reported (August 2018) to Government and discussed in a meeting (December 2018). The Government replied (December 2018) that the payment could not be made in time to the suppliers due to insufficient budget provision against huge pending liabilities under the relevant Head of Account (Non-plan). Further, the major portion of the budget allocation was project specific and non-transferable to other head despite there was savings. The reply was not tenable because of the following:

- i. Budget Manual (Assam) provides for re-appropriation of savings from one unit of appropriation to meet additional expenditure under another unit within the same Grant.
- ii. Delay in taking prompt action by the Department to comply with the Hon'ble Court's orders to release payments in stipulated duration led to mounting of interest.

CE, PWD (Roads) issued supply order without ensuring budget provision. Further, the Commissioner & Special Secretary, GoA, PWD did not sanction the required fund to clear the liabilities which was increasing day by day. Thus, due to lack of proper attention to assess the gravity of the matter, Government had to bear extra financial burden. Government may consider for fixing responsibility accordingly for the lapses to avoid this sort of irregularities in future.

³⁵ Interest paid of ₹ 3.51 crore added to ₹ 15.40 lakh repayment less the original due amount of ₹ 15.46 lakh

2.3.2 Extra expenditure

Executive Engineer, Nalbari Rural Road Division incurred an extra expenditure of ₹ 1.12 crore with creation of additional liability of ₹ 1.37 crore by inflating the estimate.

In terms of Rule 248 of Assam Financial Rules, to facilitate the preparation of estimates, a schedule of rates (SoR) of each kind of work commonly executed should be kept in each Division and the estimated rates should generally agree with the SoR.

Government of Assam (GoA) accorded (March 2014) Administrative Approval (AA) to the work of Construction of Metalling & Blacktopping, BM³⁶, SDBC³⁷ Road from Samata Higher Secondary School Belsor Rangaman Jamartal via Rupiabathan to Samata Girls High School with culverts for ₹ 21.76 crore. The Chief Engineer (CE) awarded (March 2014) the work to a contractor³⁸ at a tendered value of ₹ 22.16 crore with stipulation to complete the work by March 2016.

Audit observed the following: -

1. Scope of work was changed by converting the construction work from metalling and blacktopping into Interlocking Concrete Block Pavement (ICBP) for ₹ 11.15 crore, and the work was assigned to the same contractor without inviting rates through open bidding;
2. Department stated that the change was made based on the recommendation of the then Minister of Agriculture & Parliamentary Affairs, Assam;
3. Department ignored the extant SoR (2013-14) for ICBP item, which was at the rate of ₹ 812 per Sqm inclusive of the item Cement Concrete (CC) Edge Block. Instead, it adopted outdated SoR for 2011-12 @ ₹ 879 per Sqm, and added the cost of ₹ 329.97 per Rm for CC Edge Block. Due to this, the contractor was given an excess undue advantage of ₹ 2.49³⁹ crore.

The matter was reported to Government in June 2018 and also discussed in December 2018. In reply, the Government stated (December 2018) that though

³⁶ Bituminous Macadam.

³⁷ Semi dense Bituminous Concrete.

³⁸ M/s PrabhuAgarwalla Construction Pvt. Ltd.

³⁹

| Items | Unit | Rate of SoR 2013-14 (₹) | Rate of SoR 2011-12 (₹) | Rate allotted (₹) | Excess rate allowed (₹) | Quantity as per tender | Quantity already executed | Total Extra cost (₹) | Extra expenditure (₹) | Committed liability (₹) | Remarks |
|---------------|------|-----------------------------------|-------------------------|---------------------|-------------------------|------------------------|---------------------------|----------------------|-----------------------|-------------------------|--|
| A | B | C | D | E | F (E-C) | G | H | I (F x G) | J (F x H) | K (I - J) | |
| ICBP | Sqm | 812 | 879 | 879 (Basic rate) | 67 | 96,285 | 43,237.50 | 64,51,095 | 28,96,913 | 35,54,182 | Calculated based on basic rate excluding haulage and loading/unloading charge. |
| CC Edge Block | Rm | Rate is included in the rate ICBP | N/A | 329.97 | 329.97 | 56,000 | 25,300 | 1,84,78,320 | 83,48,241 | 1,01,30,079 | - |
| Total | | | | | | | | 2,49,29,415 | 1,12,45,154 | 1,36,84,261 | |

the estimate was prepared adopting the SoR 2013-14, the items relating to ICBP and CC Edge Block had to be taken from the SoR 2011-12 as there is contradiction between specification of this item in SoR for 2013-14 of APWD and clause 1504 of MoRD specification. It was further stated that the specification of the said items in SoR for 2011-12 of APWD was perfectly matched with MoRD clause 1504.

The reply, however, was not acceptable in view of the following:-

We find that the item specifications in both the SoRs for 2011-12 and 2013-14 had been prepared in keeping with clause 1504 of MoRD specifications, with the only difference being the treatment for the CC Edge Block. The SoR for 2013-14 required that the cost of the item was inclusive of the Edge Block. At the time of the execution, SoR 2013-14 was in force. Selecting SoR of 2011-12 in place of SoR of 2013-14 to determine the amount to be paid to the contractor, without eliciting any bids, directly led to a higher amount for execution of the work.

As a result, the amount payable for execution of this work was inflated by ₹ 2.49 crore due to adoption of higher rate for supplementary item of ICBP and irregular inclusion of extra cost of CC Edge Block. The division paid (March 2018) extra ₹ 1.12 crore leaving a balance liability of ₹ 1.37 crore payable to the contractor.

The EE, Nalbari Rural Road Division was primarily responsible for preparation of inflated estimates and the CE also overlooked the matter while according TS to the estimates. Further, there was no scope for obtaining competitive price for the supplementary works due to settlement of rates with the same contractor without calling fresh tender. This resulted in extra expenditure for the GoA and undue benefit to the contractor of ₹ 2.49 crore. Government may fix responsibility in the matter and take corrective measures for preventing such serious irregularities in future.

2.3.3 Undue favour to contractor and cost overrun

Chief Engineer (ARIASP & RIDF) paid recoverable amount of ₹ 1.40 crore on account of excess payment to the contractor for the work of improvement of State Highway-46. Besides Mobilisation Advance of ₹ 8.18 crore out of ₹ 11.57 crore was yet to be recovered. Further, re-allotment of balance work had resulted in a cost overrun of ₹ 0.85 crore.

The work of Improvement and Up-gradation of State Highway-46⁴⁰ approved at ₹ 171.97 crore was awarded (5 April 2013) to a contractor⁴¹ at the lowest tendered rate of ₹ 115.67 crore with the stipulation to complete the work within 36 months (*i.e.*, by April 2016). The contractor, failed to complete the work within the stipulated date even after allowing extension up to October 2016 and could achieve only 16.62 *per cent* physical progress as of December 2016. Finally, the

⁴⁰ Dudhnoi-Goalpara-Pancharatna(41.170 Km)

⁴¹ M/s DRA-Brahmaputra Infrastructure Ltd. (JV).

Chief Engineer (CE) (ARIASP & RIDF)⁴² terminated (January 2017) the contract due to slow progress of the work. Prior to the termination, the contractor had filed (November 2016) a case in the Court and obtained a restraint against encashment of bank guarantee by the department. The contractor was paid (August 2016) ₹ 23.66 crore⁴³ including mobilization advances (MA) (₹ 11.57 crore) and other adjustments. While MA of ₹ 3.38 crore was recovered from the contractor, the balance amount of ₹ 8.19 crore could not be recovered awaiting Court's verdict on the restraint order obtained by the contractor.

In this regard, Audit observed that the CE extended undue favour to the contractor as discussed below:

1. After termination and filing of Court case by the contractor, the work was re-measured (June 2017) and a final bill (IPC-17) was prepared indicating recovery of ₹ 1.62 crore (after adjustment) from the contractor. The up to date value of work done on re-measurement worked out to ₹ 14.03 crore against the paid amount of ₹ 15.86 crore through the previous bill. After other adjustments, the excess payment of ₹ 1.40 crore⁴⁴ remained unrecovered till August 2018.
2. The bid document provided for interest-free MA, and the contractor was paid MA (interest free) of ₹ 11.57 crore⁴⁵. Despite slow progress of work (one *per cent* achieved after expiry of one year), the 2nd instalment of MA was released violating the contract condition which had linked the release of 2nd instalment to work progress.

Further, the balance work was awarded (June and August 2017) to four contractors at a total tendered value of ₹ 158.79 crore. Thus, total cost involvement of the project stood ₹ 172.82 crore (₹ 158.79 crore *plus* ₹ 14.03 crore) resulting in cost escalation of ₹ 0.85 crore (₹ 172.82 crore *minus* ₹ 171.97 crore) against the original approved amount of ₹ 171.97 crore. Three (out of four) works were in progress and one work had not been commenced (December 2018).

From the above, it was evident that there was recoverable amount of ₹ 1.40 crore on account of extra payment, ₹ 8.19 crore on account of MA. Further, re-allotment of balance work had resulted in cost escalation of ₹ 0.85 crore over the approved cost.

The CE (ARIASP & RIDF) stated (September 2017) that delay was attributed to the contractor owing to his non-performance of obligation as provided in the contract agreement.

⁴² ARIASP: Assam Rural Infrastructure and Agricultural Services Project.
RIDF: Rural Infrastructure Development Fund.

⁴³ Vide IPC-16, Voucher No. 25 dtd. 6 August 2016 (₹ 0.22 crore was not paid against bill value of ₹ 23.88 crore).

⁴⁴ ₹ 0.22 crore was not paid against IPC 16, which was not shown in IPC 17, hence, recoverable amount is ₹ 1.40 crore (₹ 1.62 crore *minus* ₹ 0.22 crore).

⁴⁵ MA was paid in two equal instalments *viz.*, 1st instalment on 26 April 2013 and 2nd instalment on 19 March 2014.

On this being pointed out, the Government stated (December 2018) that recovery of excess payment of ₹ 1.40 crore would be made from the Performance Security and the extra cost to be incurred by the employer had been claimed as counter claim before the Arbitral Tribunal.

Thus, based on incorrect MB certified by the Executive Engineer of CE (ARIASP & RIDF)'s office, the excess payment of ₹ 1.40 crore was made to the contractor. The CE paid 2nd instalment of MA despite slow progress of work in violation of contract agreement. Government may consider fixing responsibility on EE for certifying incorrect MB and on CE for violation of contract agreement.

2.3.4 Unfruitful expenditure

Executive Engineer, PWD (Roads) took up construction of road from Khanapara to Guwahati Airport without ensuring land availability and without obtaining the clearance certificate from Central Government for use of forest land, due to which the project work remained incomplete for five years rendering the expenditure of ₹ 44.54 crore unfruitful.

Rule 304 of Assam Public Works Department (APWD) Manual, 1983 provides that no work should be commenced on land the possession of which has not been duly delivered by responsible civil (revenue) authorities. Further, Section 2 of Forest Conservation Act, 1980 amended in 1988, imposed restriction on the dereservation of forests or use of forest land for non-forest purpose without the prior approval of the Central Government.

Government of Assam (GoA) accorded Administrative Approvals (AAs) (February 2009 - March 2013) to the work 'construction of an alternative road from Khanapara (Koinadhara) to Lokpriya Gopinath Bordoloi International (LGBI) Airport in four phases (Phase I to IV) at an estimated cost of ₹ 80.20 crore. The Chief Engineer (CE) PWD (Roads) accorded Technical sanctions (TS) to the different phases of the work between February 2009 and May 2013 and awarded the civil works to four different contractors at a total tendered cost of ₹ 67.29 crore with the stipulation to complete the works between June 2012 and October 2015.

We observed (October – November 2017) that in the detailed project report (DPR), approximately 13.22 acres of private land and 20.126 acres of Government land were proposed to be acquired. Although part of the road was to pass through forest area, it was laid down that acquisition of forest land was not required and that Right of Way was sufficient for construction. As such, requirement of clearance certificate from GoI for use of forest land was not mentioned in the DPR which appeared to be misleading at later stage.

The following lapses were observed in planning and execution of the project work:

- 6.35 hectare (15.69 acre) of forest land falling under the project had not been accorded forest clearance.

- GoA at a later stage (May 2013) submitted a proposal to the Ministry of Environment and Forests (MoEF), Government of India (GoI) for diversion of the said portion of forest land measuring 6.35 Ha (2.84 Ha in Garbhanga Reserve Forest and 3.51 Ha in Rani Forest).
- MoEF rejected (17 February 2014) the proposal due to non-submission of essential information⁴⁶ by the State.

Out of four Phases (I to IV), Phase III and Phase IV remained incomplete⁴⁷ (since December 2013) with 58 per cent and 37 per cent physical progress due to want of forest clearance.

Thus, the project work was commenced without ensuring the availability of land and the DPR was prepared without stating the requirement for acquisition of forest land and the associated prior approval of Central Government for use of forest land and other matters relating to forest and environmental clearances.

As a result, the project work remained incomplete and could not be put to use for which it was taken up and an expenditure of ₹ 44.54 crore⁴⁸ (including payable liability of ₹ 1.93 crore) incurred towards the project remained idle.

On this being pointed out, while accepting the audit contention, the Government stated (December 2018) that the work was started in anticipation of getting the clearance certificate from the Forest Department in due course of time and a total of 15 Km road has been completed in all respects and opened for vehicular traffic. It was, however, observed that though there was partial utilisation of the road but the intended objective of providing the alternate road from Khanapara (Koinadhara) to LGBI Airport to ease the traffic congestion along NH-37 remained unfulfilled (December 2018). The Executive Engineer, Guwahati Road Division was primarily responsible for preparation of wrong DPR by incorrectly assessing the requirement relating to acquisition of forest land and the need for obtaining forest and environmental clearances from Central Government. The CE also overlooked this matter while according TS to the estimates. Government may consider fixing responsibility accordingly for the lapses to avoid this kind of improper planning in future projects.

⁴⁶ Certificate from the Chief Secretary for non-availability of non-forest land, comments of Chief Wildlife Warden and consent of the NBWL etc.

⁴⁷ Phase-I and Phase-II were completed in December 2013 and September 2015 respectively.

⁴⁸

(₹ in crore)

| Phase | Expenditure on construction of road as of November 2017 | | Expenditure on utility shifting as of November 2017 | | Total including liability |
|--------------|---|-----------|---|-----------|---------------------------|
| | Amount paid | Liability | Amount paid | Liability | |
| Ph-I | 4.51 | Nil | 2.27 | 0.17 | 6.95 |
| Ph-II | 16.77 | 0.15 | Nil | Nil | 16.92 |
| Ph-III | 13.75 | Nil | Nil | Nil | 13.75 |
| Ph-IV | 5.31 | 1.61 | Nil | Nil | 6.92 |
| Total | | | | | 44.54 |