Report of the
Comptroller and Auditor General of India
on
Public Sector Undertakings

for the year ended March 2017

Government of Karnataka

Report No. 3 of the year 2018

Table of contents

Preface

This report deals with the results of audit of Government Companies, Statutory Corporations and Departmental Commercial Undertakings for the year ended March 2017.

The accounts of the Government Companies (including companies deemed to be government companies as per the provisions of the Companies Act) are audited by the Comptroller and Auditor General of India (CAG) under the provisions of Section 619 of the Companies Act, 1956, and Sections 139 and 143 of the Companies Act, 2013. The accounts, certified by the Statutory Auditors (Chartered Accountants) appointed by the CAG under the Companies Act, are subject to supplementary audit by the officers of the CAG and the CAG gives his comments or supplements the reports of the Statutory Auditors. In addition, these companies are also subject to test audit by the CAG.

The Reports in relation to the accounts of a Government Company or Corporation are submitted to the Government by the CAG for laying before the State Legislature of Karnataka under the provisions of Section 19A of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971.

CAG also conducts the audit of accounts of the State Road Transport Corporations, State Warehousing Corporation and State Finance Corporation as per their respective Legislations.

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

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

Overview

Overview

1. Overview of Government Companies and Statutory Corporations

Audit of Government Companies is governed by Sections 139 and 143 of the Companies Act, 2013 (Act). The accounts of Government Companies are audited by Statutory Auditors appointed by the Comptroller and Auditor General of India (CAG). These accounts are also subject to supplementary audit by the CAG. Audit of Statutory Corporations is governed by their respective legislations. As on 31 March 2017, the State of Karnataka had 90 working Public Sector Undertakings-PSUs (84 Companies and 6 Statutory Corporations) and 12 non-working PSUs (all Companies), which employed 1.76 lakh employees. The State PSUs registered a turnover of ₹ 56,478 crore during the year 2016-17 as per their latest finalised accounts. This turnover was equal to 5.05 *per cent* of the State Gross Domestic Product indicating the important role played by the PSUs in the economy. The PSUs had accumulated profit of ₹ 299.26 crore as per their latest finalised accounts.

Investments in PSUs

As on 31 March 2017, the investment (capital and long-term loans) in 102 PSUs was ₹ 1,03,717.40 crore. Infrastructure Sector accounted for about 51.64 *per cent* of the total investment and Power Sector about 40.68 *per cent* in 2016-17. The Government contributed ₹ 23,115.41 crore towards equity, loans and grants/subsidies in 2016-17.

Performance of PSUs

The Return on Capital Employed of the PSUs, for 2016-17, worked out to 4.92 *per cent* and the Return on Equity, however, was (-) 0.08 *per cent*.

The working State PSUs earned a profit of ₹ 1,420.49 crore in the aggregate and incurred loss of ₹ 1,265.37 crore as per their latest finalised accounts at the end of September 2017. The major contributor to profit was Karnataka Rural Infrastructure Development Corporation Limited (₹ 109.88 crore). Huge losses were incurred by Karnataka Neeravari Nigam Limited (₹ 476.88 crore), Hubli Electricity Supply Company Limited (₹ 372.73 crore) and Gulbarga Electricity Supply Company Limited (₹ 131.25 crore).

Audit observed various deficiencies in the functioning of the PSUs. Cases discussed in the subsequent Chapters of this Report indicate that there was a financial effect of ₹ 1,685.38 crore. The losses could have been minimised or profits enhanced substantially with better management. There is a need for greater professionalism and accountability in the functioning of the PSUs.

Quality of accounts

The quality of accounts of working Government companies needs improvement. During the year, out of 66 accounts finalised, the Statutory Auditors gave unqualified reports on 19 accounts, qualified reports on 45 accounts, adverse reports (which means that the accounts did not reflect a true and fair view) for one accounts and disclaimer report (which means that auditor could not form an opinion on the accounts) on one accounts. The compliance with the Accounting Standards by companies remained poor as there were 79 instances of non-compliance in 27 accounts during the year.

Arrears in accounts and winding up

Fifty nine working PSUs had arrears of 75 accounts at the end of September 2017. The arrears pertained to the years 2013-14, 2014-15, 2015-16 and 2016-17. There were 12 non-working PSUs including five under liquidation. The Government may take a decision on the revival or closure of these non-working Companies.

2. Performance Audits relating to Government Companies

The Report includes observations emanating from the Performance Audits on the **'The Performance of Raichur Thermal Power Station Unit-8 of Karnataka Power Corporation Limited'** and **'Implementation of Projects by Cauvery Neeravari Nigama Limited'.** The Executive summaries of the audit findings are given below:

- **Performance Audit on 'The Performance of Raichur Thermal Power Station Unit-8 of Karnataka Power Corporation Limited'.**

Introduction

Karnataka Power Corporation Limited (KPCL; hereinafter referred to as the Company) was incorporated (July 1970) as a wholly owned State Government Company, with the main objective of planning, promoting and organising development of power including construction, generation and maintenance of power stations in the State. In pursuit of these objectives, the Company commissioned (1985-2002), a coal based thermal power station at Raichur with seven units of 210 Mega Watt (MW) each. Besides, Hydel, Solar and Wind generating stations were also commissioned by the Company over the years.

Raichur Thermal Power Station: Unit-8

The Company informed (October 2002) the Government of Karnataka (GoK) that the annual demand for power was showing an increasing trend of 9 *per cent* to 12 *per cent* and in order to meet the increasing demand, the 210 MW was to be expanded. In this backdrop, establishment of a new unit with 210 MW was approved (June 2003) by GoK for implementation by the Company at an estimated cost of ₹ 673.49 crore. Subsequently, the Board of Directors of the Company decided (August 2006) to go in for the more efficient upgraded version of 250 MW plant, considering the phasing out of 210 MW class of Turbine and Generator by the manufacturers and the continued need for technical support, spares and maintenance support during the life of the plant. The Estimated Project Cost was revised to ₹ 925 crore (August 2006), comprising mainly of Boiler, Turbine and Generator (BTG) Package, Mechanical Package, Electrical Package, Civil Package and others, including finance cost. The BTG Package was awarded (March 2007) to M/s. Bharat Heavy Electricals Limited based on approval of GoK (April 2006). The Unit was to be commissioned by September 2009. Though the Unit was synchronised in April 2010 at a cost of ₹ 1,044.57 crore, it was commissioned only in December 2010, *i.e.* after a delay of 15 months. The Company got an assurance (July 2006) from Mahanadi Coalfields Limited for supply of 10.11 lakh tonnes per annum of 'F' grade coal starting supply from 2010 and entered into an agreement for the same in March 2013.

Audit Objectives

The objectives of the Performance Audit were to assess whether:

- Operational efficiency of the Unit-8 of Raichur Thermal Power Station (RTPS) was achieved, leading to optimal output; and
- The Unit was able to keep associated environmental pollution levels within permissible limits through appropriate remedial steps.

Audit Findings

- ➢ The performance was sub-optimal during the first four years upto 2014-15 and the shortfall in generation during this period was 4,077.71 MU. (*Paragraphs 2.1.9.3, 2.1.10.1 and 2.1.10.4*)
- ➢ The loss of generation due to failure of equipment was 3,856.784 MU during the said period. (*Paragraphs 2.1.10.1 to 2.1.10.4*)
- ➢ The Management could have avoided much of the loss of generation due to failure of equipments (*viz.,* Electrostatic Precipitator, Coal Handling Plant and Air Pre-Heater) and ensured that the Unit lived upto the expectation of the State, which was reeling under severe power crisis. (*Paragraphs 2.1.10.1 to 2.1.10.4*)
- ➢ The auxiliary consumption of the Unit was above nine *per cent* till 2014-15 as against the norm of 8.5 *per cent* prescribed by Karnataka Electricity Regulatory Commission. (*Paragraph 2.1.11.1*)
- ➢ Heavy Fuel Oil (HFO), a start-up fuel, recorded very high consumption owing to repeated failure of equipment in the initial four years. (*Paragraph 2.1.11.3*)
- ➢ Consumption of coal was a big concern for the Unit as not only was the consumption very high, but there were concerns about the system of recording coal consumption, as it was not accurate. (*Paragraphs 2.1.11.4 and 2.1.11.5*)
- ➢ Consumption beyond limit not only resulted in financial loss but also impacted the environment as HFO and coal have a direct negative

effect on the environment. The excess water consumption also adversely affects water conservation policy of the Government. (*Paragraphs 2.1.11.2, 2.1.11.3 and 2.1.11.4*)

- The Unit could not achieve 100 *per cent* disposal of fly ash and did not comply with the guidelines issued by MoEF in the interest of protecting the environment. (*Paragraph 2.1.12.1*)
- The Ash Pond, meant for only bottom ash (20 *per cent* of total ash), was filled with fly ash too (in the form of slurry). That, as well as the fact that slurry from neighbouring plant (YTPS) was also proposed for disposal in the same Ash Pond, was liable to cause it to be full before its envisaged life-span, thereby endangering the neighbourhood and threating premature closure of the plant. There was no Action Plan in place to handle this crisis on a timely basis. (*Paragraph 2.1.12.1*)
- The Unit was responsible for higher Heat Rate and thus, prevented the Station from achieving Perform Achieve and Trade norms, thereby causing extra expenditure owing to purchase of Energy Saving Certificates (ESCerts) worth ₹ 107.39 crore. (*Paragraph 2.1.12.2*)
- The Stack Emission, though within the limits prescribed by KSPCB, was beyond the design of ESP. (*Paragraphs 2.1.12.3 and 2.1.12.4*)

Recommendations

The Company may consider:

1. ensuring strict compliance to operation and maintenance requirements, as recommended by the manufacturers, through a robust internal control mechanism, so that any defect noticed can be brought to the notice of the manufacturers immediately;
2. strengthening the Efficiency Section of the Unit-8, which was responsible to monitor the performance parameters;
3. reducing blow-downs to achieve the envisaged norm to reduce consumption of water;
4. ensuring that all avenues for use of ash like in building construction, road works, paint industry, *etc.* are tapped to make sure that 100 *per cent* disposal of fly ash is achieved;
5. enforcing the conditions in the ash disposal contract to ensure 100 *per cent* disposal of fly ash. This would enable the Company to overcome the crisis of Ash Pond being filled up much earlier than planned and avoid stoppage of generation in the near future; and
6. regularly monitoring the emission to ensure that emission is within the design parameters of Electrostatic Precipitator.

(Chapter 2.1)

➢ Performance Audit on 'Implementation of Projects by Cauvery Neeravari Nigama Limited'.

Introduction

The Cauvery river originates at Talakaveri in Kodagu district of Karnataka and finally flows into the Bay of Bengal. The Cauvery river basin extends over the States of Karnataka, Kerala, Tamil Nadu and the Union Territory of Puducherry. The Cauvery water-sharing dispute existed amongst these States since the 19^{th} century. The Inter-State Water Disputes Tribunal on the directions of the Hon'ble Supreme Court, in its Award (February 2007) allocated 270 tmc of water to Karnataka in a year and also specified quantum of water to each project. It also specified the area to be cultivated under each project, which totalled to 18.85 lakh acres (approx. 7,628 sq. km.). As the States did not agree to the Award of the Tribunal, they filed appeals before the Hon'ble Supreme Court, on which the final judgement was awaited (November 2017).

State Water Policy

The Government of Karnataka (GoK) formulated the State Water Policy, 2002 (SWP), for creation of irrigation potential by 2005 (target year) and construction of Field Irrigation Channels (FICs) by 2006 to achieve the ultimate irrigation potential of 45 lakh hectares (ha) in the State. The State Water Policy also emphasised Participatory Irrigation Management.

Cauvery Neeravari Nigama Limited (CNNL)

The Cauvery Neeravari Nigama Limited (Company) was incorporated in June 2003 under the Companies Act, 1956, to complete the works of and to maintain, operate, improve or modernise on-going Major and Medium Irrigation Projects including Lift Irrigation Works and Minor Irrigation and such works entrusted to the Command Area Development Authority (CADA) in the Cauvery basin.

The Company, under its jurisdiction, executes and maintains four Major Irrigation Projects, 19 Medium Irrigation Projects and 25 *Anicut* canals. It also executes works of Lift Irrigation Schemes, Drinking Water Schemes (DWS) and Restoration and Rejuvenation of rivers and tanks, and other works, which fall in the command area of the irrigation projects. Of the 18.85 lakh acres of land allowed to be cultivated under various projects, as per the Award of the Inter-State Water Disputes Tribunal, an area of 15.55 lakh acres fell in the jurisdiction of projects of the Company and the remaining 3.30 lakh acres (of the 18.85 lakh acres) fell under the jurisdiction of the Minor Irrigation Department of the Government of Karnataka.

Audit Objectives

The Audit Objectives were to assess whether:

- Proper planning was in place while taking up the projects; and

- The works were executed within the stipulated time frame and the implementation was effective in achieving the objectives set out in the Project Reports.

Out of the 19 projects selected for review, the works in respect of:

- Three projects were completed in time;
- Seven projects were completed after delays ranging from three months to four years from their scheduled date of completion;
- Seven projects are delayed upto four years from their scheduled date of completion and are yet to be completed; and
- One project, though delayed, its date of completion was yet to be due (as of November 2017) and another project was yet to be taken up.

Audit Findings

- Lacunae in planning as the Company was not preparing Zone-wise Annual Works Programmes, not having a database for selection of projects and carrying over 3,427 number of spillover works (57 *per cent* of total works) in its Annual Works Programmes. (*Paragraphs 2.2.11.2, 2.2.11.3 and 2.2.11.4*)
- Lack of priority in planning for potential oriented works and creation of Field Irrigation Channels (FICs) resulted in a total of 5,968 ha of potential oriented work and 42,400.68 ha of FICs remaining incomplete even after a lapse of more than 12 years, which should have been completed by 2005 and 2006 respectively as per State Water Policy. (*Paragraphs 2.2.11.6 and 2.2.11.7*)
- Deficiencies were noticed while preparing the estimates of the projects due to non-compliance with Karnataka Public Works Department Code. (*Paragraph 2.2.11.10*)
- Implementation of the projects suffered due to land acquisition problems, delays in approval of designs, non-synchronisation of associated works with main works and other administrative reasons, all of which were avoidable factors. (*Paragraph 2.2.12.1 to 2.2.12.4*)
- Adequate attention was not given to Inspection Reports of the Quality Control Divisions. (*Paragraph 2.2.12.6*)
- Monitoring of projects was inadequate due to lack of proper reporting system to the Board of Directors. (*Paragraph 2.2.12.7*)
- Benefits envisaged in the Project Reports of filling up of 81 tanks for providing drinking water to 310 villages, providing water to *suffering achkat* of 3,200 acres and efforts to restore and rejuvenate the Arkavathy river, were delayed and the objectives were not realised in

time. A total expenditure of ₹ 560.32 crore was incurred on this. (*Paragraph 2.2.12 and Appendix-4*)

Recommendations

1. The Company may prepare the comprehensive Annual Works Programme for effective water utilisation of Cauvery water.

2. Before taking up fresh works, the Company may prioritise completion of all the spillover works pending since many years.

3. The Company may accord greater priority in its plan documents for potential creation and Field Irrigation Canals (FIC), acquisition of land in advance and sharing information with Command Area Development Authority, so that the irrigation potential and FIC are created at the earliest.

4. The Company may take action for making payment towards land compensation, which were overdue since many years.

5. The Company may fix timeline for approval at various levels for clearance/approval of drawings, so that the process time for granting approvals is regulated.

6. The Company may ensure that the associated works are awarded in synchronisation with the main work.

7. The Company may monitor Action Taken Reports in the meetings and act upon them promptly.

(Chapter 2.2)

3. Compliance Audit Observations

The observations included in this Report highlight deficiencies in planning, investment and other activities in the management of PSUs, which resulted in financial irregularities. The observations are broadly of the following nature:

Undue favour to contractors amounting to ₹ 21.95 crore.

(Paragraph 3.1, 3.3)

Avoidable expenses amounting to ₹ 46.74 crore.

(Paragraphs 3.2, 3.4, 3.5, 3.7, 3.9, 3.11)

Unproductive investment amounting to ₹ 0.76 crore.

(Paragraph 3.10)

Miscellaneous cases amounting to ₹ 141.22 crore.

(Paragraphs 3.6, 3.8, 3.12)

Gist of some of the important audit observations are given below:

- Karnataka Neeravari Nigam Limited paid weightage of 25 *per cent* as incentive to the contractors contravening the tender conditions, unduly benefitting the contractor by ₹ 11.11 crore.

  (Paragraph 3.1)

- Karnataka Neeravari Nigam Limited did not utilise the relevant provisions of the conditions of Supply of Electricity of Distribution Licensees to reduce the contract demand during off-season and incurred additional contract demand charges of ₹ 2.11 crore. Besides, it did not monitor Power Factor and paid ₹ 1.24 crore as penalty, in addition to penalty of ₹ 0.45 crore towards delayed payment.

  (Paragraph 3.2)

- Krishna Bhagya Jala Nigam Limited paid ₹ 51.58 crore as weightage in the penultimate RA Bill instead of Final Bill and benefitted the contractor by ₹ 6.02 crore towards interest apart from making excess payment of ₹ 4.82 crore contrary to tender conditions.

  (Paragraph 3.3)

- Karnataka Road Development Corporation Limited did not hand over the land for construction of road from Kudalagi-Sandur to Torangal and from Honnali town to Honnali Taluk border and paid avoidable compensation of ₹ 35.20 crore to the contractor.

  (Paragraph 3.4)

- Karnataka Power Corporation Limited procured spares for its DG plants though it was aware that it was to switch over to Gas Plant and that environmental norms were not complied with. These spares worth ₹ 5.04 crore had to be written off.

  (Paragraph 3.5)

- The Mysore Paper Mills Limited, in view of it being referred to BIFR, shifted its operations to its Registered Office at Bhadravathi, but injudiciously retained its big office premises in Bengaluru for six of its officers/officials. This resulted in avoidable expenditure of ₹ 1.28 crore.

  (Paragraph 3.7)

- Cauvery Neeravari Nigama Limited did not avail auto-sweep facility from its bank for the funds in its current account and suffered loss of interest of ₹ 1.16 crore.

  (Paragraph 3.8)

- Karnataka State Financial Corporation did not adequately monitor implementation of its Lending Policy. There were procedural lapses exposing lack of internal control, risk of default and limitations to invoke legal recourse. The Corporation did not liquidate securities obtained as guarantee against default. The Company failed to initiate action under Section 29 and 31 of the SFC Act, 1951, and helped the borrowers escape recovery of loans.

  (Paragraph 3.12)

Chapter - I

Overview of PSUs

Chapter - I

1. Functioning of State Public Sector Undertakings

Introduction

1.1. The State Public Sector Undertakings (PSUs) in Karnataka consist of State Government Companies and Statutory Corporations. The State PSUs are established to carry out activities of commercial nature keeping in view the welfare of people and also occupy an important place in the State's economy. As on 31 March 2017, there were 102 PSUs in Karnataka. Of these, one PSU[1] was listed on the stock exchange. During the year 2016-17, nine PSUs[2] were incorporated. The details of the State PSUs in Karnataka as on 31 March 2017 are given below:

Table No.1.1: **Total number of PSUs as on 31 March 2017**

Type of PSUs	Working PSUs	Non-working PSUs[3]	Total
Government Companies[4]	84	12	96
Statutory Corporations	6	0	6
Total	**90**	**12**	**102**

The working PSUs registered a turnover of ₹ 56,478.00 crore as per their latest finalised accounts as of September 2017. This turnover was equal to 5.05 *per cent* of the State Gross Domestic Product (GDP) for 2016-17. The working PSUs earned net aggregate profit of ₹ 155.12 crore as per their latest finalised accounts as of September 2017. At the end of March 2017, the PSUs had 1.76 lakh employees.

As on 31 March 2017, there were 12 non-working PSUs existing for the last 14 years and having an investment of ₹ 544.48 crore. This was a critical area as the investments in non-working PSUs do not contribute to the economic growth of the State.

Accountability framework

1.2. The process of audit of Government Companies is governed by respective provisions of Section 619 of the Companies Act, 1956, and Sections 139 and 143 of the Companies Act, 2013 (Act). According to Section 2(45) of the Act, Government Company means any Company in which not less than fifty one

[1] The Mysore Paper Mills Limited.

[2] Invest Karnataka Forum (IKF), Tumakuru Machine Tool Park (TMTP), Vishveswaraya Jala Nigam Limited (VJNL), Hubballi Dharwad Smart City Limited (HDSCL), Belagavi Smart City Limited (BSCL), Davanagere Smart City Limited (DSCL), Shivamogga Smart City Limited (SSCL), Tumakuru Smart City Limited (TSCL) and Bangalore Bio-innovation Centre (BBC - Incorporated in April 2015 was not considered in 2015-16 Audit Report. Hence, new PSUs formed during the year is considered as nine).

[3] Non-working PSUs are those which have ceased to carry on their operations.

[4] Includes other companies referred to in Section 139(5) and 139(7) of the Companies Act, 2013.

per cent of the paid up share capital is held by the Central Government, or by any State Government or Governments, or partly by the Central Government and partly by one or more State Governments and includes a Company, which is a subsidiary Company of such Government Company.

Further, as per sub-section 7 of Section 143 of the Act, the CAG may, in case of any Company covered under sub-section (5) or sub-section (7) of Section 139, if considered necessary, by an order, cause test audit to be conducted of the accounts of such Company. The provisions of Section 19A of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971, shall apply to the report of such test audit. Thus, a Government Company or any other Company, owned or controlled, directly or indirectly, by the Central Government, or by any State Government or Governments or partly by Central Government and partly by one or more State Governments is subject to audit by the CAG. Audit of the Financial Statements of a Company in respect of the financial years that commenced on or before 31 March 2014 shall continue to be governed by the provisions of the Companies Act, 1956.

Statutory Audit

1.3. The financial statements of the Government Companies are audited by Statutory Auditors, who are appointed by the CAG as per the provisions of Sections 139(5) or 139(7) of the Act. Thereafter, a copy of the Audit Report is submitted to the CAG under Section 143(5) of the Act, which, among other things, includes the Financial Statements of the Company. These financial statements are subject to supplementary audit to be conducted by the CAG within sixty days from the date of receipt of the Audit Report under the provisions of Section 143(6) of the Act.

Audit of Statutory Corporations is governed by their respective legislations. Out of the six Statutory Corporations in Karnataka, the CAG is the sole auditor for four State Road Transport Corporations[5]. In respect of State Warehousing Corporation and State Financial Corporation, the audit is conducted by Chartered Accountants while the Supplementary Audit is conducted by the CAG.

Role of Government and Legislature

1.4. The State Government exercises control over the affairs of these PSUs through their administrative departments. The Chief Executives and Directors to the Board are appointed by the Government.

The State Legislature also monitors the accounting and utilisation of Government investments in the PSUs. For this, the Annual Reports together with the Statutory Auditors' Report and Comments of the CAG, in respect of State Government Companies and Separate Audit Reports in case of Statutory

[5] Karnataka State Road Transport Corporation, Bangalore Metropolitan Transport Corporation, North Eastern Karnataka Road Transport Corporation and North Western Karnataka Road Transport Corporation.

Corporations are placed before the Legislature under Section 394(2) and/or 395 of the Act or as stipulated in the respective Acts. The Audit Reports of the CAG are submitted to the Government under Section 19A of the CAG's (Duties, Power and Conditions of Service) Act, 1971.

Stake of Government of Karnataka

1.5. The State Government has financial stake in these PSUs. This stake is of mainly three types:

- **Share capital and loans** – GoK provides Share Capital Contribution and financial assistance by way of loans to the PSUs from time to time;
- **Special financial support** – GoK provides budgetary support by way of grants and subsidies to the PSUs as and when required; and
- **Guarantees** – GoK also guarantees the repayment of loans with interest availed by the PSUs from financial institutions.

Investment in State PSUs

1.6. As on 31 March 2017, the investment (capital and long-term loans) in 102 PSUs was ₹ 103,717.40 crore[6] as per details given below:

Table No.1.2: Total Investment in PSUs

(₹ in crore)

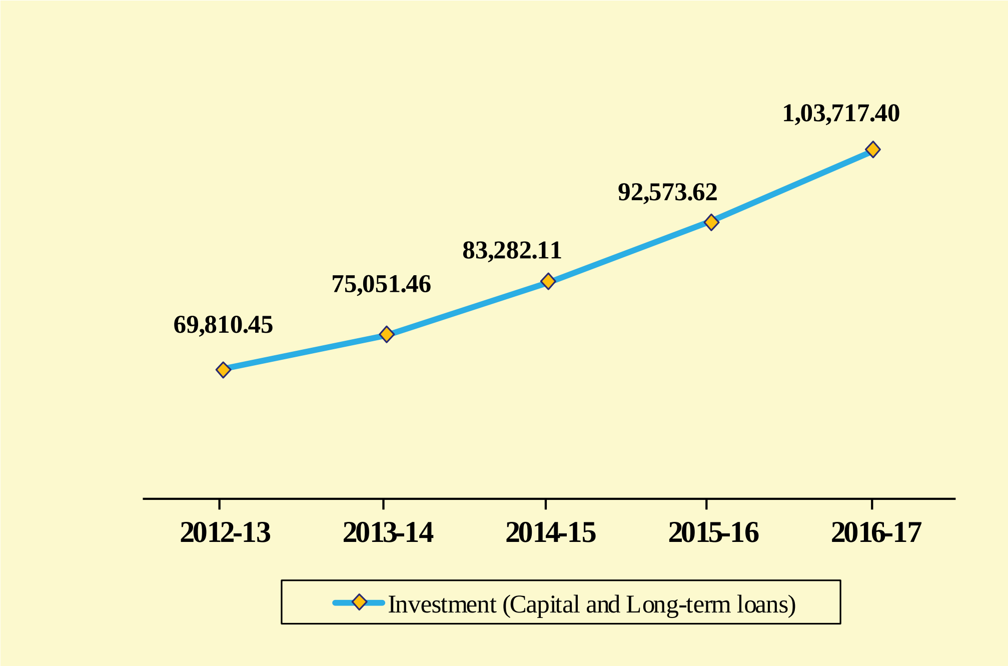
Sl. No.	Type of PSUs	Government Companies			Statutory Corporations			Grand total
		Capital	Long term loans	Total	Capital	Long term loans	Total	
1	Working PSUs	59,100.80	39,577.49	98,678.29	1,820.53	2,674.10	4,494.63	1,03,172.92
2	Non-working PSUs	111.85	432.63	544.48	-	-	-	544.48
	Total	**59,212.65**	**40,010.12**	**99,222.77**	**1,820.53**	**2,674.10**	**4,494.63**	**1,03,717.40**

As on 31 March 2017, of the total investment in State PSUs, 99.47 *per cent* was in working PSUs and the remaining 0.53 *per cent* in non-working PSUs. This total investment consisted of 58.85 *per cent* towards capital and 41.15 *per cent* in long-term loans. The investment grew by 48.57 *per cent* from ₹ 69,810.45 crore in 2012-13 to ₹ 1,03,717.40 crore in 2016-17 as shown in Chart No. 1.1.

[6] Eight PSUs did not furnish information on investments made during 2016-17.

Chart No.1.1: Total investment in PSUs

(₹ in crore)



1.7. The sector-wise summary of investments in the State PSUs as on 31 March 2017 is given below:

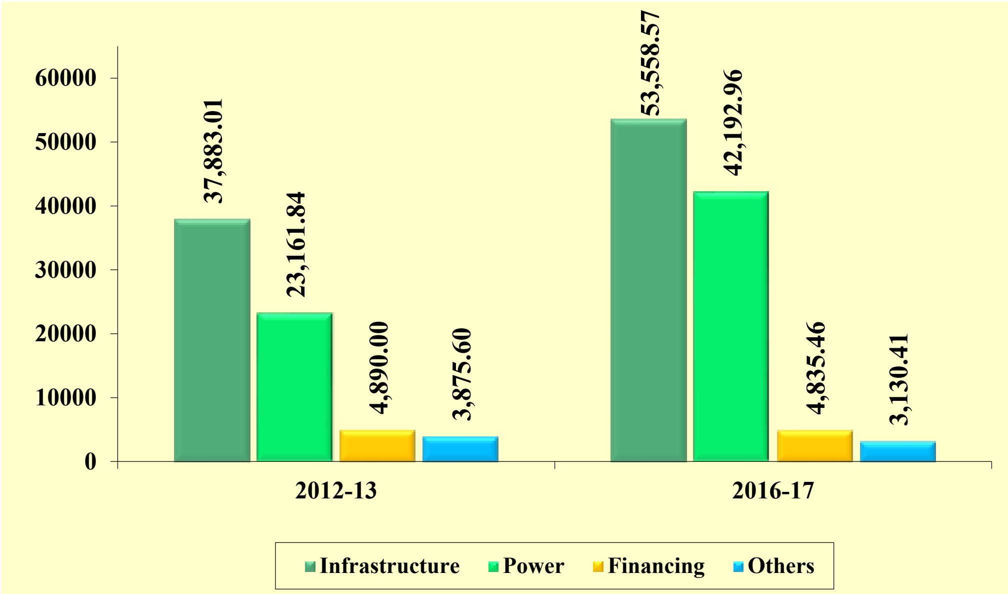
Table No.1.3: Sector-wise investment in PSUs

Sl. No.	Name of the Sector	Government companies		Statutory Corporations	Total	Investment (₹ in crore)
		Working	Non-working			
1	Agriculture and allied	12	5	1	18	439.82
2	Financing	14	-	1	15	4,835.46
3	Infrastructure	21	-	-	21	53,558.57
4	Manufacturing	19	7	-	26	1,086.43
5	Power	11	-	-	11	42,192.96
6	Service	4	-	4	8	1,604.05
7	Miscellaneous	3	-	-	3	0.11
	Total	**84**	**12**	**6**	**102**	**103,717.40**

The investment in four significant sectors at the end of 31 March 2013 and 31 March 2017 are indicated in Chart No.1.2.

Chart No.1.2: Sector-wise investment in PSUs

(₹ in crore)



The thrust of investments in PSUs was in Infrastructure and Power sectors, accounting for 51.64 *per cent* and 40.68 *per cent* respectively in 2016-17. Between 2012-13 and 2016-17, the investment in Infrastructure and Power sectors increased by ₹ 15,675.56 crore and ₹ 19,031.12 crore respectively.

Special support and returns during the year

1.8. The State Government provided financial support to PSUs in various forms through annual budget. The summarised details of budgetary outgo towards equity, loans, grants/subsidies, loans written off and interest waived in respect of State PSUs for three years ended 2016-17 are given below:

Table No.1.4: Details regarding budgetary support to PSUs

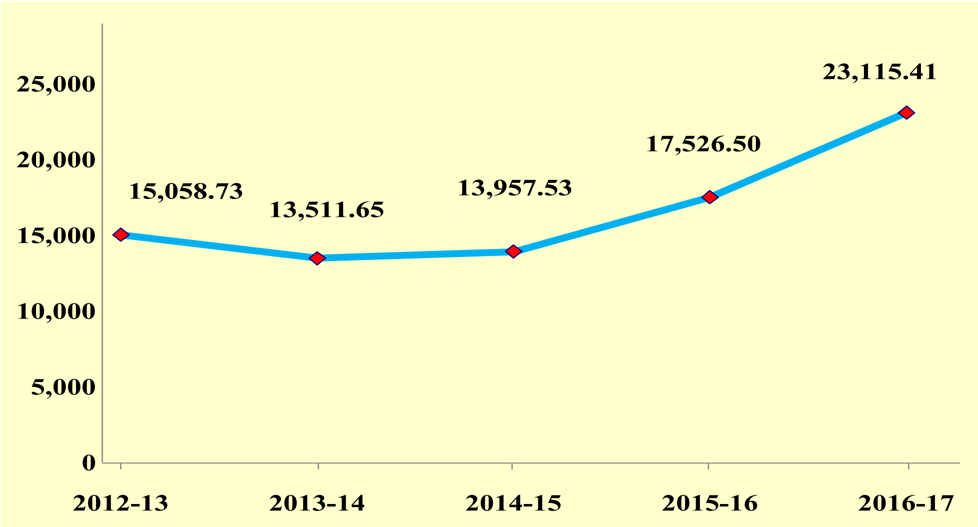
(₹ in crore)

Sl. No.	Particulars	2014-15		2015-16		2016-17	
		No. of PSUs	Amount	No. of PSUs	Amount	No. of PSUs	Amount
1	Equity capital outgo from budget	22	3,990.66	22	4,528.88	17	6,715.21
2	Loans given from budget	5	38.88	7	241.47	3	128.71
3	Grants/Subsidy from budget	27	9,927.99	31	12,756.15	33	16,271.49
4	**Total outgo**		**13,957.53**		**17,526.50**		**23,115.41**
5	Waiver of loans and interest	1	8.25	-	-	-	-
6	Guarantees issued	9	3,736.46	7	2,434.04	11	2,120.35
7	Accumulated Guarantee Commitment	15	7,251.35	17	10,477.08	19	8,286.40

The details regarding budgetary outgo towards equity, loans, grants and subsidies for past five years are given in the Chart below:

Chart No.1.3: Budgetary outgo towards equity, loans, grants and subsidies

(₹ in crore)



The budgetary support in respect of equity, loans and grants and subsidies increased from ₹ 15,058.73 crore in 2012-13 to ₹ 23,115.41 crore in 2016-17.

Guarantees for loan and guarantee commission outstanding

1.9. In order to enable PSUs to obtain financial assistance from Banks and Financial Institutions, the State Government gives guarantee under Karnataka Ceiling on Government Guarantees Act, 1999 (as amended by Act 15 of 2002). The Government charges a minimum of one *per cent* as guarantee commission, which cannot be waived under any circumstances. The guarantee commitment varied from ₹ 7,251.35 crore in 2014-15 to ₹ 10,477.08 crore in 2015-16 and to ₹ 8,286.40 crore during 2016-17. Guarantee fee of ₹ 126.95 crore was paid by seventeen PSUs during 2016-17. The outstanding accumulated guarantee fees or commission as on 31 March 2017 was ₹ 34.70 crore[7].

Reconciliation with Finance Accounts

1.10. The figures in respect of equity, loans and guarantees outstanding as per the records of State PSUs should agree with that of the figures appearing in the Finance Accounts of the State. In case the figures do not tally, the PSUs concerned and the Finance Department should carry out reconciliation of the differences. The position in this regard as on 31 March 2017 is given below:

[7] The PSUs, which had major arrears were Rajiv Gandhi Rural Housing Corporation Limited (₹ 12.30 crore), Karnataka Food and Civil Supplies Corporation Limited (₹ 11.33 crore), Karnataka Rural Infrastructure Development Corporation (₹ 2.92 crore) and Cauvery Neeravari Nigama Limited (₹ 2.64 crore). The outstanding dues of the remaining PSUs was ₹ 5.51 crore.

Table No.1.5: Equity, loans and guarantees outstanding as per Finance Accounts *vis-a-vis* records of PSUs

(₹ in crore)

Sl. No.	Outstanding in respect of	Amount as per Finance Accounts	Amount as per records of PSUs	Difference
	1	2	3	4 = 2-3
1	Equity	54,523.31	57,654.19	(-)3,130.89
2	Loans	2,756.88	1,737.34	1,019.54
3	Guarantees	12,588.33	8,286.40	4,301.93

There were differences in respect of 83 PSUs. The Government and the PSUs should take concrete steps to reconcile the differences in a time-bound manner.

Arrears in finalisation of accounts

1.11. The financial statements of the Companies for every financial year are required to be finalised within six months from the end of the relevant financial year, *i.e.* by end of September, in accordance with the provisions of Section 96(1) of the Companies Act, 2013. Failure to do so may attract penal provisions under Section 99 of the Act. Similarly, in case of Statutory Corporations, their accounts are finalised, audited and presented to the Legislature as per the provisions of their respective Acts.

The table below provides the details of progress made by working PSUs in finalisation of accounts by 30 September 2017:

Table No.1.6: Position relating to finalisation of accounts of working PSUs

Sl. No.	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17
1	Number of working PSUs	79	81	81	81	90
2	Number of accounts finalised during the year	81	73	82	70	72
3	Number of accounts in arrears	40	48	44[8]	57[9]	75[10]
4	Number of working PSUs with arrears in accounts	36	41	38	47	59
5	Extent of arrears (number in years)	1 to 2 years	1 to 3 years	1 to 2 years	1 to 3 years	1 to 4 years

During the year, 72 accounts were finalised, which included six accounts of six Statutory Corporations. The number of accounts in arrears increased from 40 (2012-13) to 75 (2016-17). Of the 75 arrears of accounts, 69 accounts pertained to the working Government Companies, whose accounts were in

[8] During the year 2014-15, two PSUs (Karnataka Vishwakarma Community Development Corporation Limited and Bangalore Suburban Rail Company Limited) did not finalise their first accounts and one PSU (Karnataka EMTA Collieries Limited) was closed down. Hence, arrears of these three PSUs were excluded.

[9] During the year 2015-16, the arrears of two PSUs (Karnataka Vishwakarma Community Development Corporation Limited and Bangalore Suburban Rail Company Limited), which were excluded in the previous year (2014-15), were added back.

[10] Includes first year accounts of eight newly incorporated PSUs.

arrears for one to four years. The arrears included six accounts pertaining to six Statutory Corporations.

The Administrative Departments have the responsibility to oversee the activities of these PSUs and to ensure that the accounts are finalised and adopted by these PSUs within the stipulated period. The Accountant General periodically takes up the matter with the State Government/Administrative Departments concerned for liquidating the arrears of accounts.

1.12. The State Government invested ₹ 20,074.61 crore in 59 PSUs during the years, for which, accounts were not finalised as detailed in **Appendix-1**. In the absence of finalisation of accounts and their subsequent audit, it could not be ensured whether the investments and expenditure incurred were properly accounted for and the purpose for which the amount was invested was achieved or not. Thus, the Government's investment in such PSUs remained outside the control of the State Legislature.

1.13. In addition to the above, as on 30 September 2017, there were arrears in finalisation of accounts by non-working PSUs. Out of 12 non-working PSUs, five were in the process of liquidation, whose accounts were in arrears for twelve to fourteen years. Of the remaining seven non-working PSUs, six PSUs had no arrears of accounts. One PSU had arrears of accounts for one year.

Table No.1.7: **Position relating to arrears in finalisation of accounts of non-working PSUs**

Sl. No.	No. of non-working companies	Period for which accounts were in arrears	No. of years for which accounts were in arrears
1	6	-	-
2	1	2016-17	1
3	1	2005-06 to 2016-17	12
4	2	2004-05 to 2016-17	13
5	2	2003-04 to 2016-17	14

Placing of Separate Audit Reports in the Legislature

1.14. The position depicted below shows the status of placement of Separate Audit Reports (SARs) issued by the CAG (upto 30 September 2017) on the accounts of Statutory Corporations in the Legislature:

Table No.1.8: **Status of placement of SARs in Legislature**

Sl. No.	Name of Statutory Corporation	Year upto which SARs placed in the Legislature	Year for which SARs not placed in the Legislature	
			Year of SAR	Date of issue to the Government/ Present Status (September 2017)
1	Karnataka State Road Transport Corporation	2015-16	2016-17	Preparation of SAR was under progress.
2	Bangalore Metropolitan Transport Corporation	2015-16	2016-17	
3	North Eastern Karnataka Road Transport Corporation	2015-16	2016-17	
4	North Western Karnataka Road Transport Corporation	2015-16	2016-17	
5	Karnataka State Financial Corporation	2015-16	2016-17	

Impact of non-finalisation of accounts

1.15. As pointed out in **Paragraph 1.11 to 1.13**, the delay in finalisation of accounts may also result in risk of fraud and leakage of public money apart from violation of the provisions of the relevant statutes. In view of the arrears of accounts, the actual contribution of PSUs to the State GDP for the year 2016-17 could not be ascertained and their contribution to the State exchequer was also not reported to the State Legislature.

It is, therefore, recommended that:

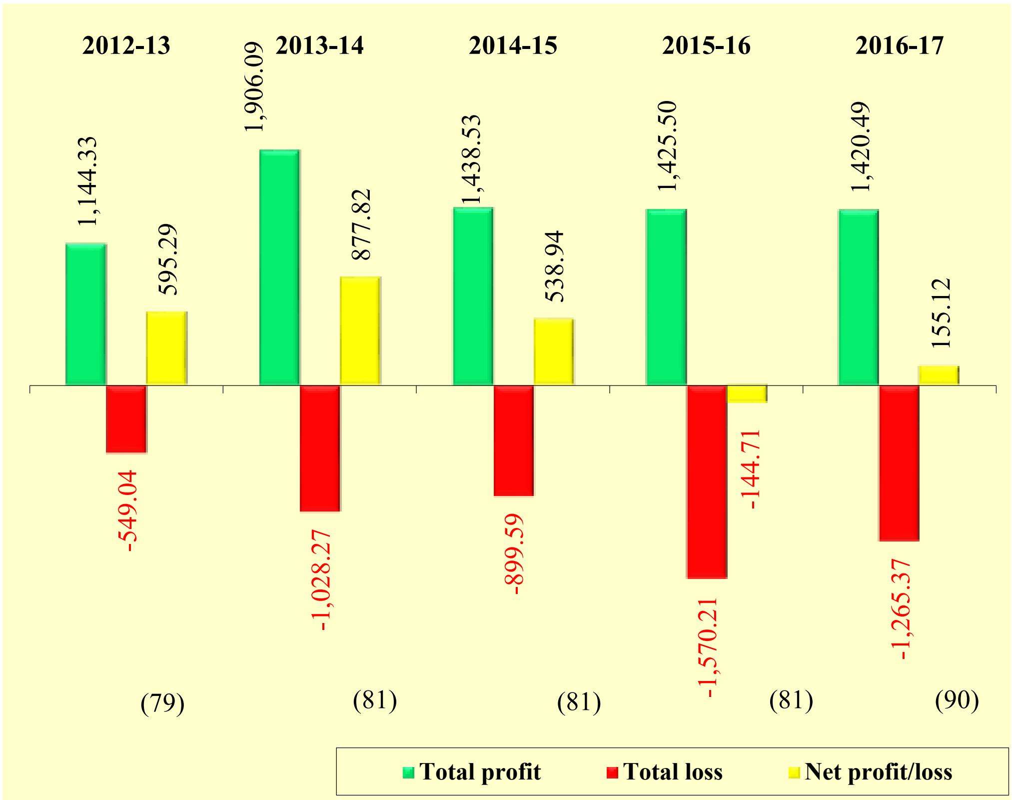
- **The Government may set up a cell to oversee the clearance of arrears and set the targets for individual companies which can then be monitored by the cell; and**
- **The Government may consider outsourcing the work relating to preparation of accounts wherever the staff was inadequate or lacked expertise.**

Performance of PSUs as per their latest finalised accounts

1.16. The financial position and working results of working Government Companies and Statutory Corporations are detailed in **Appendix-2**. Overall profit (losses) earned (incurred) by the working PSUs of the State during 2012-13 to 2016-17 are given below in a bar chart.

Chart No.1.4: **Profit/Loss of working PSUs**

(₹ in crore)



(Figures in brackets show the number of working PSUs in respective years)

As per their latest finalised accounts, out of the 90 working PSUs, 52 PSUs earned profit of ₹ 1,420.49 crore and 22 PSUs incurred loss of ₹ 1,265.37 crore. Further, eight[11] PSUs, incorporated during the year, did not finalise their first accounts[12]. One Company (Bangalore Suburban Rail Company Limited - incorporated in March 2014) did not finalise its first accounts. Three companies'[13] projects were under construction stage and did not prepare profit and loss account and recorded only pre-operative expenditure. One Company (Rajiv Gandhi Rural Housing Corporation Limited) prepared income and expenditure account and capitalised the excess of expenditure over income. Three Companies[14] prepared statement of income and expenditure.

The major contributor to profit was Karnataka Rural Infrastructure Development Corporation Limited (₹ 109.88 crore). Huge losses were incurred by Karnataka Neeravari Nigam Limited (₹ 476.88 crore), Hubli Electricity Supply Company Limited (₹ 372.73 crore) and Gulbarga Electricity Supply Company Limited (₹ 131.25 crore).

The working PSUs showed aggregate profits during the three years from 2012-13 to 2014-15 and incurred net aggregate loss of ₹ 144.71 crore during the year 2015-16. However, during the year 2016-17, the working PSUs showed aggregate profits of ₹ 155.12 crore. The main reasons were, as compared to previous year (2015-16), decrease in losses of Karnataka Neeravari Nigam Limited (by ₹ 493.89 crore) and Krishna Bhagya Jala Nigam Limited (by ₹ 82.58 crore), and increase in profits of Chamundeshwari Electricity Supply Corporation Limited (by ₹ 13.52 crore), Karnataka Renewable Energy Development Corporation Limited (by ₹ 7.68 crore) and Karnataka Soaps and Detergents Limited (by ₹ 7.61 crore).

1.17. Some other key parameters of PSUs are given below:

Table No.1.9: **Key parameters of State PSUs**

(Sl. No. 3,4,6,7: ₹ in crore)

Sl. No.	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17
1	Return on capital employed (*per cent*)	4.77	5.46	5.16	4.80	4.92
2	Return on Equity (*per cent*)	0.10	1.07	(-) 0.17	(-) 0.80	(-) 0.08
3	Debt	27,434.29	28,434.00	32,086.94	36,774.18	42,613.76
4	Turnover[15]	37,867.13	44,908.32	48,765.18	53,787.89	56,478.00
5	Debt-Turnover ratio	0.72:1	0.63:1	0.66:1	0.68:1	0.75:1
6	Interest payments	2,557.69	3,038.67	4,090.73	4,592.09	3,807.07
7	Accumulated profits/ losses (-)	1,388.01	1,894.94	731.66	861.65	299.26

(Above figures pertain to all PSUs except for turnover, which is for working PSUs).

[11] BBC, TMTP, VJNL, HDSCL, DSCL, BSCL, SSCL and TSCL.

[12] First year accounts of one PSU (BBC) was not subject to supplementary audit by the CAG.

[13] Cauvery Neeravari Nigama Limited, Raichur Power Corporation Limited and Tadadi Port Limited.

[14] Karnataka Food and Civil Supplies Corporation Limited, Karnataka Vocational Training and Skill Development Corporation Limited and Invest Karnataka Forum.

[15] Turnover of working PSUs as per their latest finalised accounts as on 30 September 2017.

1.18. The State Government formulated (May 2003) guidelines according to which, Government nominees on the Boards of Public Enterprises or Joint Ventures, where the State Government had equity holding, should insist on the declaration of minimum dividend of 20 *per cent* on shareholding. As per their latest finalised accounts, 55 PSUs[16] earned an aggregate profit of ₹ 1,420.61 crore, but only 13 PSUs declared dividend, amounting to ₹ 12.18 crore.

Winding up of non-working PSUs

1.19. There were 12 non-working PSUs (all companies) as on 31 March 2017. Of these, five PSUs have commenced liquidation process.

During June 2017, Government of Karnataka issued an Order according approval for reconstituting Board of Directors of BSRCL and directed that the newly constituted Board of Directors of the Company shall take all necessary steps for the closure of the Company. However, formal order for closure was yet (September 2017) to be issued.

The number of non-working companies at the end of each year for the past five years is given below:

Table No.1.10: Non-working PSUs Particulars

Sl. No.	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17
1	No. of non-working companies	14	14	12	12	12

Since the non-working PSUs did not contribute to the State economy and did not meet the intended objectives, these PSUs may be considered either for closure or for revival. During 2016-17, non-working PSUs incurred ₹ 16.17 crore towards establishment costs. This expenditure was financed through rental receipt, interest receipt and other receipts.

1.20. The stages of closure in respect of non-working PSUs are given below:

Table No.1.11: Stages of closure of non-working PSUs

Sl. No.	Particulars	Companies
1	Total number of non-working PSUs	12
2	Of (1) above, the number under	
(a)	Liquidation by Court (liquidator appointed)	5
(b)	Closure, *i.e.* closing orders/instructions issued but liquidation process not yet started	7

During the year 2016-17, no PSU was wound up. The companies, which have taken the route of winding up by Court order are under liquidation for a period ranging from twelve years to fourteen years. The process of voluntary winding up under the Companies Act is much faster and requires to be adopted vigorously.

[16] Including three non-working PSUs (MTC, MCT and KTL).

Comments on Accounts

1.21. Fifty nine working companies forwarded their 66 audited accounts to the Accountant General (AG) between 1 October 2016 and 30 September 2017. Of these, 41 accounts (of 38 companies) were selected for Supplementary Audit. The Audit Reports of the Statutory Auditors (appointed by the CAG) and the supplementary audits of the CAG indicate that the quality of maintenance of accounts requires improvement. The details of aggregate money value of comments of statutory auditors and the CAG are given below:

Table No.1.12: **Impact of audit comments on working companies**

(₹ in crore)

Sl. No.	Particulars	2014-15		2015-16		2016-17	
		No. of accounts	Amount	No. of accounts	Amount	No. of accounts	Amount
1	Decrease in profit	14	746.20	17	2,165.03	12	1,395.86
2	Increase in profit	7	38.75	4	30.12	5	18.65
3	Decrease in loss	1	1.36	-	-	1	0.57
4	Increase in loss	8	656.53	6	13.83	7	613.78
5	Non-disclosure of material facts	5	-	3	-	5	-
6	Errors of classification	10	-	2	-	1	-

During the year 2016-17, the Statutory Auditors issued unqualified reports on 19 accounts, qualified reports on 45 accounts, adverse report (which means that accounts did not reflect a true and fair position) on one accounts and disclaimer report (which means that auditor could not form an opinion on the accounts) on one accounts. The compliance of companies with the Accounting Standards remained poor as there were 79 instances of non-compliance in 27 accounts during the year.

1.21.1. Similarly, six working Statutory Corporations forwarded their six accounts to AG during the year 2016-17. Of these, four accounts of four Statutory Corporations pertained to sole audit by the CAG, while the other two were supplementary audit after audit by Statutory Auditors. The Audit Reports of Statutory Auditors and the sole/supplementary audit of the CAG indicate that the quality of maintenance of accounts requires improvement. The details of aggregate money value of comments of the Statutory Auditors and the CAG are given below:

Table No.1.13: **Impact of audit comments on Statutory Corporations**

(₹ in crore)

Sl. No.	Particulars	2014-15		2015-16		2016-17	
		No. of accounts	Amount	No. of accounts	Amount	No. of accounts	Amount
1	Decrease in profit	3	4.63	1	15.96	3	17.95
2	Increase in profit	-	-	-	-	1	116.10
3	Decrease in loss	-	-	-	-	1	0.27
4	Increase in loss	4	27.92	3	9.50	1	2.67

During the year all six accounts were issued qualified certificates. Four Statutory Corporations reported a total profit of ₹ 120.93 crore, while two reported losses amounting to ₹ 60.70 crore.

Response of the Government to Audit

Performance Audits and Paragraphs

1.22. For the Report of the Comptroller and Auditor General of India for the year ended 31 March 2017, two Performance Audits, one Thematic Audit and 11 Compliance Audit paragraphs were issued to the Additional Chief Secretaries or Principal Secretaries of the respective Departments to furnish replies. Replies in respect of one Performance Audit and eight Compliance Audit paragraphs were awaited from the State Government (December 2017).

Follow up action on Audit Reports

Replies outstanding

1.23. The Report of the CAG represents the culmination in the process of audit scrutiny. It is, therefore, necessary that they elicit appropriate and timely response from the Executive. The Finance Department, Government of Karnataka, issued (January 1974) instructions to all Administrative Departments to submit replies to paragraphs and Performance Audits (PAs) included in the Audit Reports of the CAG within a period of three months of their presentation to the Legislature, without waiting for any questionnaires from the Committee on Public Undertakings (COPU). The status of receipt of replies to the report of Comptroller and Auditor General of India from the GoK is given below:

Table No.1.14: **Replies not received as on 30 September 2017**

Year of the Audit Report (PSUs)	Date of placing the Audit Report in the State Legislature	Total PAs and Paragraphs in the Audit Report		Number of PAs/ Paragraphs for which replies were not received	
		PAs	Paragraphs	PAs	Paragraphs
2015-16	23.03.2017	2	14	2	11

It could be seen that replies for two Performance Audits and eleven paragraphs in respect of five departments[17], which were commented upon, were not furnished by GoK (September 2017).

Discussion of Audit Reports by COPU

1.24. The status of Performance Audits (PAs) and paragraphs that appeared in Audit Reports on PSUs and discussed by COPU as on 30 September 2017 was as under:

[17] Energy Department, Water Resources Department, Information and Technology Department, Agriculture and Horticulture Department and Commerce and Industries Department.

Table No.1.15: Status of discussion of PAs and Paragraphs

Period of Audit Report	Number of PAs/paragraphs			
	Appeared in Audit Report		Para discussed	
	PAs	Paragraphs	PAs	Paragraphs
2011-12	2	12	1	12
2012-13	2	12	2	11
2013-14	2	19	1	18
2014-15	2	17	1	12
2015-16	2	14	0	3
Total	**10**	**74**	**5**	**56**

Compliance to Reports of Committee on Public Undertakings (COPU)

1.25. Action Taken Notes (ATN) from the Government of Karnataka pertaining to five paragraphs of five Reports of COPU and two *suo-motu* Reports of COPU, presented to the State Legislature between December 2011 and March 2017, were not received (September 2017) as indicated below:

Table No.1.16: Compliance to COPU Reports

Year of the COPU Reports	Total number of COPU Reports	Total no. of recommendations in COPU Report	No. of recommendations where ATNs not received
2011-12	1	25	25
2012-13	1	11	11
2013-14	2	18	18
2014-15	1	5	5
2015-16	1	7	7
2016-17	1	7	7
Total	**7**	**73**	**73**

These reports of COPU contained recommendations in respect of paragraphs pertaining to five Departments[18], which appeared in the Reports of the CAG of India between the period 2008-09 and 2014-15.

It is recommended that the Government may ensure: (a) sending replies to inspection reports/draft paragraphs/Performance Audits and ATNs on the recommendations of COPU as per the prescribed time schedule; (b) recovery of the system of responding to audit observations.

Response to Inspection Reports

1.26. Audit observations noticed during audit and not settled on the spot were communicated to the heads of PSUs and departments concerned of the State Government through Inspection Reports. The heads of PSUs are required to furnish replies to the Inspection Reports through respective heads of departments within a period of one month. Department-wise break-up of Inspection Reports and audit observations outstanding as on 31 March 2017 are given in **Appendix-3**.

[18] Commerce and Industries Department, Urban Development Department, Women and Child Development Department, Transport Department and Energy Department.

It is recommended that the Government may ensure that a procedure exists for taking action (a) against officials who fail to respond to Inspection Reports based on the reports of Audit Monitoring Cell constituted by the Government and (b) to recover loss/outstanding advances/overpayment within the prescribed time.

Coverage of this Report

1.27. This Report contains observations on two Performance Audits on 'The Performance of RTPS Unit-8 of Karnataka Power Corporation Limited' and 'Implementation of Projects by Cauvery Neeravari Nigama Limited', one Thematic Audit and 11 Compliance Audit paragraphs. The financial effect of the observations totalled to ₹ 1,658.38 crore.

Disinvestment, Restructuring and Privatisation of PSUs

1.28. The State Government approved and adopted (February 2001) a comprehensive policy on public sector reforms and privatisation of Public Sector Undertakings in the State. Accordingly, the Government identified 31 PSUs for closure, restructuring and privatisation. Seven companies[19] were dissolved/amalgamated at the end of September 2017. The position about the action taken by the Government in respect of the remaining 24 companies identified for closure/privatisation/restructuring was as under:

Table No1.17: **Status of disinvestment/restructuring of PSUs**

Sl. No.	Particulars	No. of companies	Government order issued	Government order not yet issued
1	Non-working Government Companies decided for closure	12	12[20]	-
2	Working Government Companies decided for closure	3	1[21]	2[22]
3	Working Government Companies decided for privatisation	8	6[23]	2[24]
4	Restructuring of Working Government Companies	1	1[25]	-

[19] Karnataka Tungsten Moly Limited, Karnataka Agro Proteins Limited, Vishveswaraya Vidyuth Nigam Limited, Karnataka Film Industries Development Corporation Limited, Karnataka Small Industries Marketing Corporation Limited, Chamundi Machine Tools Limited and Karnataka State Textiles Limited.

[20] All the non-working companies as per **Appendix-2**.

[21] Karnataka State Construction Corporation Limited.

[22] Karnataka Fisheries Development Corporation Limited, Karnataka State Electronics Development Corporation Limited.

[23] The Karnataka Silk Industries Corporation Limited, Karnataka Soaps and Detergents Limited, The Mysore Electrical Industries Limited, Karnataka Vidyuth Karkhane Limited, Mysore Minerals Limited, Sree Kanteerava Studios Limited.

[24] The Mysore Sugar Company Limited, The Mysore Paper Mills Limited.

[25] The Karnatak State Forest Industries Corporation Limited to be merged with Karnataka Cashew Development Corporation Limited and Karnataka Forest Development Corporation Limited.

In October 2005, the Government adopted a Policy on Public Sector Enterprises Reforms, which enunciated an assessment on a case-to-case basis including mechanism for its implementation by incorporating the earlier reform process. After the study, appropriate specific solution was to be considered. The present status of the recommendations of study on case-to-case basis of PSUs was awaited (November 2017).

Chapter - II

Performance Audits of Government Companies

Chapter - II

2. Performance Audits relating to Government Companies

2.1 Performance Audit on 'The Performance of Raichur Thermal Power Station Unit-8 of Karnataka Power Corporation Limited'

Executive Summary

Introduction

Karnataka Power Corporation Limited (KPCL; hereinafter referred to as the Company) was incorporated (July 1970) as a wholly owned State Government Company, with the main objective of planning, promoting and organising development of power including construction, generation and maintenance of power stations in the State. In pursuit of these objectives, the Company commissioned (1985-2002), a coal based thermal power station at Raichur with seven units of 210 Mega Watt (MW) each. Besides, Hydel, Solar and Wind generating stations were also commissioned by the Company over the years.

Raichur Thermal Power Station: Unit-8

The Company informed (October 2002) the Government of Karnataka (GoK) that the annual demand for power was showing an increasing trend of 9 *per cent* to 12 *per cent* and in order to meet the increasing demand, the 210 MW was to be expanded. In this backdrop, establishment of a new unit with 210 MW was approved (June 2003) by GoK for implementation by the Company at an estimated cost of ₹ 673.49 crore. Subsequently, the Board of Directors of the Company decided (August 2006) to go in for the more efficient upgraded version of 250 MW plant, considering the phasing out of 210 MW class of Turbine and Generator by the manufacturers and the continued need for technical support, spares and maintenance support during the life of the plant. The Estimated Project Cost was revised to ₹ 925 crore (August 2006), comprising mainly of Boiler, Turbine and Generator (BTG) Package, Mechanical Package, Electrical Package, Civil Package and others, including finance cost. The BTG Package was awarded (March 2007) to M/s. Bharat Heavy Electricals Limited based on approval of GoK (April 2006). The Unit was to be commissioned by September 2009. Though the Unit was synchronised in April 2010 at a cost of ₹ 1,044.57 crore, it was commissioned only in December 2010, *i.e.* after a delay of 15 months. The Company got an assurance (July 2006) from Mahanadi Coalfields Limited for supply of 10.11 lakh tonnes per annum of 'F' grade coal starting supply from 2010 and entered into an agreement for the same in March 2013.

Audit Objectives

The objectives of the Performance Audit were to assess whether:

- Operational efficiency of the Unit-8 of Raichur Thermal Power Station (RTPS) was achieved, leading to optimal output; and
- The Unit was able to keep associated environmental pollution levels within permissible limits through appropriate remedial steps.

Audit Findings

- The performance was quite sub-optimal during the first four years upto 2014-15 and the shortfall in generation during this period was 4,077.71 MU. (*Paragraphs 2.1.9.3, 2.1.10.1 and 2.1.10.4*)
- The loss of generation due to failure of equipment was 3,856.784 MU during the said period. (*Paragraphs 2.1.10.1 to 2.1.10.4*)
- The Management could have avoided much of the loss of generation due to failure of equipments (*viz.,* Electrostatic Precipitator, Coal Handling Plant and Air Pre-Heater) and ensured that the Unit lived upto the expectation of the State, which was reeling under severe power crisis. (*Paragraphs 2.1.10.1 to 2.1.10.4*)
- The auxiliary consumption of the Unit was above nine *per cent* till 2014-15 as against the norm of 8.5 *per cent* prescribed by Karnataka Electricity Regulatory Commission. (*Paragraph 2.1.11.1*)
- Heavy Fuel Oil (HFO), a start-up fuel, recorded very high consumption owing to repeated failure of equipment in the initial four years. (*Paragraph 2.1.11.3*)
- Consumption of coal was a big concern for the Unit as not only was the consumption very high, but there were concerns about the system of recording coal consumption, as it was not accurate. (*Paragraphs 2.1.11.4 and 2.1.11.5*)
- Consumption beyond limit not only resulted in financial loss but also impacted the environment as HFO and coal have a direct negative effect on the environment. The excess water consumption also adversely affects water conservation policy of the Government. (*Paragraphs 2.1.11.2, 2.1.11.3 and 2.1.11.4*)
- The Unit could not achieve 100 *per cent* disposal of fly ash and did not comply with the guidelines issued by MoEF in the interest of protecting the environment. (*Paragraph 2.1.12.1*)
- The Ash Pond, meant for only bottom ash (20 *per cent* of total ash), was filled with fly ash too (in the form of slurry). That, as well as the fact that slurry from neighbouring plant (YTPS) was also proposed for disposal in the same Ash Pond, was liable to cause it to be full before

its envisaged life-span, thereby endangering the neighbourhood and threating premature closure of the plant. There was no Action Plan in place to handle this crisis on a timely basis. (*Paragraph 2.1.12.1*)

- The Unit was responsible for higher Heat Rate and thus, prevented the Station from achieving Perform Achieve and Trade norms, thereby causing extra expenditure owing to purchase of Energy Saving Certificate (ESCerts) worth ₹ 107.39 crore. (*Paragraph 2.1.12.2*)

- The Stack Emission, though within the limits prescribed by KSPCB, was beyond the design of ESP. (*Paragraphs 2.1.12.3 and 2.1.12.4*)

Introduction

2.1.1. Power is an essential requirement and a critical infrastructure on which, the socio-economic development of a country depends. The availability of power at competitive rates is crucial to sustain growth of all sectors of the economy.

Karnataka Power Corporation Limited (Company) was incorporated (July 1970) as a wholly owned State Government Company, with the main objective of planning, promoting and organising development of power including construction, generation and maintenance of power stations in the State. In pursuit of these objectives, the Company commissioned (1985-2002), a coal based thermal power station at Raichur with seven units of 210 Mega Watt (MW) each. Besides, Hydel, Solar and Wind generating stations were also commissioned by the Company over the years.

Raichur Thermal Power Station Unit-8

2.1.2. The Company informed (October 2002) the Government of Karnataka that the annual demand for power showed an increasing trend at about 9 *per cent* to 12 *per cent* and in order to meet the increasing demand, there was need for a 210 MW expansion. In this backdrop, establishment of a new unit with 210 MW was approved (June 2003) by Government of Karnataka (GoK) for implementation at an estimated cost of ₹ 673.49 crore[26]. Subsequently, the Board of Directors of the Company decided (August 2006) to go in for the more efficient upgraded version of 250 MW plant, considering the phasing out of 210 MW class of Turbine and Generator by the manufacturers and the continued need for technical support, spares and maintenance support during the life of the plant. The Estimated Project Cost was revised (August 2006) to ₹ 925[27] crore, comprising mainly Boiler, Turbine and Generator (BTG) Package, Mechanical Package, Electrical Package, Civil Package and others, including finance cost. BTG Package was awarded (March 2007) to M/s. Bharat Heavy Electricals Limited based on approval of GoK (April 2006). Unit-8 was to be commissioned by September 2009. The Company got an assurance (July 2006) from Mahanadi Coalfields Limited for supply of 10.11 lakh tonnes per annum of 'F' grade coal and entered into an agreement for the same in March 2013. Though Unit-8 was constructed at a cost of ₹ 1,044.57 crore and synchronised[28] in April 2010, it was commissioned only in December 2010, *i.e.* after a delay of 15 months from the scheduled date of commissioning.

Organisational Structure

2.1.3. The affairs of the Company are managed by a Board of Directors comprising a Chairman, a Managing Director (MD) and three functional

[26] At ₹ 3.21 crore per MW.
[27] At ₹ 3.70 crore per MW.
[28] Connecting to grid power supply equating the parameters like magnitude, phase and frequency of the both power sources and connecting the generator with the power system network.

Directors. The Chief Minister of the State is the ex-officio Chairman of the Board. The MD is the Chief Executive of the Company. The Executive Director (Thermal) is assisted by three Chief Engineers, one each for Operation and Maintenance, Fuel Management and Civil Maintenance. Two Superintending Engineers are responsible for Operation and Maintenance of the plant. The Superintending Engineer (Thermal Construction) is the Task Force leader for implementation of the Unit.

Audit Objectives

2.1.4. The objectives of the Performance Audit were to assess whether:

- Operational efficiency of Unit 8 of Raichur Thermal Power Station (RTPS) was achieved, leading to optimal output; and
- The Unit was able to keep associated environmental pollution levels within permissible limits through appropriate remedial steps.

Scope and Methodology of Audit

2.1.5. The current Performance Audit covered the operational performance of the Unit-8 and its efforts to keep environmental pollution within permissible limits by meeting applicable environmental norms during 2011-12 to 2016-17. Audit scrutinised records at the Corporate Office and Design Office at Bengaluru and Plant (RTPS) at Shakthinagar, Raichur.

The methodology adopted for meeting the audit objectives involved explaining the audit objectives to the top management through an Entry Conference, scrutiny of records, interaction with the personnel of the audited entity, analysis of data, collection of information through audit requisitions, issue of audit queries and issue of Draft Performance Audit Report to the Management and the Government. The Audit Report was discussed with the Government in the Exit Conference held on 9 October 2017 and the views of the Government are included in the Report at the appropriate places.

Audit was conducted in conformity with the Auditing Standards issued by the Comptroller and Auditor General of India.

Audit Criteria

2.1.6. The following sources of audit criteria were adopted for assessing the achievement of audit objectives:

- Guidelines/Norms/Orders of Central Electricity Regulatory Commission (CERC), Central Electricity Authority (CEA), Karnataka Electricity Regulatory Commission (KERC) and Southern Regional Power Committee (SRPC);
- Instructions of the Ministry of Power, Government of India (GoI) and Government of Karnataka (GoK);
- Detailed Project Report, Design specifications;

- Targets of the Company, Manuals/Guidelines of the Company, data on achievement of parameters by other thermal stations in India; and
- Acts relating to Environmental laws, like the Environment (Protection) Act, 1986, the Air (Prevention and Control of Pollution) Act, 1981, the Water (Prevention and Control of Pollution) Act, 1974, Guidelines issued by Ministry of Environment and Forests and norms fixed by Pollution Control Boards.

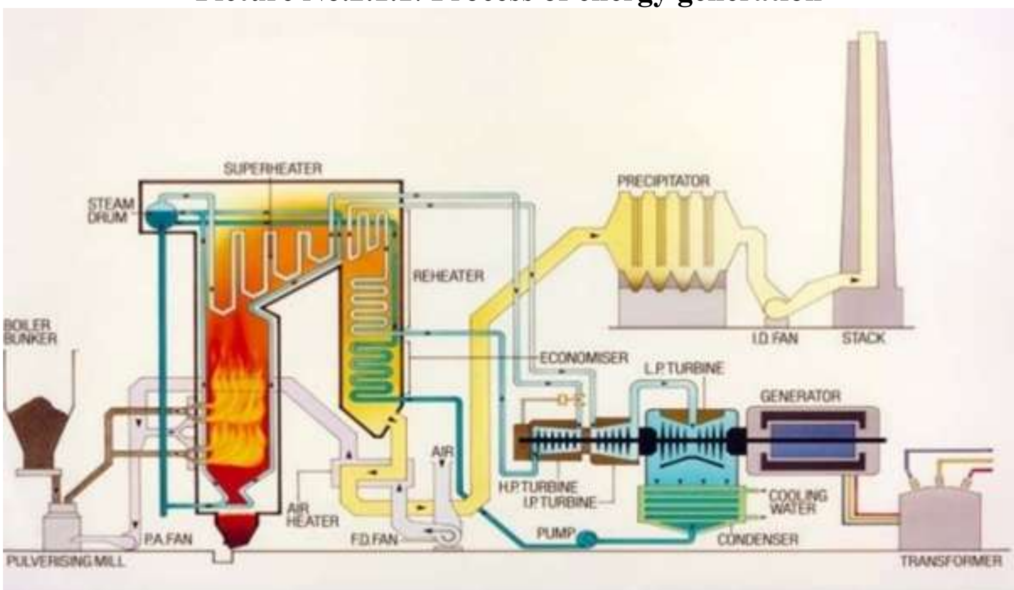
Acknowledgment

2.1.7. Audit acknowledges the co-operation extended by the Energy Department of GoK and the Management of the Company in facilitating the conduct of the Performance Audit.

Operational Performance

2.1.8. Thermal power plants use steam energy for the generation of electricity. Coal is burnt in the boiler to generate hot flue gases, which are used to heat the feed water. A superheated steam is, thus, generated which, under high pressure, is expanded in the steam turbine to rotate the turbine. The turbine is coupled with generator. When the turbine rotates, the generator also rotates and produces electricity. A schematic diagram and the process of energy generation in a thermal power station is given below:

Picture No.2.1.1: **Process of energy generation**



Optimum generation of electricity depends on the efficient functioning of various equipment, like boiler, turbine, generator and their accessories.

While submitting the application to Karnataka Electricity Regulatory Commission (KERC) for approval of Power Purchase Agreement and determination of tariff, the Company proposed the following operational norms, which were approved by KERC:

Table No. 2.1.1: Operational parameters of the Unit as approved by KERC

Sl. No.	Parameter	Operational norm
1	Plant Availability Factor (PAF)	85 *per cent*
2	Gross Calorific Value of Design Fuel	3,500 kcal/kg
3	Unit Heat Rate (UHR)	2,399 kcal/kWh
4	Auxiliary Consumption	8.5 *per cent*
5	Specific Fuel (oil) Consumption	1.00 ml/kWh
6	Energy at 85 *per cent* PAF for full year	1,862 million units
7	Declared capacity	250 MW

Source: Power Purchase Agreement as approved by KERC.

The table below indicates the operational performance of the Unit for the period 2011-12 to 2016-17:

Table No. 2.1.2: Table showing operational performance of the Unit

Sl. No.	Particulars	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
1	Annual Generation Capacity (MU)	2,196♦	2,190	2,190	2,190	2,196♦	2,190
2	No. of hours available	8,784♦	8,760	8,760	8,760	8,784♦	8,760
3	Planned outage in hours (in *per cent*)	837 (*9.53*)	1,080 (*12.33*)	0	1862 (*21.23*)	463 (*5.27*)	0
4	Forced outage in hours (in *per cent*)	2,825 (*32.16*)	4,240 (*48.40*)	2,085 (*23.80*)	651 (*7.43*)	469 (*5.34*)	324 (*3.70*)
5	Hours lost due to no load demand	177	0	531	376	289	1,034
6	Planned and forced outages (3+4) in hours (in *per cent*)	3,662 (*41.69*)	5,320 (*60.73*)	2,085 (*23.80*)	2,513 (*28.69*)	932 (*10.61*)	324 (*3.70*)
7	Actual running hours	4,945	3,440	6,144	5,871	7,563	7,402
8	Plant Availability Factor (PAF) (7x100/2)	56.30	39.27	70.14	67.02	86.10	84.50
9	Possible Generation in actual running hours(MU)[29]	1,236.25	860.00	1,536.00	1,467.75	1,890.75	1,850.50
10	Actual generation(MU)	951.27	630.52	805.78	987.72	1,661.50	1,745.00
11	Shortfall in generation (MU) (9-10)	284.98	229.48	730.22	480.03	229.25	105.50
12	Capacity utilisation (in *per cent*) (10/9) × 100	76.95	73.32	52.46	67.29	87.88	94.30
13	Plant Load Factor (PLF) (Sl. No. 10/Sl. No. 1 × 100)	43.32	28.79	36.79	45.10	75.66	79.68
14	UHR (kcal/kWh)	2,623	2,706	2,982	2,689	2,501	2,474
15	Thermal efficiency[30] (in *per cent*)	32.78	31.78	28.83	31.98	34.38	34.76

♦ Due to 366 days in the year, being leap years.

Source: Monthly Progress Reports of the Unit-8.

[29] Actual running hours × 250 MW × 1,000)/10,00,000.

[30] Thermal Efficiency of a power station is an index, which measures the efficiency of conversion of thermal energy to electrical energy. It is the output of electrical energy denoted as a percentage of heat energy contained in the fuel used in generation; 1 kWh *equals* 859.8452 kcal.

An analysis of the operational performance of the Unit-8 from the above table indicates that the performance of the unit was below the optimum level in the first four years and improved in the succeeding years.

Audit Findings

2.1.9. The first objective of this Performance Audit was to assess whether operational efficiency of the Unit was achieved leading to optimal output. Accordingly, the performance of the unit was analysed with reference to applicable norms and audit observed that the Unit-8 could not reach the milestones in the four-year period from 2011-12 to 2014-15. The Plant Load Factor (PLF) achieved by the Unit during this period varied from 28.79 *per cent* to 45.10 *per cent.* It was only from 2015-16 that the Unit picked up its performance. None of the operational parameters, *i.e.* PAF, UHR, Auxiliary consumption, *etc*. was achieved upto 2014-15.

Audit findings on the operational efficiency are discussed in the succeeding paragraphs.

Working of Efficiency Section

2.1.9.1. Each section of RTPS was assigned with particular jobs and Efficiency Section was one among them. This section, headed by an Executive Engineer, was assigned with the job of monitoring performance parameters, boiler efficiency, interacting with O&M staff for complying with performance parameters.

Audit observed that the Efficiency Section did not monitor the performance parameters and interact with O&M staff on regular basis.

Total outages

2.1.9.2. Outages refer to the period for which the plant remains closed for attending to planned/forced maintenance. Audit observed that the total outages of the Unit to total available hours gradually reduced from a high percentage of 60.73 in 2012-13 to 3.7 in 2016-17 (**refer Sl. No. 6 of Table No. 2.1.2)**. This was due to action initiated, though belatedly, to rectify machine related problems.

Non-achievement of minimum generation

2.1.9.3. The annual targets for generation were fixed by the Company after considering the planned outages during the year. The targets so fixed were forwarded to Central Electricity Authority (CEA), which were approved as proposed.

The table below depicts the details of installed capacity, target fixed, actual generation and shortfall in generation for the period from 2011-12 to 2016-17:

Table No. 2.1.3: **Installed capacity *vis-à-vis* actual generation**

(in million units)

Sl. No.	Particulars	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Total
1	Installed capacity	2,196	2,190	2,190	2,190	2,196	2,190	13,152
2	Minimum generation required to recover the fixed charges (85 *per cent* PAF)	1,867	1,862	1,862	1,862	1,867	1,862	11,182
3	Targets fixed by the company	1,760.00	1,509.00	1,657.00	1,200.00	1,674.00	1,640.64	9,440.64
4	Deficit in target (Sl. No. 2 - Sl. No.3)	107.00	353.00	205.00	662.00	193.00	221.36	1,741.36
5	Actual generation	951.27	630.52	805.78	987.72	1,661.50	1,745.00	6,781.84
6	Shortfall in generation to targets fixed (Sl. No. 5 - Sl. No.3)	808.73	878.48	851.22	212.28	12.50	-104.36	2,658.80
7	Percentage of generation to minimum generation required (Sl. No. 5/Sl. No. 2)x100	50.95	33.86	43.28	53.05	88.99	93.72	60.65

Source: Monthly Progress Reports of the Unit-8.

As per the Tariff Order of the Unit-8, the fixed charges are recoverable at 85 *per cent* Plant Availability Factor (PAF)[31], which works out to 11,182 Million Units (MU) for the period 2011-12 to 2016-17. The lower target fixed at 9,440.64 MU resulted in shortfall of 1,741.36 MU. The Unit-8 could not achieve even this lower target till 2015-16.

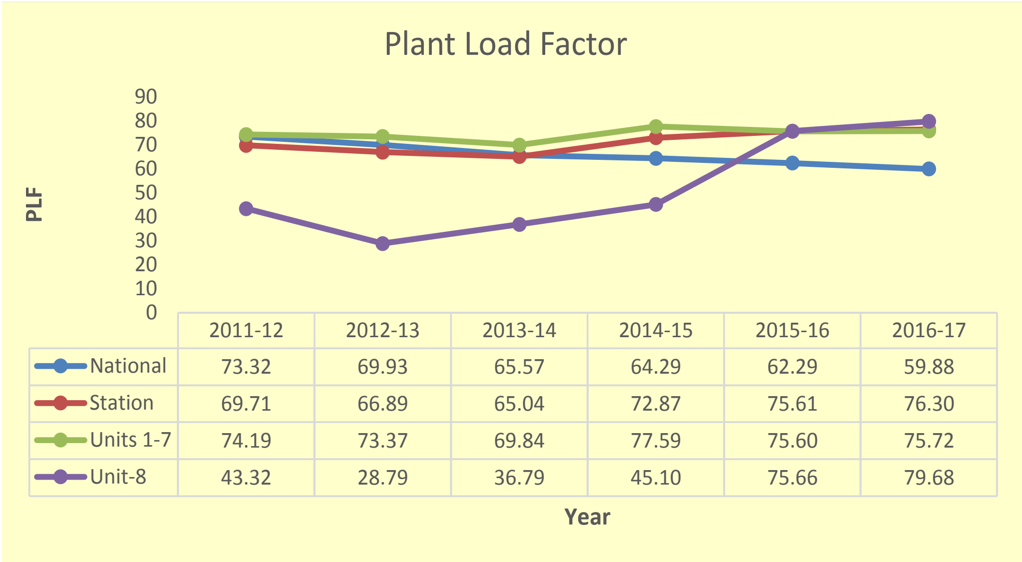
As a result of this sub-optimal performance, the anticipated demand of power in the State as envisaged by CEA was not achieved, notwithstanding the gradual improvement in generation from 2015-16.

2.1.9.4. The Company commissioned the Unit with a projection of operating the unit at 80 *per cent* PLF[32]. The average PLF of the country, that of the station as a whole and that of the Unit for the period from 2011-12 to 2016-17 are depicted graphically in Chart No. 2.1.1:

[31] PAF means the average of the Declared Capacities expressed as a percentage of the installed capacity in MW.

[32] The Plant Load Factor (PLF) is the ratio of the actual generation to generation at installed capacity.

Chart No. 2.1.1: **Actual PLF of the Unit *vis-à-vis* national and station averages**



Audit observed that the PLF was low upto 2014-15 and was below the national average. This indicated under-utilisation of its capacity.

The reasons for low generation as analysed by Audit are discussed below:

Generation loss due to machinery constraints

Failure of Barring Gear and turbine modules

2.1.10.1. Barring Gear is the mechanism provided to rotate the turbine generator shaft at a very low speed after stoppage of generation. When it stops completely, there is a tendency for the turbine shaft to deflect or bend (by millionths of inches) if allowed to remain in one position for too long. This is due to the heat inside the turbine casing tends to concentrate in the top half of the casing, making the top half portion of the shaft hotter than the bottom half. This small shaft deflection (only detectable by eccentricity meters) would be enough to cause damaging vibrations to the entire steam turbine generator unit when it is restarted.

Table No. 2.1.4: **Generation loss due to failure of Barring Gear**

Sl. No.	Year	No. of failures		Outage hours for major failures	Generation loss in MU
		Minor	Major		
1	2010-11	24	1	461	115.250
2	2011-12	8	4	2,230	557.491
3	2012-13	0	1	3,473	868.182
	Total	**38**		**6,164**	**1,540.924**

Source: Trip Analysis Report provided by the Company

During the period from September 2010 to May 2012, the Barring Gear failed at least 38 times. The first such instance of Barring Gear being out of service was in September 2010 (before Commercial Operation Date) and subsequently, major failures occurred on six occasions, along with eight occasions, which were minor in nature, between March 2011 and May 2012. BHEL rectified the defects on all occasions, and final failure was rectified on 12 November 2012. The equipment was failing since beginning and the Managing Director of the Company took up the matter with the top management of BHEL to replace the model only in December 2011 (after at least 33 failures between September 2010 and November 2011).

The Company waited for so many failures to happen without insisting on an in-depth study at the initial stage itself, when there was evidently an inherent problem in the model. This indicated a lack of commitment by the top management towards ensuring maximum efficiency of the Unit. The failure was due to latent defects[33] observed in the Intermediate and High Pressure modules of the turbine supplied by BHEL.

Due to failure of Barring Gear, 6,164 hours (257 days) were not available for generation during the period from March 2011 to November 2012 and in the process, it lost potential generation of 1,540.924 MU. As aforesaid in **paragraph 2.1.9.3**, PAF of 85 *per cent* was required for full recovery of fixed charges. Non-availability of 257 days for generation lowered the PAF **(refer Sl. No. 8 of Table 2.1.2)**, thereby affecting recovery of fixed charges to the extent of ₹ 223.21[34] crore.

Collapse of Electrostatic Precipitator (ESP)

2.1.10.2. Electrostatic Precipitator (ESP) is used to remove fly ash dust from gas streams. ESP works on the principle that dust laden gas passes into a chamber containing electrode wires at high negative Direct Current (DC) voltage. The dust particles become negatively charged and are deflected out of the gas stream onto positively charged electrodes (collecting plates) and are retained by them. Then by rapping, the particles fall into the dust hopper below and are transferred by blowers to silos for disposal.

ESP of Unit-8 consists of two passes, *viz.* Pass A and Pass B, each pass consisting of seven fields and four hoppers in each field (total of 28 hoppers in each Pass). ESP was designed to operate with both passes in service under normal operating condition.

Pass A got damaged when it fell from its position (16th February 2013) due to a huge collection of fly ash in the hoppers, resulting in minor damages to Pass B as well. The Company restored Pass B by carrying out minor modifications and synchronised (March 2013) the Unit-8. Pass A was replaced and synchronised (October 2014) after a lapse of 20 months, incurring an expenditure of ₹ 33.00 crore.

[33] A defect, which is not visible upon ordinary inspection, but which materially affects the machinery's performance or value.
[34] Difference between fixed charges to be recovered and actual recovery for the period from 2010-11 to 2012-13 (₹ 680.38 crore *minus* ₹ 457.17 crore).

The Unit had to run on partial load during March 2013 to August 2014 on account of only one Pass being operational during that period. From the following, it was clear that the Company had enough scope to prevent this from happening:

- Audit observed that fields in 15 to 17 hoppers of ESP out of 28 hoppers were not functioning during February 2013. BHEL informed the Company way back in July 2010 itself that Collecting Rapping Drives in field Nos. 1, 2 and 3 tripped on the Overload Protection of ESP and that overflow of ash from casing door in large quantity was observed. It warned that this might result in blowing off of the collecting electrodes and bending of Rapping Shaft. Hence, BHEL informed the Company to arrange for ash evacuation from Pass A and Pass B expeditiously and stated that it would not be responsible for any deformation and damages later.
- The Chief Engineer (O&M) of the station noticed (November 2010) that the Electronic Controllers were not functioning and dry fly ash was not being evacuated (manually or automatically) from Economiser Hopper.
- BHEL, while assessing the damage to ESP as explained above, reported (February 2013) that the damage was due to high ash accumulation in both passes of ESP beyond Hopper top level. The reason being that the ash handling system was operated manually depending upon the alarm received from individual Hoppers and ash was being evacuated accordingly.
- Central Power Research Institute (CPRI), appointed to report on the same issue, attributed the collapse to failure of fields in 10 of the 28 hoppers. It also stated that the effectiveness of ash evacuation process from the Hoppers was compromised due to malfunctioning of ash evacuation system and allowing ash to accumulate inside the hoppers due to malfunctioning of the system, which in turn overloaded the Hoppers, resulting in their detachment.
- The instruction manual of ESP too contained enough directions on how to maintain ESP. It stated that improper/incomplete Hopper evacuation may lead to precipitator malfunction. Though the Hoppers have adequate storage provision, they should be used only in the case of emergency and should not be used for collection of dust. Failure to evacuate ash from the system may lead to build-up of the ash above the Hopper top level, resulting in build-up of ash in the chamber and ultimately leading to the failure of the supporting structure. The Company ignored all these warnings leading to loss of generation was evident from the facts stated above.

The Operation and Maintenance division (O&M) of the Unit, assigned with the job of maintenance of ESP among other things, knew about the accumulation of ash and non-maintenance of Ash Handling System (AHS) by M/s. Lafarge India Pvt. Ltd. (contractor). The contractor had an agreement with the Company for lifting fly ash and maintaining AHS as well. Having noticed the problem, the O&M division should have rectified the same. Taking shelter under the fact that AHS was not handed over to the Division and that it was the duty of the contractor to maintain AHS, the Division did not rectify the defects. In fact, it was only through oral instructions of Executive Director (Thermal), the O&M Division was overseeing AHS and ESP operations. The contractor did not maintain AHS on the plea that the required quantity of fly ash was not being made available to him. The Management did not intervene in time to clear the confusion.

Considering the above facts, it was apparent that the Unit ignored maintenance of the ash evacuation system, which led to collapse of the ESP, resulting in loss of generation of 2,148 MU[35]. The Company operated the Unit during this period on partial load with one Pass only by consuming huge quantity of Heavy Fuel Oil (HFO) (**refer Paragraph 2.1.11.3**), which resulted in additional expenditure of ₹ 153.32[36]crore.

Installation of under-rated gear boxes for Coal Handling Plant

2.1.10.3. The Raichur Thermal Power Station had two Coal Handling Plants (CHP-I & II) to feed coal into the Bunkers. The CHP-I was meant for Units 1 to 4 and CHP-II was meant for Units 5 to 7. The work of extension of Coal Handling Plant - II from Unit-7 to Unit-8, along with Repair & Maintenance works of CHP-I & II, was awarded (October 2008) to M/s. Techpro Systems Ltd., Chennai (TSL) at a cost of ₹ 46 crore. Based on the designs approved (January 2009) by the Company, TSL executed the work. On synchronisation of Unit-8 (April 2010), the failure of gear boxes was noticed.

It was only when the accumulated cost towards maintenance of gear box failures increased to ₹ 2.44 crore that the Company contacted (April 2015) the original manufacturer, Premium Transmission Ltd (PTL) for remedy. PTL opined that service factor[37] of gear boxes for coal handling applications should be more than two but the actual service factor was 1.3. The capacity of the gear box provided was inadequate compared to load on the particular Conveyors. Therefore, PTL suggested upgrading of the existing gear boxes. The Company upgraded gear boxes (March 2016) and did not notice any problem.

Audit observed that having approved the design, it was the duty of the Company to assess the requirement. However, it did not assess the capacity of gear boxes required to suit the modifications to the existing coal handling plant to cater to the requirement of the Unit. The fact that the Company did not approach the supplier to sort out the problem and took five years to approach the original equipment manufacturer for rectification shows the lethargy of the Company towards achieving its goals.

---

[35] 17.02.2013 to 19.03.2013 = 31 days × 6 MU = 186 MU
21.03.2013 to 02.08.2014 = 500 days × 3 MU = 1,500 MU
03.08.2014 to 18.10.2014 = 77 days × 6 MU = 462 MU
Total = 2,148 MU.

[36] 2013-14 – excess HFO used per unit (27.67 ml/kWh - 1 ml/kWh) × units generated 80,57,84,000 kWh × cost of HFO per ml ₹ 0.05001615/ml *plus*
2014-15 - excess HFO used per unit (32.28 ml/kWh - 1ml/kWh) × units generated 30,57,98,000 kWh × cost of HFO per ml ₹ 0.04792029/ml.

[37] Safety co-efficient for gear boxes.

As a result, generation of 107.86 MU valued ₹ 39.17 crore was lost between April 2011 and March 2016.

Failure of gear boxes of Air Pre-Heater

2.1.10.4. Air Pre-Heater (APH) is an important auxiliary of the boiler, where flue gas with fly ash continuously passes through the heating elements (**refer Picture No. 2.1.1**). It is a slow speed rotating equipment driven by electrical motors, which are connected to gear boxes. It recovers the waste heat from the outgoing flue gas of a boiler and transfers the same to the combustion air, heating the pulverised coal. It increases boiler efficiency, ensures stable combustion in furnace, hastens load variations and dries coal effectively for easy pulverization and combustion.

BHEL supplied and erected (April 2010) APH (with gear boxes APH-A and B) along with the boiler package. The APH-A and B gear boxes had problems of heavy noise and vibration since beginning. The Company carried out repair works on its own between September 2011 and November 2015 for nine times without referring the issue to the supplier. It was only in November 2015 that it intimated BHEL about the problems and sought free replacement.

The request of the Company was turned down by BHEL as it came after five years of supply of the equipment.

As a result of the Company's failure to refer the matter to the supplier in time, and its tardy approach towards maintenance of its equipment, the Unit was shut down for 10 days[38], resulting in loss of generation of 60 MU.

Consumption Parameters

Excess Auxiliary Power Consumption

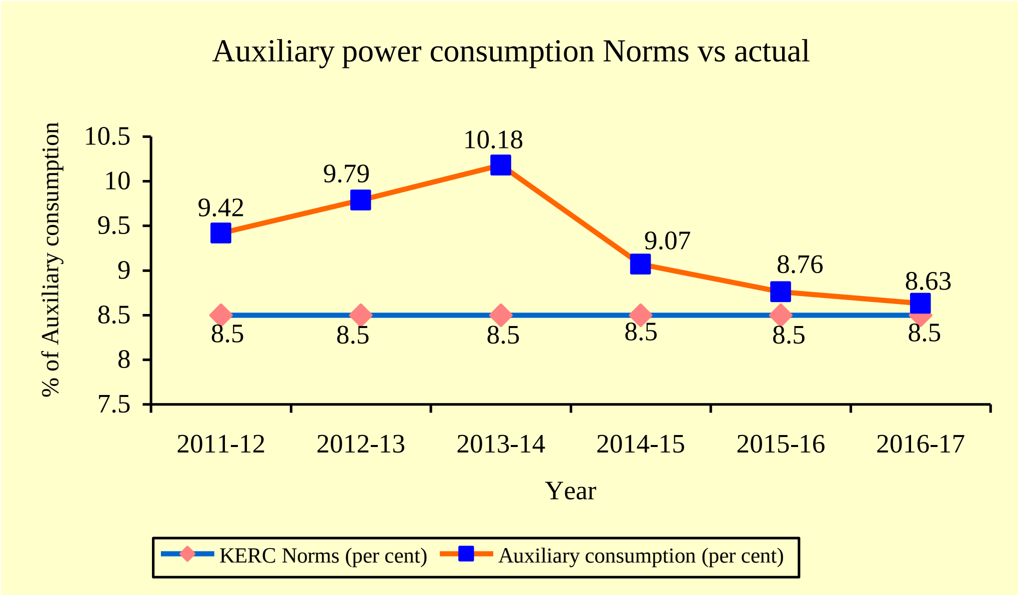
2.1.11.1. The auxiliary power is the quantum of energy consumed by auxiliary equipment of the generating station and transformer losses within the generating station, expressed as a percentage of the gross energy generated at the generator terminal.

The Karnataka Electricity Regulatory Commission (KERC), in its tariff order (February 2015), approved normative auxiliary consumption of energy for the Unit-8 at 8.5 *per cent* of generation from its date of commercial operations (December 2010). Audit observed that the Unit did not adhere to the normative auxiliary consumption of 8.5 *per cent* as allowed by the KERC in any of the years. Conversion of dry ash into wet ash for letting it to ash pond and lower cycles of concentration of water discussed in subsequent paragraphs were assessed as some of the reasons for excess auxiliary consumption.

The graphical representation of norms and actual auxiliary power consumption for the years 2011-12 to 2016-17 are given in Chart No. 2.1.2:

[38] January 2012– 4 days, August 2013 – 2 days, December 2015 – 3 days and January 2016 –1 day.

Chart No. 2.1.2: Auxiliary consumption – actual *vis-à-vis* norms



The continuous higher auxiliary consumption resulted in depriving the consumers of the State of energy to the extent of 42.64 MU for the period from 2011-12 to 2016-17, as the same was consumed by auxiliary equipment of the generating Unit. Considering the gradual improvement recorded in recent years, the Unit may achieve the norm in the coming years. However, in the first four years it did not limit its consumption, resulting in loss of ₹ 11.37[39]crore to the Company.

Excess consumption of water

2.1.11.2. Water is one of the key input requirements for thermal power generation. Water is required for cooling the condenser, removal of heat generated in plant auxiliaries, ash disposal and various other captive uses. More than 80 *per cent* of input water is required for the cooling tower in coal-based thermal power stations.

Water was drawn from river Krishna through raw water intake pump house. The station deployed re-circulating cooling water system to meet the cooling water requirement by adopting natural draft cooling towers **(refer Picture No. 2.1.1)**. Government of Karnataka made an allocation of 2.8 Thousand Million Cubic feet (TMC) of raw water to meet cooling and consumptive water requirement of RTPS. The Detailed Project Report (DPR) of the Unit envisaged bringing down the consumption level to 2.01 TMC for RTPS by adopting 2.5 Cycles of Concentration (COC)[40]. It also envisaged reduction of consumption to 1.64 TMC by increasing COC to four from the date of operation (December 2010). The consumption of water, thus, works out to 3.08 cum/MWh for RTPS[41]. The MoEF also gave (2006) environment clearance subject to adherence with the above norms.

[39] Excess consumption × cost of energy sold.
[40] The water was re-circulated 2.5 times in the cooling towers.
[41] One TMC = 2,83,16,846.59 m^3, therefore 1.64 TMC = 1.64 × 2,83,16,846.59/1,720 MW × 24 hours × 365 days.

Audit observed from the Water Analysis Report of the Unit for the period from April 2012 to February 2017 that the Unit did not achieve its adopted COC of 2.5, let alone achieving the required COC of four in any of the years. Average COC achieved during the period ranged between 1.5 and 2.3. The actual consumption of water per MWh was in the range of 5.1 to 7.9 cum as against the norm of 3.08 cum/MWh during the years 2013-14 to 2016-17[42].

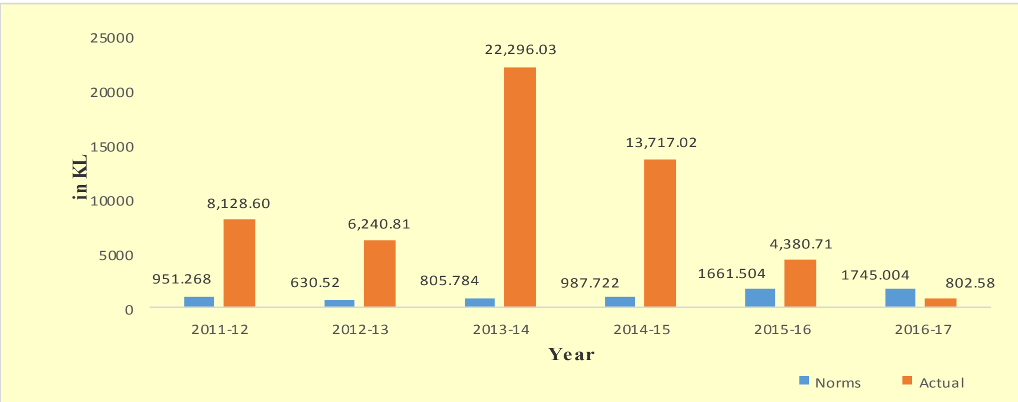
The lower levels of COC were attributed to higher blow downs[43] and loss arising due to evaporation. The Company's failure to increase COC as per the environmental clearance and also as envisaged in DPR has resulted in non-reduction of raw water usage to 1.64 TMC. As the consumption of water was maintained for the whole station, actual water consumption of the Unit-8 alone (only Water Analysis Report was available separately) could not be ascertained. However, the lesser COC indicated high consumption of water.

Further, the consumption of water per MWh was almost double the norms prescribed by MoEF. This was mainly due to conversion of dry ash into wet ash for pumping into ash pond and ineffectiveness of the Cooling Tower. As against the norm of 69.38 *per cent*, the percentage of effectiveness[44] of cooling tower was between 22.22 and 64.29 (on a test-check of 12 days of hourly data between December 2014 and February 2015, for which details of temperature were available).

Excess consumption of Heavy Fuel Oil

2.1.11.3. The Heavy Fuel Oil (HFO) is used as a start-up fuel in thermal power stations and generally little oil is consumed for flame support. KERC, in its tariff order (February 2015), while approving Power Purchase Agreement and determining tariff for a period of 25 years from commercial operation date, *i.e.* from 11.12.2010, allowed Specific Fuel Consumption (SFC)[45]of 1 ml/kWh for coal-fired stations. The graphical representation of the consumption of HFO in the Unit, as against the norms is given below:

Chart No. 2.1.3: HFO consumption - actual *vis-à-vis* norms



42 Data not available for 2011-12 and 2012-13.
43 Water was pulled from cooling towers to remove mineral build up caused by evaporation in this process. Also used for removing scales.
44 It is the difference between cooling water inlet temperature and ambient wet bulb temperature.
45 Refers to oil consumption, *i.e.* HFO.

Audit observed that during the period from 2011-12 to 2015-16, the SFC remained more than the norms fixed by KERC with instances of HFO consumption reaching as high as 56.279 ml/kWh in October 2014. The HFO consumption was, however, within the norms in 2016-17. Further, Plant Load Factor during the period indicated that the Unit was not even running at half of its capacity, indicating that the number of interruptions in generations were more. The Unit consumed excess HFO to the extent of 49,726 KL during the period 2011-12 to 2015-16, resulting in a loss of ₹ 234.75[46] crore.

Audit observed that the reasons mainly attributed for excess consumption of HFO were running the Unit under partial load on many occasions due to system constraints and the problems faced with its equipment.

Excess consumption of coal due to excess Station Heat Rate

2.1.11.4. Station Heat Rate (SHR) is one of the parameters for assessing the efficiency of thermal power station representing the heat energy required in Kilo Calorie (kcal) to generate one kilo watt hour (kWh) of electrical energy. The Unit-8 was designed with a SHR of 2,253 kcal/kWh. However, Karnataka Electricity Regulatory Commission (KERC) fixed the SHR at 2,399 kcal/kWh for tariff purpose. Heat rate increases due to under-performance of equipment, leading to more consumption of coal, as it uses more energy than required to produce one unit of power.

The SHR at which the Unit was operated and the deviation from design and norm during the period from 2011-12 to 2016-17 are given in Table below:

Table No.2.1.5: Actual Station Heat Rate *vis-à-vis* norm

(in kcal/kWh)

Sl. No.	Particulars	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
1	Heat Rate at which the Unit was operated	2,623	2,706	2,982	2,689	2,501	2,449
2	Deviation of Heat Rate against KERC norm	224	307	583	290	102	50

Source: Monthly Progress Reports of the Unit-8.

Audit observed that the deviation in SHR varied between 50 kcal to 583 kcal above the norm fixed by KERC. The excess SHR resulted in excess consumption of coal by 4.22 lakh MT amounting to ₹ 153.45 crore during the period 2011-12 to 2016-17. The main reasons for the high SHR were deviations from key operational parameters and not running the Unit at the optimum load from March 2013 to August 2014 due to reasons explained in **Paragraph 2.1.10.2**.

Unexplained consumption of coal

2.1.11.5. The Company received raw coal from various sources through rail. Coal received was tippled and conveyed to primary and secondary crushers

[46] At weighted average landed cost of HFO.

through conveyors before storing in the bunkers for station operations. Coal required for generation was drawn from bunkers to coal mills and then fed in to boilers. In order to measure the quantity of coal fed in to the boiler, the Company installed gravimetric coal feeders[47] for this Unit.

The boiler was designed to feed coal at 160 Tonnes Per Hour (TPH). However, as per the coal consumption records, the average coal feeding ranged between 169 TPH and 176 TPH, which was beyond prescribed limits. As the Unit was not using gravimetric system, coal feeding was not recorded in the Unit Control Board in Coal Handling Plant Control Room. Therefore, recording the consumption of coal requires a relook as it was not accurate.

The Company assured[48] that efforts would be made to ensure accuracy of coal consumption figures.

Conclusion of Audit Objective 1:

***Operational Performance* -** The performance of Unit-8 was sub-optimal during the first four years upto 2014-15, the shortfall in generation being 4,077.71 MU[49]. The loss of generation due to failure of equipment was 3,856.784 MU[50] during the said period. The Unit did not meet the operational parameters during any of these four years. The Management could have avoided much of the loss of generation due to failure of equipment, like Electrostatic Precipitator, Coal Handling Plant and Air Pre-Heater, and ensured that the Unit lived upto the expectation of the State, which was reeling under severe power crisis.

***Consumption Parameters* -** The auxiliary consumption of the Unit was above nine *per cent* till 2014-15 as against the norm of 8.5 *per cent*. Though the Unit steadily improved the consumption pattern thereafter, it could not limit the consumption within the norm. Water consumption was high, almost double the limit, owing to conversion of dry ash into wet and ineffective functioning of cooling tower. Heavy Fuel Oil also recorded high consumption owing to repeated failure of equipment in the initial four years. Consumption beyond limit resulted in financial loss and impacted the environment as HFO and Coal have a direct negative effect on it. Excess water consumption affected water conservation policy of the Government. These variations happened owing to lack of internal control mechanism.

Recommendation 1: The Company may consider ensuring strict compliance to operation and maintenance requirements, as recommended by the manufacturers, through a robust internal control mechanism, so that any defect noticed can be brought to the notice of the manufacturers immediately.

---

[47] Gravimetric Feeders provide verification of the "as used" fuel to assist in the compliance with established standards. Accurate weights are especially useful in performance testing.

[48] In the Exit Conference held on 9 October 2017.

[49] Minimum generation required 7,453 MU *less* actual generation 3,375.294 MU for first four years.

[50] Barring Gear failure 1,540.924 MU + ESP failure 2,148 MU + Gear Boxes failure 107.86 MU + Air Pre Heater failure 60 MU = 3,856.784 MU.

Recommendation 2: The Company may consider strengthening the Efficiency Section of the Unit-8, which was responsible to monitor the performance parameters.
Recommendation 3: The Company may reduce blow-downs to achieve the envisaged norm to reduce consumption of water.

Environmental Issues

2.1.12. The second audit objective was to assess whether the Unit-8 was able to keep associated environmental pollution levels within the permissible limits through appropriate remedial measures. Audit observed that the Unit had separate data only in respect of stack emission. Since all other environmental parameters were recorded for the Station as a whole, it was practically not possible to have data for each Unit. In the absence of such separate data, Audit could analyse only stack emission and ash management for the Unit. Audit observations are discussed below:

Absence of long-term plan for ash disposal

2.1.12.1. The by-product of combustion, *i.e.* coal combustion residues, is called ash. *Bottom ash* was collected at the bottom of the boiler units while fly ash was collected in electrostatic precipitators and economiser hoppers. Normally, in a fossil-fired boiler, 20 *per cent* of the total ash was bottom ash and the balance 80 *per cent* was fly ash.

Indigenous coal in India, having diverse quality of coal reserves, contains 30 to 45 *per cent* ash. Disposal of huge quantity of fly ash was a critical issue in our country. It was detrimental to animal and plant life, polluted environment and required large areas of land as well as water, which are scarce now-a-days, for its disposal in the form of slurry. Ministry of Environmental and Forests (MoEF) notification (November 2009) stipulated 100 *per cent* ash utilisation within four years from the date of its operation. The environmental aspects were to be considered while planning and designing the Ash Pond. The main environmental concerns related to ash were air pollution, ground water contamination and surface contamination. Therefore, planning disposal of ash was a significant activity, which a thermal plant management should consider. An Ash Pond is an engineered structure for the disposal of bottom ash and fly ash. The wet disposal of ash into Ash Pond was the most common ash disposal method. The Detailed Project Report of Unit-8 contemplated 100 *per cent* utilisation of fly ash and as such Ash Ponds were meant for only bottom ash and designed likewise.

RTPS had two Ash Ponds for the purpose of disposal of ash generated from the station. Ash Pond No.1 was fully filled up in 2002 and Ash Pond No.2 was filled upto 81 *per cent* of its capacity by June 2016 itself, though it was expected to serve for the life of the Unit (25 years from date of COD - till December 2035). The Company, in joint venture with BHEL, put up the Yeramaras Thermal Power Plant (YTPS), a 2 × 800 MW plant near RTPS. The Ash Pond of RTPS was also to be used for the disposal of ash from

YTPS. However, the Ash Pond-2 was sufficient to take care of the requirements of the two plants (RTPS and YTPS) only till the end of 2017, as:

- YTPS was established (in March 2017) without an Ash Pond. The Company allowed ash from YTPS to be disposed of to its own Ash Pond, *i.e.* Ash Pond-2.
- The agency, which had an agreement (August 2009) with the Unit-8 to lift 3.5 lakh tonnes of fly ash per annum, could not fully lift the ash as the dry ash handling system was not ready till November 2011. The agreement with the agency was cancelled (September 2014) as the agency did not fulfil the conditions of contract by selling ash to a third party. As a result, fly ash too was discharged to the Ash Pond in slurry form, filling the pond pre-maturely.
- The Unit could not completely evacuate fly ash during the period from December 2010 to February 2013 due to malfunctioning of fly ash evacuation system (**refer Paragraph 2.1.10.2**).

A total of 9,24,750.15 MT of ash was disposed of by the Company in wet form from the date of commercial operation till November 2016 due to non-commissioning of silo (dry fly ash evacuation system), cancellation of agreement and non-finalisation of agency to collect the fly ash in dry form.

In case the disposal of ash from YTPS also was considered, the existing Ash Pond would be filled up by the end of December 2017. The Ash Pond was sufficient to cater to the requirement of RTPS upto April 2019. The Company, however, was planning augmentation of existing Ash Pond for a higher holding capacity. Even with this higher capacity, the Ash Pond will last[51] only till October 2021 (if Ash is disposed from RTPS only) and till February 2019 (if Ash is disposed from both RTPS and YTPS).

Based on the report of the Committee formed (June 2015) to study ash disposal, the Technical Director of the Company proposed three options in January 2016, which was referred to the Technical Advisory Committee in March 2017. The Board approved it in April 2017. Accordingly, out of three proposed options, the option of raising the height of the Ash Pond by five meters and the length by 3.20 kms was taken up. The Company opened the bids for this work in November 2017 and was yet (November 2017) to approve the bidder.

Considering that a minimum of one month would be taken to finalise the bidder and thereafter, nine months would be required to complete the work, the earliest time by which the work can be completed, if immediately started, is only September 2018. With the likelihood of the Ash Pond being filled up in December 2017, the action plan for disposal of ash between December 2017 and September 2018 was still absent. In the absence of any viable plan for ash disposal, the generation of electricity in RTPS was liable to be stopped for this period, which may lead to loss of production of 30.50 MU of energy per day.

---

[51] Generation from YTPS was yet to be started (November 2017) though COD was 29th March 2017.

In the event that the augmentation of the Ash Pond is not completed by September 2018 as aforesaid and there being no viable action plan for ash disposal still in place by then, this loss will continue to mount, also severely affecting power supply to this power deficit State.

Considering the life of the power plant as 25 years, it was evident that the Company did not have any long term plan for disposal of ash. As a result, there is likelihood of the Company stopping its operation by October 2021 on account of this issue.

By converting fly ash into slurry, the Unit was using excessive water, which was scarce. Added to this, by filling the Ash Pond at a faster pace than planned, there was every likelihood of the ash spilling over to neighbouring places and causing pollution of water, agricultural lands, *etc*. at a high human cost.

The Company, during the Exit Conference, stated that action would be initiated to ensure 100 *per cent* disposal of fly ash to prevent ash pond from being filled up by 2019.

Failure to achieve Bureau of Energy Efficiency Norms

2.1.12.2. The Bureau of Energy Efficiency (BEE)[52] introduced (March 2012) Perform Achieve and Trade (PAT) as one of the initiatives towards enhancing energy efficiency in Thermal Power Plants. These targets were to be achieved by the Units by 2014-15.

PAT is a market-based mechanism to enhance cost-effectiveness of improvements in energy efficiency in energy-intensive large industries through certification of energy savings that could be traded. Designated Consumers would receive such certificates based on their performance and the under-performers are penalised by making them buy such certificates. Thus, the achiever and the non-achiever are benefited and penalised respectively.

The BEE set a target of Net Heat Rate of 2,743 kcal/kWh for RTPS to be achieved for the year 2014-15. As against this target, the station achieved a higher net heat rate of 2,881.72 kcal/kWh and was liable to purchase 97,914 Energy Saving Certificates (ESCerts) worth ₹ 107.39[53]crore. Increased heat rate induces more consumption of coal, which in turn pollutes the air. The performance of RTPS was marred by that of the Unit-8, which maintained a higher net heat rate throughout the period of PAT cycle[54] and as a result, the consumption of coal increased overall (**refer Paragraph 2.1.11.4**).

[52] A statutory body under Ministry of Power, Government of India, set up under the provisions of the Energy Conservation Act, 2001.

[53] One EScert = One MT of oil equivalent of energy, *i.e.* ₹ 10,968 as notified by MOP.

[54] First PAT cycle: 2012-13 to 2014-15.

Higher Stack Emission

2.1.12.3. The Karnataka State Pollution Control Board (KSPCB), the State regulating authority to ensure compliance with the provisions of Acts relating to Environmental Laws, fixed norms for air pollution, trade effluents, noise and stack emission. As the recordings of values of all these elements, except stack emission, were maintained for the station as a whole, analysis of other elements for the Unit could not be carried out separately.

2.1.12.4. KSPCB fixed the Suspended Particulate Matter (SPM) level for stack emission in respect of the Unit at 100 mg/Nm^3. Audit observed that the Unit recorded stack emission level between 74 mg/Nm^3 and 123 mg/Nm^3 beyond the level of 50 mg/Nm^3 as per the design of ESP in all the months during the period 2013 to 2017 and exceeded the KSPCB norms only in three months (2013-14), mainly due to poor performance of ESP.

Conclusion regarding Environmental issues

Audit observed that the Unit could not achieve 100 *per cent* disposal of fly ash and comply with the guidelines issued by the Ministry of Environment and Forests in the interest of protecting environment. The Ash Pond, meant for only bottom ash (20 *per cent* of total ash), was filled with fly ash (in the form of slurry). Besides, slurry from neighbouring Yeramaras Thermal Power Station was also planned to be disposed of in the same Ash Pond. This would fill the Ash Pond before its envisaged life-span, thereby endangering the neighbourhood and threating premature closure of the plant. The Unit was responsible for higher Heat Rate, which prevented the Station from achieving the Perform Achieve and Trade norms. This caused extra expenditure owing to purchase of Energy Saving Certificates (ESCerts) worth ₹ 107.39 crore. The Stack Emission, though within the limits prescribed by Karnataka State Pollution Control Board, was beyond the design of the ESP.

Recommendation 4: **The Company may ensure that all avenues for use of ash like in building construction, road works, paint industry, *etc*. are tapped to make sure that 100 *per cent* disposal of fly ash is achieved.**
Recommendation 5: **The Company may mandatorily enforce the conditions in the ash disposal contract to ensure 100 *per cent* disposal of fly ash. This would enable the Company to overcome the crisis of Ash Pond being filled up much earlier than planned and avoid stoppage of generation in the near future.**
Recommendation 6: **The Company may regularly monitor emission to ensure that emission is within the design parameters of Electrostatic Precipitator.**

The Performance Audit Report was issued to the Government in September 2017. The reply of the Government was yet to be received (November 2017).

Conclusions

The Audit Objectives were designed to assess whether the operational efficiency of the Unit was achieved, leading to optimal output, and whether the Unit was able to keep associated environmental pollution level within prescribed limits.

The Unit was expected to go on full throttle from the date of commissioning by maintaining norms as prescribed by Karnataka Electricity Regulatory Commission. The performance was sub-optimal during the first four years upto 2014-15. The major reasons attributed towards this were failure of equipment and the same could have been avoided by an alert management.

The Unit failed to keep various parameters, *viz.* Auxiliary Power Consumption (APC), Station Heat Rate, Coal Consumption, Heavy Fuel Oil Consumption and Water Consumption, within norms. The main reasons were adoption of derived figures for APC, auxiliary equipment working below their rated capacity, operating the Unit at sub-optimal load and ineffectiveness of Cooling Tower.

The Company also did not have a provision for disposal of Ash in wet form for the entire life of the plant.

2.2 Performance Audit on *'Implementation of Projects by Cauvery Neeravari Nigama Limited'*

Executive Summary

Introduction

The Cauvery river originates at Talakaveri in Kodagu district of Karnataka and finally flows into the Bay of Bengal. The Cauvery river basin extends over the States of Karnataka, Kerala, Tamil Nadu and the Union Territory of Puducherry. The Cauvery water-sharing dispute existed amongst these States since the 19th century. The Inter-State Water Disputes Tribunal on the directions of the Hon'ble Supreme Court, in its Award (February 2007) allocated 270 tmc of water to Karnataka in a year and also specified quantum of water to each project. It also specified the area to be cultivated under each project, which totalled to 18.85 lakh acres (approx. 7,628 sq. km.). As the States did not agree to the Award of the Tribunal, they filed appeals before the Hon'ble Supreme Court, on which the final judgement was awaited (November 2017).

State Water Policy

The Government of Karnataka (GoK) formulated the State Water Policy, 2002 (SWP), for creation of irrigation potential by 2005 (target year) and construction of Field Irrigation Channels (FICs) by 2006 to achieve the ultimate irrigation potential of 45 lakh hectares (ha) in the State. The State Water Policy also emphasised Participatory Irrigation Management.

Cauvery Neeravari Nigama Limited (*CNNL*)

The Cauvery Neeravari Nigama Limited (Company) was incorporated in June 2003 under the Companies Act, 1956, to complete the works of and to maintain, operate, improve or modernise on-going Major and Medium Irrigation Projects including Lift Irrigation Works and Minor Irrigation and such works entrusted to the Command Area Development Authority (CADA) in the Cauvery basin.

The Company, under its jurisdiction, executes and maintains four Major Irrigation Projects, 19 Medium Irrigation Projects and 25 *Anicut* canals. It also executes works of Lift Irrigation Schemes, Drinking Water Schemes (DWS) and Restoration and Rejuvenation of rivers and tanks, and other works, which fall in the command area of the irrigation projects. Of the 18.85 lakh acres of land allowed to be cultivated under various projects, as per the Award of the Inter-State Water Disputes Tribunal, an area of 15.55 lakh acres fell in the jurisdiction of projects of the Company and the remaining 3.30 lakh acres (of the 18.85 lakh acres) fell under the jurisdiction of the Minor Irrigation Department of the Government of Karnataka.

Audit Objectives

The Audit Objectives were to assess whether:

- Proper planning was in place while taking up the projects; and
- The works were executed within the stipulated time frame and the implementation was effective in achieving the objectives set out in the Project Reports.

Out of the 19 projects selected for review, the works in respect of:

- Three projects were completed in time;
- Seven projects were completed after delays ranging from three months to four years from their scheduled date of completion;
- Seven projects are delayed upto four years from their scheduled date of completion and are yet to be completed; and
- One project, though delayed, its date of completion was yet to be due (as of November 2017) and another project was yet to be taken up.

Audit Findings

- ➢ Lacunae in planning as the Company was not preparing Zone-wise Annual Works Programmes, not having a database for selection of projects and carrying over 3,427 number of spillover works (57 *per cent* of total works) in its Annual Works Programmes. (*Paragraphs 2.2.11.2, 2.2.11.3 and 2.2.11.4*)
- ➢ Lack of priority in planning for potential oriented works and creation of Field Irrigation Channels (FICs) resulted in a total of 5,968 ha of potential oriented work and 42,400.68 ha of FICs remaining incomplete even after a lapse of more than 12 years, which should have been completed by 2005 and 2006 respectively as per State Water Policy. (*Paragraphs 2.2.11.6 and 2.2.11.7*)
- ➢ Deficiencies were noticed while preparing the estimates of the projects due to non-compliance with Karnataka Public Works Department Code. (*Paragraph 2.2.11.10*)
- ➢ Implementation of the projects suffered due to land acquisition problems, delays in approval of designs, non-synchronisation of associated works with main works and other administrative reasons, all of which were avoidable factors. (*Paragraph 2.2.12.1 to 2.2.12.4*)
- ➢ Adequate attention was not given to Inspection Reports of the Quality Control Divisions. (*Paragraph 2.2.12.6*)
- ➢ Monitoring of projects was inadequate due to lack of proper reporting system to the Board of Directors. (*Paragraph 2.2.12.7*)
- ➢ Benefits envisaged in the Project Reports of filling up of 81 tanks for providing drinking water to 310 villages, providing water to *suffering achkat* of 3,200 acres and efforts to restore and rejuvenate the Arkavathy river, were delayed and the objectives were not realised in time. A total expenditure of ₹ 560.32 crore was incurred on this. (*Paragraph 2.2.12 and Appendix-4*)

Introduction

2.2.1. The geographical area of Karnataka is 1.92 lakh square kilometres (sq. km.) with a cultivable area of 1.41 lakh sq. km. Cauvery river basin is one of the seven river basins in Karnataka. It extends over the States of Karnataka (42 *per cent*), Kerala (4 *per cent*), Tamil Nadu and the Union Territory of Puducherry (54 *per cent*), encompassing an area of 85,115 sq. km. The Cauvery river originates at Talakaveri in Kodagu district of Karnataka and finally flows into the Bay of Bengal. The location of the Cauvery basin and its spread in the different States is given below:

Chart 2.2.1: **Map of the Cauvery basin**

Source: Records of the Company.

The Cauvery basin in Karnataka is 34,273 sq. km. spread across 11 districts. The major rivers and tributaries of Karnataka flowing in this basin in Karnataka are Harangi (50 km.), Hemavathy (245 km.), Lakshmantirtha (131 km.), Kabini (230 km.), Shimsha (221 km.), Suvarnavathi (88 km.), Arkavathy (161 km.) and the main river Cauvery (381 km.).

2.2.2. The Cauvery water-sharing dispute existed amongst the southern States (the present States of Karnataka, Tamil Nadu, Kerala and Union Territory of Puducherry) since the 19th century. The Inter-State Water Disputes Tribunal (ISWDT) constituted (June 1990) on the directions of the Hon'ble Supreme Court, in its Award (February 2007) allocated 270 tmc of water to Karnataka in a year and also specified quantum of water to each project. The Inter-State Water Disputes Tribunal also specified the area to be cultivated under each project, which totalled to 18.85 lakh acres (approx. 7,628 sq. km.). As the States did not agree to the Award of the Tribunal, they filed appeals before the

Hon'ble Supreme Court, on which the final judgement was awaited (November 2017).

State Water Policy

2.2.3. The Government of Karnataka (GoK) formulated the State Water Policy, 2002 (SWP) for creation of irrigation potential by 2005 (target year) and construction of Field Irrigation Channels (FICs) by 2006 to achieve the ultimate irrigation potential of 45 lakh hectares (ha) in the State. The State Water Policy also emphasised on Participatory Irrigation Management, which envisaged creating a sense of ownership of water sources and irrigation systems among the users of water for promoting economy in water use and preservation of the system, achieving optimum utilisation of available resources, equity in distribution *etc.*

***Cauvery Neeravari Nigama Limited* (*CNNL*)**

2.2.4. The Cauvery Neeravari Nigama Limited (Company), a Public Sector Undertaking, was incorporated in June 2003 under the Companies Act, 1956. The main objectives of the Company are:

(i) to complete the works of on-going Major and Medium Irrigation Projects[55];

(ii) to include Lift Irrigation Works[56] and such works of Minor Irrigation and Command Area Development Authority (CADA)[57]; and

(iii) to maintain, operate, improve or modernise the Irrigation Projects including Lift Irrigation Works and such works of Minor Irrigation and CADA, in the Cauvery basin entrusted to it by the State Government.

The Company, under its jurisdiction, executes and maintains four Major Irrigation Projects, 19 Medium Irrigation Projects and 25 *Anicut*[58] canals. It also executes works of Lift Irrigation Schemes, Drinking Water Schemes (DWS) and Restoration and Rejuvenation of rivers and tanks, and other works[59], which fall in the command area of the irrigation projects. Of the 18.85 lakh acres of land allowed to be cultivated under various projects, as per the Award of the Tribunal, an area of 15.55 lakh acres fell in the jurisdiction of projects of the Company and the remaining 3.30 lakh acres (of the 18.85 lakh acres) fell under the jurisdiction of the Minor Irrigation Department of the Government of Karnataka.

---

[55] A Project, which envisages only irrigation, is called an 'Irrigation Project'.

[56] Lift Irrigation Works/Lift Irrigation Schemes are schemes where pumping machinery was installed on the banks of rivers, streams, canals, foreshore of storage reservoirs, *etc.* for pumping water and transporting it through a Rising Main to higher elevations where water cannot be supplied by gravity, for purposes of irrigation of land, filling up of tanks, drinking water *etc*.

[57] CADA functions separately under the Water Resources Department (WRD). Refer Glossary.

[58] A structure across the river (like a barrage).

[59] The Company also executes works in the nature of construction of roads, drilling of borewells and other works, under Schedule Castes Plan and Tribal Sub Plan of the State in the Command Area.

Organisational Structure of the Company

2.2.5. The Chief Minister of the State and the Minister for Water Resources are the ex-officio Chairman and Deputy Chairman respectively of the Company. The administrative control of the Company is with the Water Resources Department (WRD), headed by the Principal Secretary, who is also a Director in the Company.

The Company is headed by the Managing Director who monitors the day-to-day activities. The Government gives administrative approvals for the major projects. The projects/works are scrutinised by the Technical Sub-committee (TSC) and Estimates Review Committee (ERC) and approved by the Board of Directors or by Chief Engineer based on Financial delegations. The tenders for the works are scrutinised by the Tender Scrutiny Committee. The projects/works taken up are monitored at the field level by the Chief Engineers at three Zonal Offices, Superintending Engineers at six Circle Offices and a Design, Quality Control and Technical Vigilance Wing and Executive Engineers at 28 Divisions.

Audit Objectives

2.2.6. With the formulation of State Water Policy in 2002, creation of the Company as a Special Purpose Vehicle in 2003 and the Award of the Tribunal in 2007, it was imperative that the Company had a vision for development of irrigation projects in the Command Area of the Cauvery basin.

Preliminary assessment revealed deficiencies in the planning and implementation of projects leading to non-achievement of objectives set out in the Policy documents and respective Project Reports. In this backdrop, the Performance Audit on 'Implementation of Projects by CNNL' was undertaken to assess whether:

- Proper planning was in place while taking up the projects; and
- The works were executed within the stipulated time frame and the implementation was effective in achieving the objectives set out in the Project Reports.

Scope of Audit and Audit Methodology

2.2.7. The total expenditure incurred by the Company during the period 2012-13 to 2016-17 was ₹ 6,884.59 crore (₹ 4,035.46 crore towards major capital expenditure and ₹ 2,849.13 crore on other expenditure[60]). Under major capital expenditure, ₹ 2,781.96 crore was incurred on four categories[61] *viz*. Potential

[60] Includes expenditure on maintenance (₹ 302.18 crore), establishment (₹ 527.88 crore), creation of Field Irrigation Channel (₹ 16.45 crore), Land acquisition (₹ 390.07 crore), other minor capital expenditure works (₹ 451.63 crore), Scheduled Castes Plan/Tribal Sub-Plan/Special Development Plan (₹ 738.99 crore), Dam Rehabilitation and Improvement Programme (₹ 41.66 crore) and other finance and debt serving charges (₹ 380.27 crore).

[61] Expenditure incurred on two categories was excluded from scope of the review *viz*. Modernisation of Anicut canals (₹ 1,210.13 crore) as it was not possible to evaluate the objectives in view of deficit rainfall during 2015-17 and Restoration and Rejuvenation of tanks (₹ 43.37 crore) considering materiality of individual works in them.

oriented works, modernisation and improvement of works, Drinking Water Scheme/Tank Filling Scheme and Restoration and Rejuvenation of rivers.

Audit adopted the method of Stratified Sampling based on expenditure under these four categories and a total of 19 out of 72 projects (26 *per cent*), covering an expenditure of ₹ 1,433.41 crore out of the total ₹ 2,781.96 crore (52 *per cent*).

The Performance Audit was conducted between April and June 2017 and covered the review of selected works executed by 14[62] out of 28 divisions of the Company during 2012-17. The records maintained at the Company, Water Resources Department and Command Area Development Authority in relation to the selected projects were reviewed.

2.2.7.1. The methodology adopted for achieving the Audit Objectives involved explaining the audit objectives, criteria and scope of audit to the Government and Management during an Entry Conference, which was held on 18 April 2017. During the course of audit, audit observations were issued to the Management seeking their views. The Performance Audit Report was issued to the Government and the Management and the Exit Conference was held on 16 October 2017 with the Government. The Government furnished its replies on 16 November 2017. The views of the Government/Management were suitably incorporated in the Report.

Audit was conducted in conformity with the Auditing Standards issued by the Comptroller and Auditor General of India.

Audit Criteria

2.2.8. The Audit Criteria adopted for achieving the Audit Objectives are derived from the following sources:

- State Water Policy 2002, Award of the Inter-State Water Dispute Tribunal, Guidelines and Circulars issued by the Planning Commission, GoI, Ministry of Water Resources, GoI and Central Water Commission, GoI, and also the Government of Karnataka (GoK) and the Committees formed by GoK;

- The Karnataka Irrigation Act, 1965, and Rules, Karnataka Financial Code, 1958, Karnataka Public Works Department Code, 1965, and 2014, Karnataka Transparency in Public Procurement Act, 1999, and Rules, 2000;

- Land Acquisition Act, 1894, The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013; and

- Project Reports, Contract Agreements, Circulars and directions issued by the Company.

[62] Belur, Channarayapatna, Turuvekere, Gorur, Hebbur, Yediyur, Nagavalli, Tumakuru, Hunsur, Kushalnagar, Nanjangudu, Krishna Raja Sagar, VC Division and Ramnagar.

Acknowledgment

2.2.9. Audit acknowledges the cooperation extended by the Water Resources Department of the GoK, the Management of the Company and the Command Area Development Authority in facilitating the conduct of the Performance Audit.

Audit Findings

Status of the Projects

2.2.10. The status of the 19 test-checked projects and achievement of the objectives envisaged in their Project Reports are given in **Appendix-4**. The summary of their status is given below:

Out of the 19 projects selected for review, the works in respect of:

- Three projects[63] were completed in time;
- Seven projects[64] were completed after delays ranging from three months to four years from their scheduled date of completion;
- Seven projects[65] were delayed upto four years from their scheduled date of completion and were yet to be completed; and
- One project,[66] though delayed, its date of completion was yet to be due (as of November 2017) and another project[67] was yet to be taken up.

In order to assess the causes for the delay, Audit analysed the Planning and Implementation of the projects under two Audit Objectives.

Objective 1*: *Whether proper planning was in place while taking up the projects.

Planning

2.2.11. Planning is a vital process for taking up a project. For efficient and effective utilisation of water, the need for a Comprehensive Plan for the river basin, duly considering the State Water Policy, was of vital importance. Similarly, individual projects also required to be planned so as to implement them effectively and in consonance with the overall Comprehensive Plan.

Audit examined the planning process of the Company and the findings are given below:

The planning processes of the Company

2.2.11.1. As per the procedure in vogue, pre-Budget discussions were held by the Minister for Major and Medium irrigation with the Department heads in

[63] Sl.No.10,15 and 17 of **Appendix-4**.
[64] Sl.No.4,5,7,12,13,14 and 16 of **Appendix-4**.
[65] Sl.No.1,2,3,6,8,11 and 18 of **Appendix-4**.
[66] Sl.No.9 of **Appendix-4**.
[67] Sl.No.19 of **Appendix-4**.

December/January before each ensuing financial year. Thereafter, the Company prepared a tentative budget requirement in the form of Annual Plan, for the different projects proposed to be undertaken during the ensuing year and submitted the same to the State Government for providing Budget allocation.

The State Government provided the Budget allocation (lump-sum) to the Company. The Company apportioned the same to the three Zones with directions to prepare the Annual Works Programme (AWP)[68]. Each of the Divisions (under the Zones) prepared a separate AWP (total: 28 AWPs) incorporating the works that are intended to be taken up during the year. Pronouncements[69] made in the State Budget were also considered while preparing AWP. Upon approval of AWP by the Managing Director, individual projects were taken up for tendering and execution.

The deficiencies in the Planning process are given below:

Absence of comprehensive Annual Works Programme (AWP)

2.2.11.2. The Company did not have an Internal Control Manual detailing the procedure for preparation of plans, authorities for approval of plans, role of Managing Director, Board of Directors, *etc*. This was despite the directions of Principal Secretary, WRD in March 2005 to prepare an Internal Control Manual on the lines of the manual prepared by another Nigam *viz*. Krishna Bhagya Jala Nigam Limited (KBJNL).

Audit compared the stipulations in the Internal Control Manual of KBJNL with the practice followed by the Company in the preparation of AWPs.

Audit observed that:

- The Internal Control Manual of KBJNL stipulated (Chapter XV-Capital Works) that the Chief Engineers should prepare AWP for each Zone based on the budget allocation. However, the Company's Chief Engineers did not prepare Zone-wise AWP. Each of the 28 Divisions prepared separate AWPs, which were approved by the Managing Director. As a result, a comprehensive outlook of the projects for its implementation was absent.
- The Internal Control Manual of KBJNL also stipulated that the Budget for capital expenditure be approved by the Board of Directors. The AWPs prepared in the Company, however, did not have the approval of the Board of Directors. As a result, the Board of Directors were not kept informed of the plans undertaken by the Company.

[68] Annual Works Programme is a document, which consists of amounts allocated for (a) making payments for pending bills, (b) taking up spillover works, and (c) taking up fresh works, *i.e.* those to be taken up during the ensuing year. Spillover works are those, which are tendered in earlier years and are under progress.

[69] The Chief Minister/Finance Minister of the State pronounces projects proposed to be undertaken while presenting the State Budget for the year.

The Government replied that the Company would prepare an internal control manual with detailed procedure for preparation of plans and designs by forming a subcommittee, as per the guidelines of KBJNL manual.

Large quantum of spillover works

2.2.11.3. The Annual Works Programmes (AWPs) of the Divisions were continuous 'work in process' documents, as they were approved three to twelve months after the commencement of the financial year (during the last five years in the test-checked 14 Divisions). The technical approval was accorded and the tenders for the works were invited after the approval of the AWPs.

Due to delay in approval of AWPs[70], the plans for tendering and awarding were running almost a year behind schedule with the result that there was accumulation of spillover works year after year.

On an analysis of the spillover works of three[71] (Hebbur, Turuvekere and Tumakuru Divisions) out of 14 test-checked divisions for the last five years (2012-17), it was observed that at the end of March 2017, there were 211 spillover works, which were included in AWP 2017-18. The year-wise numbers of spillover works were 2016-17 (90), 2015-16 (28), 2014-15 (33), 2013-14 (22), 2012-13 (26) and prior to 2012 (12). These included 65 works under progress, 50 works completed (pending for want of completion reports to assess actual completion), 52 works stopped, 4 works rescinded/proposed to be rescinded, 39 tenders under progress and one work was pending as payment for land acquisition was not done. The Company provided allocation of only ₹ 52.54 crore (17 *per cent*) against ₹ 310.02 crore required for completion of spillover works in respect of these three divisions. However, these divisions took up 212 fresh works costing ₹ 55.15 crore and provided a budget allocation of ₹ 16.92 crore (31 *per cent*) for these works in AWP 2017-18.

At the end of March 2017[72], the Company, as a whole, had 3,427 spillover works with estimated balance cost of ₹ 4,441.79 crore. The Company, however, provided budget allocation (2017-18) for ₹ 627.59 crore (14 *per cent*) towards the spillover works. The Company, moreover, proposed (for 2017-18) to undertake 2,580 fresh works valued ₹ 2,635.30 crore and allotted ₹ 590.72 crore (22 *per cent*).

From the foregoing paragraphs, it could be seen that the allocation for spillover and fresh works was 17 and 31 *per cent* of the cost of the project for the test-checked divisions and 14 and 22 *per cent* for the Company. Seen from the context that time given for executing majority of the works ranged from 1 to 1½ years as per contract agreements, such reduced allocations might result in a situation where:

[70] As per procedure in vogue, the approval of works in AWP was considered as administrative approval for taking up the works. Project-wise administrative approvals were obtained separately from the GoK, where the estimated cost exceeded ₹ five crore.

[71] Divisions where potential oriented works were taken up.

[72] Source: AWPs of the 28 Divisions. The AWPs were yet to be approved by the Managing Director.

(a) majority of spillover works continue to remain as such; and
(b) most of fresh works become spillovers.

The cumulative effect of such allocations was that at the end of March 2017, there were spillover works valued at ₹ 4,441.79 crore, including works, which were pending for more than five years. On a test-check of works in the 14 divisions, it was observed that works were pending for want of approval to the estimates, non-inviting of tenders for rescinded works, work pending for awarding, finalisation of tenders and land acquisition problems. The Company, did not analyse the reasons for their pendency. Not analysing the reasons for their pendency and not making suitable allocations to such works made the current Annual Works Programmes impractical documents. This resulted in the objectives of the project not being realised in time.

The Government replied that instructions were issued to complete all the pending works, particularly those pending for more than two years.

Absence of a database for selection of projects

2.2.11.4. There was no database of the status of various irrigation assets, with reference to hydrological aspects of the river basin, canals requiring improvement/modernisation, project-wise extent of *suffering achkat*[73], *etc*. so as to identify and prioritise works needed to be executed in the short and long-term. In the absence of the database, it could not be ascertained whether the projects/works included in Annual Works Programmes by the divisions were truly a priority item or whether any priority items were excluded. It was seen that projects which did not satisfy the prescribed Benefit Cost Ratio were also taken up for execution (**refer Paragraph 2.2.11.9**).

The Government replied that the Company was planning to evolve a Project Management System software, which will contain the database of all works undertaken by the Company. The reply was, however, silent about maintaining information about the status of various irrigation assets and not just details of works.

Planning for creation of irrigation potential and Field Irrigation Channels (FICs)

2.2.11.5. The State Water Policy 2002 (SWP), mentioned that prioritisation for incurring expenditure in respect of Major and Medium irrigation projects[74] would be as follows:

a) Completion of ongoing projects and committed projects;
b) Participatory Irrigation Management (PIM);
c) Operation and Maintenance; and
d) Renovation and Modernisation.

[73] *Suffering achkat* refers to an area, in which, FICs are created, but land does not receive adequate water supply for irrigation.
[74] A scheme having Cultivable Command Area more than 10,000 hectares is a Major Irrigation Project while a scheme having Cultivable Command Area between 2,000 hectares and 10,000 hectares is a Medium Irrigation Project.

Also, in irrigation projects, where reservoirs were already completed, top priority would be given to the construction of the canals and field irrigation channels in the shortest possible time and steps taken to utilise the potential created.

The SWP also stated that for implementing the above, the action agenda was to complete all on-going and committed water resource development projects by 2005 and complete the Command Area Development works by 2006.

The shortfall in creation of irrigation potential under the test-checked project (Hemavathy) is given below:

Creation of irrigation potential

2.2.11.6. The four Major Projects[75] of the Cauvery Basin were transferred to the Company upon its formation. Of this, as at the end of March 2012 (*i.e.* beginning of the Performance Audit period), irrigation potential was already created in three projects[76]. Irrigation potential was pending creation under Hemavathy Project[77] in the last stretches of Tumakuru Branch Canal (from km. 200 to km. 240) to an extent of 11,706 ha[78]. Against this, the actual achievement during 2012-13 to 2016-17 was 5,738 ha leaving a balance of 5,968 ha to be created. The main reasons for the shortfall were:

- **Fixing of lower targets**: The Company fixed annual targets for potential creation (for the Company as a whole) in the range of 1,000 ha to 3,000 ha during the last five years. The achievements were even lower[79] and ranged from 'Nil' in 2015-16 to a maximum of 2,723 ha in 2013-14 during audit period of 2012-13 to 2016-17.

  In the past, between the years 2005-06 and 2007-08, the Company created potential of about 24,000 ha every year, which included about 10,000 ha[80] under Hemavathy Project (Tumakuru Zone). Hence, creation of the balance potential of 11,706 ha under Hemavathy Project in one or two years (2012/2013) was not a daunting task. As the State Water Policy envisaged completion of projects by 2005, the Company was supposed to give top priority to this with adequate fund allocation.

[75] Krishna Raja Sagar, Kabini, Harangi and Hemavathy.

[76] Krishna Raja Sagar (79,308 ha), Kabini (44,222 ha) and Harangi (53,520 ha).

[77] Hemavathy Project was executed by two Zones (Gorur and Tumakuru). The Project at Tumakuru consists of Tumakuru Branch Canal, Nagamangala Branch Canal and Bagur Navile Tunnel Exit Canal.

[78] 1,18,618 ha was completed by 2012 against the ultimate irrigation potential of 1,57,755 ha of which 27,431 ha was identified as area with high mounds (Source: Annual Report of the Company 2014-15). The irrigation potential that could be created under Tumakuru Branch Canal from km. 200 to km. 240 was stated to be 12,218 ha in the documents submitted under Resource Framework Document.

[79] Year (Targets/Achievement): 2012-13 (2,500 ha/518 ha); 2013-14 (3,000 ha/2,723 ha); 2014-15 (3,008 ha/2,000 ha); 2015-16 (1,008 ha/Nil); and 2016-17 (1,008 ha/497 ha). This included 485 ha under Malalur LIS, which was declared as potential created (2013-14), though project was not completed.

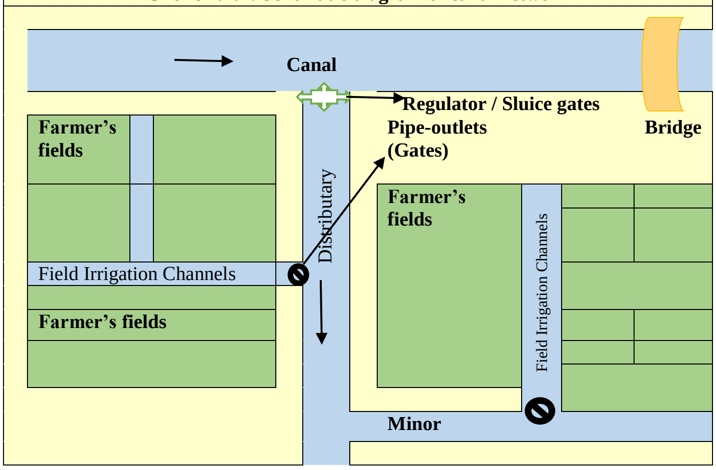
[80] Year (Targets/Achievement) under Hemavathy Project: 2005-06 (11,126 ha/10,624 ha); 2006-07 (12,136 ha/11,964 ha); and 2007-08 (8,000 ha/7,804 ha).

The pattern of funds requested from the Government, the funds allocated by the Company for different categories and the actual expenditure incurred under different categories (including their ratios) are given in **Appendix-5**. It would be observed that instead of fast-tracking the creation of remaining irrigation potential, by allocation of funds required, the Company reduced allocation in proportion to Budget allocation under different categories (*i.e.* potential oriented works, modernisation and improvement of canals, drinking water schemes, *etc*.).

The average allocation for potential oriented works during the period 2012-13 to 2016-17 was 12 *per cent* while the average allocation for modernisation, improvements and other capital works was 35 *per cent*, of the total allocation. The system of proportionate allocation without giving priority for completion of potential oriented works (creation of canals, distributaries and minors) was not a good practice especially when it was a priority area as per State Water Policy and should have been completed by 2005.

Audit analysed the effect of this allocation pattern on the potential oriented works in Hebbur Division, where major potential creation was pending under Tumakuru Branch Canal of Hemavathy Project.

Chart 2.2.2: Schematic diagram of canal network



While the works of earthwork excavation along with construction of Cross Drainage works [81] in km. 201 to km. 236 were included in Annual Works Programmes of 2012-13, works related to creation of distributaries (No. 29, 30) of these reaches and further canal construction (beyond km. 236)[82] and pipe-outlets for km. 201 to 220 were included in the Annual Works Programmes for 2013-14 and 2014-15. Pipe-outlets of km. 221 to 228 and construction of Minors[83] in km. 221 to km. 228 were included in Annual Works Programmes for 2014-15 and 2015-16. As could be seen, the works in only certain stretches of canals could be taken up in one year with the allocation provided, while the remaining stretches and its connected distributaries got deferred to subsequent years. By not giving priority to potential oriented works, especially in

[81] Culverts, cart bridges, under tunnels, syphons, cross regulators *etc*. A Schematic diagram of canal network is shown in **Chart 2.2.2**.
[82] Distributary no.31 starts from km. 228 and tails off upto km. 240.
[83] Canals in which discharge varies from 0.25 to 3 cubic metre *per* second.

completing the distributaries, canals and minors, the creation of potential got delayed. Till July 2017, the potential pending to be created in respect of Hemavathy Project was 5,968 ha.

- **Absence of planning for land acquisition**: Land acquisition is a tedious process and it takes about three years to acquire land, as notifications are to be issued and finalised in two years as per Land Acquisition Act, 1894. Further, extant orders and Karnataka Public Works Department Code mandate initiation of tender process only after acquisition of land.

  Therefore, it was evident that acquisition of land was to be completed before the works were taken up.

  However, the Company did not take any action to acquire land in advance with the result that there were land acquisition problems in five of the 19 test-checked projects, which resulted in delay in completion of projects (**refer Paragraph 2.2.12.1**).

Due to above mentioned reasons, the creation of irrigation potential was slow under Hemavathy Project. A total of 5,968 ha of irrigation potential was pending creation (July 2017) even after a lapse of 12 years from the date of completion of projects envisaged in State Water Policy, *i.e.* by 2005.

The Government replied that there were land acquisition problems in intermittent stretches in km. 201 to km. 228 and compensation (₹ 5.34 crore) for land acquisition was yet to be paid. It was also informed that the Company proposed to create balance irrigation potential of 511 ha under Distributary no.31 during 2017-18.

Creation of Field Irrigation Channels (FICs)

2.2.11.7. The State Water Policy, 2002, acknowledged that there were gaps in the utilisation of created irrigation potential due to delays in the construction of field irrigation channels (FICs). The Policy, therefore, envisaged that top priority would be given to the construction of field irrigation channels, so as to complete them in the shortest possible time (by 2006) and steps taken to utilise the potential created.

FIC programme for the projects in the Cauvery basin was done in its entirety by the Company upto 2013-14. After 2013-14, in addition to the Company, the Command Area Development Authority (CADA Directorate was formed in November 2011), also took up works of FIC creation.

It was observed in audit that:

- **Fixing of lower targets**: The total Field Irrigation Channels (FIC) created by the Company for the projects under its jurisdiction during 2013-14 to 2016-17[84] irrigated an area of 16,344 ha[85], by expending

[84] Information for 2012-13 not available.
[85] Year (Targets and Achievement): 2013-14 (10,667 ha/7,121.14 ha); 2014-15 (10,067.53 ha/4,232.25 ha); 2015-16 (10,935 ha/3,598 ha); and 2016-17 (686.68 ha/1,393.45 ha).

₹ 16.45 crore. The created FIC irrigated an area, which ranged from 7,121.14 ha in 2013-14 to 1,393.45 ha during 2016-17. This included FICs created to provide irrigation to 12,252.23 ha[86] in the test-checked project (Hemavathy) and the achievement ranged from 6,555.10 ha in 2013-14 to Nil in 2016-17.

The targets and achievements for creation of FICs dwindled by the year. Though there were no reported constraints to complete the work of creation of FICs, the targets for FIC creation, which was in the range of 10,000 ha per annum during 2013-14 to 2015-16 was drastically reduced to 687 ha in 2016-17 without citing any valid reasons. This resulted in FIC pending creation increasing by the year. As creation of ultimate irrigation by 2006 was a priority item, more importance was to be given for creation of FICs in AWPs. At the end of March 2017, FICs pending creation in respect of Hemavathy Project was 42,400.68 ha coming under 50 distributaries[87] and included 36,663 ha for which, the main work of construction of distributaries and canals were completed prior to 2012.

- **Not providing data to CADA**: The other reason for shortfall in achievement of FICs was that even after the responsibility of creation of FICs was transferred (2015-16) to CADA, based on directions of the Government, the Company was yet (June 2017) to provide details of 'canal through including pipe-outlets'[88] of the canals, which CADA authorities requested (September/October 2016) to make available.

The Company did not give due importance for the creation of FICs, though the target year for completion of FIC was 2006 as per the State Water Policy and FIC to provide irrigation to an area of 42,400.68 ha was pending.

During the Exit Conference (October 2017), the Principal Secretary emphasised that it was the responsibility of the Company to execute FIC works and stated that not providing last mile connectivity was a serious issue. The Government replied that 6,627.97 ha of FIC was pending with CADA, 4,850.70 ha was proposed to be created under drip irrigation while 1,043.55 ha could not be created due to various limitations[89]. The Government also stated that 29,878.46 ha could not be created due to non-payment of land compensation.

---

[86] Year (Targets and Achievement) under Hemavathy Project: 2013-14 (7,753 ha/6,555.10 ha); 2014-15 (5,334 ha/2,314 ha); 2015-16 (8,135 ha/3,383.13 ha); and 2016-17 (Nil /Nil).

[87] Major areas of Hemavathy Project were under Tumakuru Branch Canal: Nine distributaries (D-1 to D-10) totalling 960.61 ha in Turuvekere Division; 8 distributaries (D-10A to D-23) totalling 3,643.82 ha in Tumakuru Division; 15 distributaries (D-24 to D-31) totalling 13,412.06 ha in Hebbur Division; one distributary (D-26) for 2,323 ha in Yediyur Division; Nagamangala Branch Canal: Four distributaries (D-1 to D-8) totalling 359.52 ha in Turuvekere Division; 13 distributaries (D-9 to D-20) of 20,237.96 ha in Yediyur Division and BNT Exit Canal: 1,463.71 ha.

[88] Point in the Distributary/Lateral/Minor, from which water is drawn to FICs.

[89] 30.97 ha could not be created due to high mounds, 84.20 ha was overlapping achkat, 71.26 ha could not be considered as layouts were formed, 857.12 ha could not be created due to railway and national highway crossings.

Unless last mile connectivity is provided by creating FICs, the lands cannot be irrigated defeating the objective of creating the entire infrastructure of canals, distributaries and minors. The Company should, therefore, have ensured prompt payment of land compensation.

Absence of plans for Participatory Irrigation Management (PIM)

2.2.11.8. PIM creates a sense of ownership of water sources and irrigation systems among the users for promoting economy in water use and equity in distribution. This is achieved through the creation of Water Users Co-operative Societies (WUCS) and Federations. The functions of WUCS were to procure water in bulk on volumetric basis from the Irrigation Department or Company and distribute it to the land holders amongst its area of operation.

As per the State Water Policy, 2002, the management of water resources was to be done by adopting a participatory approach. As per Sections 2 and 62 of the Karnataka Irrigation Act, 1965, formation of the four-tier structure in irrigation projects was made mandatory with effect from June 2000. These were Water Users Cooperative Societies (WUCS)-at Sluice point[90]; Water User Distributary Level Federation (WUDL)-at Distributary level; Water Users Project Level Federation (WUPL)-at Project level; and Water Users Apex Level Federation (WUALF)-at State level.

Audit observed that:

- No emphasis was given in the plan documents of the Company for Participatory Irrigation Management. Out of 630 registered WUCS[91], only 357 WUCS were functional[92] of which, only 54 WUCS[93] were active. Similarly, of the three WUPL formed (Kabini, Krishna Raja Sagar and Harangi Projects), only two were active[94]. WUDL and WUALF were yet to be formed (July 2017). Also, only 10 WUCS approached for one time grants during the last five years, for which, grant of ₹ five lakh each was provided for creating basic infrastructure of the WUCS.

- There were no action plans to:

  a) Vitalise the WUCS by ensuring that Memorandum of Understanding (MoU) are entered with all registered WUCS and make them active. Further, there were no directions to the Executive Engineers of the project divisions to have better co-ordination with the WUCS and Federations.

[90] An outlet point for letting water from the canals to the fields for irrigation.
[91] Project-wise WUCS given in **Appendix-8**.
[92] 'Functional' WUCS are those, which are registered under the Societies Registration Act, 1980, and whose registrations are not yet cancelled or WUCS are not liquidated. 'Active' WUCS are those that have complied with the Regulations of the Societies Act, by holding elections, AGMs and Board meetings periodically and submitting reports to the CADA, Administrator, as mandated under the Act.
[93] Source: Information obtained from Command Area Development Authority at Mysuru.
[94] WUPL at Kabini was inactive since April 2015 as it did not satisfy conditions stipulated under the Societies Registration Act.

b) Hand over the activities of water management to the WUCS.

c) Allocate funds for maintenance of projects after handing over the projects to the WUCS.

As a result, the present arrangement of the Company raising demand for the water charges and maintaining the canals continued, instead of handing these activities over to the respective WUCS as envisaged.

The Government replied that constant efforts were made to ensure that all the registered WUCS enter into MoUs with the Company. The reply was not correct as there was no substantial progress in this regard and only 54 of the 630 WUCS were currently active.

Improper workings of the Benefit Cost Ratio

2.2.11.9. Benefit Cost (BC) Ratio is the ratio between the net annual benefit (incremental) to the net annual cost of the project, which indicates whether the proposed project gives value for money invested in it or not. It is a measure to assess the economic criteria for taking up an irrigation project. As per the guidelines (2010) of Planning Commission/Central Water Commission, the BC Ratio should be more than 1.5 in normal areas and more than 1.0 in scanty/drought prone areas. Audit observed that the Company worked out incorrect BC Ratios in three projects[95] as under:

- In the work of Modernisation of Hemavathy Left Bank Canal, the BC Ratio was worked out as 2.05 (as against the correct assessment of 0.92) by overestimating the 'gross value from farm produce' in the calculations and considering the area (lands) which were already being irrigated.

- In the work of Modernisation of Nugu High Level Canal, the BC Ratio was worked out as 1.3 (as against the correct assessment of 0.49) by overestimating the agricultural production per ha as 5.10 tonnes instead of 3.40 tonnes and also considering the entire area of 5,261 ha instead of limiting it to *suffering achkat* of 1,310 ha.

In the absence of a database of projects pending to be taken up **(refer Paragraph 2.2.11.4)**, whether alternative projects, which satisfy the BC Ratio were available for execution instead of the above projects, could not be ascertained.

The Government replied that emphasis was on improving the efficiency of the canals system and not the Benefit Cost (BC) Ratio. Moreover, those were only components of the project and BC ratio should be worked out for the project as a whole. The Government also stated that it recomputed the BC

[95] Of the 19 test-checked projects, BC Ratios were computed for only two of the modernisation works and one potential oriented work. BC Ratio was not computed for Drinking Water Schemes as there was no specific computation prescribed in the CWC Guidelines. In the remaining cases, the Project Reports were prepared prior to issue of the Guidelines.

Ratio of modernisation of Hemavathy Left Bank Canal, which worked out to 1.04.

Audit opined that the Company should have worked out the correct BC Ratio of the project as per the guidelines of Central Water Commission /Planning Commission and then taken a decision on its implementation by comparing it with other projects which required to be executed.

Preparation of incomplete estimates delayed the projects

2.2.11.10. The Company did not prepare proper estimates in four of the 19 selected projects, in spite of provisions in the Karnataka Public Works Department Code and circular instructions. The details of codal provisions and the deviation there against are given in **Appendix-6**. As a result of the deviations, the objectives envisaged in the projects of Chikkaballi Pickup Canal, Garakahalli LIS and Restoration and Rejuvenation of Arkavathy river were not achieved in time. In respect of work of Modernisation of Hemavathy Left Bank Canal, though circular instructions (July 2004 and November 2009) mandated that estimates be prepared after visit to site and controlled blasting be considered only where certain conditions existed, it was observed that after award of contract there was increase in cost due to incorrect classification of strata, incorrect length of the perimeter in the embankment reaches and insufficient provision for controlled blasting resulting in Extra Financial Implication (EFI) of ₹ 145.05 crore above the contract amount of ₹ 620.62 crore.

Conclusion of Audit Objective 1: There were lacunae in planning as the Company was not preparing Zone-wise Annual Works Programmes. The Company did not have a database for selection of projects and carried 3,427 number of spillover works (57 *per cent* of total works) in its Annual Works Programmes. Lack of priority in planning for potential oriented works and creation of Field Irrigation Channels (FICs) resulted in a total of 5,968 ha of potential oriented work and 42,400.68 ha of FICs for irrigation, remained incomplete even after a lapse of more than 12 years. These works were to be completed by 2005 and 2006 respectively as per State Water Policy, 2002. There were also instances of failure to prepare proper estimates due to non-compliance to Karnataka Public Works Department Code.

Recommendation 1: The Company may prepare the comprehensive Annual Works Programme for effective water utilisation of Cauvery water.
Recommendation 2: Before taking up fresh works, the Company may prioritise completion of all the spillover works pending since many years.
Recommendation 3: The Company may accord greater priority in its plan documents for potential creation and Field Irrigation Canals (FIC), acquisition of land in advance and sharing information with Command Area Development Authority, so that the irrigation potential and FIC are created at the earliest.

***Objective 2**: **Whether the works were executed within the stipulated time frame and the implementation was effective in achieving the objectives as set out in the Project Reports**.*

With regard to the second audit objective, observations are detailed below:

Project Implementation

2.2.12. Efficient implementation of irrigation projects involves timely award of contracts, ensuring availability of encumbrance-free land, approval of drawings without delays, synchronisation of associated works and coordination with various Departments of the Government. Any delay in implementation of projects would result in time/cost overruns and more importantly would have an effect on the realisation of the objectives, for which, the projects are taken up.

Our examination of the 19 selected projects revealed that 14 projects were delayed beyond their scheduled completion dates and consequently, the achievement of the objectives envisioned in the Project Reports were either delayed or were yet to be achieved (October 2017). Audit, however, observed that most of the delays were due to avoidable factors. The summary of the various deficiencies that caused the delay, project-wise, is given in the table No. 2.2.1.

Table No. 2.2.1: **Deficiencies noticed in the selected Projects**

Sl. No.	Test Checked projects --->	Potential oriented works		Drinking Water Schemes								Modernisation, improvements and other capital expenditure							Audit observations covered under paragraph no.
	Nature of deficiency	Hemavathy Project	Malalur LIS	Elechakanahalli	Alambur	Shivasandra	Alilughata and other tanks	Kanva	Nuggehalli	Sriranga	Doddaguni	Garakahalli LIS	Chicklihole	Iggulur barrage project	Chickballi Pickup C\anal	Modernisation of Nugu High Level Canal	Hangodu series	Modernisation of HLBC	
1	Delay on account of land acquisition	O	O	O					O	O									2.2.12.1
2	Delay in submission and approving the drawings		O		O		O	O	O	O									2.2.12.2
3	Delay due to non-synchronisation of associated work with main work				O	O	O												2.2.12.3
4	Delay due to administrative reasons of the Company														O				2.2.12.4
5	Delay by the contractor (due to non-availability of skilled labour, material)												O	O			O		2.2.12.5
6	Non-compliance to observations of Quality Control Wing / Non-appointment of Third Party Inspectors			O	O	O		O		O					O	O		O	2.2.12.6
7	Poor monitoring of projects					O	O					O	O	O	O				2.2.12.7

As could be seen, a multitude of factors affected the implementation of the projects. Delay on account of land acquisition process, submission and approval of drawings, and non-synchronisation of associated work had the greatest impacts in terms of delay. The analysis of each of the above mentioned factors are detailed below:

Delays on account of land acquisition

2.2.12.1. Whenever private land was required to be acquired for public works, such land was to be acquired as per the provisions of the Land Acquisition Act, 1894. With effect from January 2014, the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013, came into force.

The Assistant Commissioners or Special Land Acquisition Officers (SLAOs) were appointed as the Land Acquisition Officers under the Acts. Presently, five SLAOs[96] functioned under the jurisdiction of the Company. The SLAOs reported to the Deputy Commissioners of the Revenue Department in land acquisition matters. The administrative expenditure of SLAOs were borne by the Company, as SLAOs were mainly involved in the acquisition of land for the Company.

The Company identified, surveyed and informed SLAOs about the extent of the land required for acquisition. The SLAOs then acquired the land after following the procedures under the Land Acquisition Acts.

Audit observed that five projects[97] were delayed due to problems in land acquisition.

These key issues are elaborated below:

Table No. 2.2.2: **Key issues noticed in land acquisition process**

Sl. No.	Extant Orders	Audit Observation
1	**Delay in submission of proposals**	
	• As per Para 209 of KPWD Code, 1965, directions of the Chief Secretary in June 2007 and KPWD Code, 2014, (Chapter on 'Budget'-Paragraph 81, Land	• The Company did not have plans to acquire land before award of works. Land acquisition proposals in two Projects (Elechakanahalli, Sriranga)[98] were submitted to SLAOs after award of work, while in another Project (Nuggehalli) [99], it was sent partly before and partly after the work was awarded.

[96] SLAOs at Ramanagara, Mandya, Hassan, Mysuru and Tumakuru.

[97] Hemavathy, Malalur LIS, Elechakanahalli, Sriranga and Nuggehalli.

[98] Elechakanahalli: Work was awarded in July 2014 and Land Acquisition (LAQ) proposal submitted to SLAO in September 2014.
Sriranga: Work was awarded in December 2015 and LAQ proposals were submitted upto April 2017.

[99] Nuggehalli: Work was awarded in March 2013 and LAQ proposal submitted to SLAO between September 2012 and April 2014.

Sl. No.	Extant Orders	Audit Observation
	Acquisition), the work should be commenced, after acquisition of land.	In another two Projects (Hemavathy, Malalur LIS)[100], the extent of land to be acquired was under-assessed. The requests for acquisition of additional land were made during the execution of the works. Submission of proposals after award of work delayed the land acquisition, causing delays in implementation of projects. • Audit observed that there was shortage of surveyors in the Company to conduct surveys for the land identified for acquisition. As against the sanctioned strength of 62 Surveyors, the working strength was only 14, representing a 77 *per cent* shortage (at end of March 2017). However, the Company stated (July 2017) that though there was shortage of surveyors, the process of survey was undertaken with the help of revenue authorities by working on holidays.
2	**Delay in making payments**	
	• Para 153 (a) and (b) of Karnataka Financial Code 1958, mandate that in cases of acquisition of land for public purposes, Departmental Officers should see that compensation was settled before possession or compensation was not delayed.	• In one test-checked Project (Hemavathy)[101], there was non-payment to existing land owners after award of land compensation (April/August 2016) in spite of request (August 2016/May 2017) for ₹ 5.22 crore by SLAOs. **Reason**: Failure of the Company to allot funds for land acquisition under potential oriented works, despite receiving additional funds of ₹ 247.68 crore toward land acquisition during January 2017. The funds released were used for making payments to cases where amounts were long overdue (refer *row* below) and where Execution Petitions were ordered by the Courts.
3	**Contractor unable to get consent from land owner and execute the work**	
	• One of the conditions (Notes: Point 13 and Clause 1 of the Additional conditions of contract) of tender notification was that if any land, either in parts or in whole, required for the work was not acquired by the Company, it shall be the responsibility of the bidder (contractor) to take possession of such land and start the work by consent of the land	• In the test-checked Project of Hemavathy, for potential creation in the stretch from km. 201 to km. 240[102] of Tumakuru Branch Canal, audit observed that out of 9 packages of earthwork excavation awarded, 6 packages were rescinded as the land owners objected to the work without payment of compensation. As a result, potential creation in these stretches is getting delayed. **Reason**: • Non-payment of land compensation. • Due to non-settlement of land compensation in earlier cases, the Contractors were finding it difficult to convince the new land owners to give up their lands. For the Company as a whole, the

[100] Hemavathy: km. 201 to km. 210 of Tumakuru Branch Canal–Work was awarded in September 2012. LAQ for additional land/left over cases (34 acres 7 guntas) were submitted to SLAO in April/May 2016.
Malalur LIS: Work was awarded in August 2012 and LAQ proposal for additional land (7.12 acres) was submitted in November 2014 and for another 11.31 acres in June 2016.

[101] Hemavathy: Land acquisition under km. 201 to km. 210 of Tumakuru Branch Canal.

[102] Including Distributary no.31, which starts from km. 228 of Tumakuru Branch Canal.

Sl. No.	Extant Orders	Audit Observation
	owners or by negotiations before commencement of work at no extra cost to the Company.	land compensation pending, at end of August 2017, amounted to ₹ 534.28 crore[103], which included cases pending since 2006[104]. The amount included ₹ 136.70 crore where Execution Orders were issued by the Courts. The scenario is difficult and with such a background, the chances that the contractors would get consent of the land owners without payment of compensation, are bleak.

Thus, lack of planning for taking advance action for acquisition of land, non-compliance with extant orders and directions and diversion of funds allocated for land acquisition for other capital works, delayed the completion of the projects. The objectives envisaged in the Project Reports of potential creation (Malalur LIS: 1,200 acres, Hemavathy: 5,968 ha) and filling up of 17 tanks to provide drinking water under the Projects (Nuggehalli: 15 villages, Elechakanahalli: 28 villages) were not achieved even after a lapse of two to four years.

The Government replied that it was the usual practice of the Company to entrust the work for execution and carry on the land acquisition process parallelly in order to freeze the cost of the project. The cost of the project would increase if the Company waited for the completion of the land acquisition process, which usually requires a minimum of three years. The reply further stated that in respect of the Hemavathy Project, potential creation was pending in intermittent stretches in km. 201 to km. 228 as land compensation was not paid and fresh proposals were sent under Land Acquisition Act, 2013, for such cases of acquisitions. In respect of Malalur LIS, it was accepted that land acquisition proposals were sent to SLAOs after award of work due to shortage of surveyors.

The reply should be viewed from the point that works awarded were to be completed in one year's time. If it was an accepted fact that land acquisition takes about three years' time and due to shortage of surveyors, payment of compensation for awarded cases would be delayed, it was a known fact that there would inevitably be delays. Freezing of costs for the project was for an administrative action of approval of the project. As land costs are not part of awarded cost, it was not justified to cite freezing of cost of project as a reason for not taking action to acquire land in advance. The fact remained that the Company did not comply with KPWD Code and extant orders mandating acquisition of land before award of contracts. The issues related to land acquisition faced in the projects, mentioned in the audit observation, could have been avoided.

Recommendation 4: The Company may take action for making payment towards land compensation, which were overdue since many years.

---

[103] In the absence of age-wise details, the interest component was not quantified.
[104] In test-checked Office of the Special Land Acquisition Officer at Tumakuru.

Delays in submission and approving the drawings

2.2.12.2. The Design, Quality Control and Technical Vigilance Wing of the Company, headed by a Superintending Engineer, was formed (September 2003) with the aim of bringing out uniform design procedures for various types of irrigation structures and to have proper quality control over the quality of works. The Design Wing cleared the drawings, which were then approved by the Chief Engineer and the Technical Subcommittee, before the works were awarded. For the works in which the preparation of designs and drawings were in the scope of the contractor, the timelines for submission were mentioned in the Activity Chart/Bar Chart forming part of the agreement.

Audit observed that in five Drinking Water Schemes (DWS) and one potential oriented work[105] there were delays in submission of drawings by the contractor for periods upto a year. The Company also delayed the approval of drawings from periods ranging from one month to 13 months as detailed in **Appendix-7**. The overall delay in approval of drawings, when compared to the dates committed in the activity charts in these six projects, ranged from four months to 22 months.

One of the main reasons for the delay on the part of the Company was the long process time at various levels (official hierarchy) while approving the drawings. There were no time limits fixed for approval of drawings at each level of hierarchy.

An illustrative case indicating the time taken at various levels in respect of Sriranga DWS is given in the **Chart No. 2.2.3** alongside.

Chart No. 2.2.3: Time taken for approval of Longitudinal Section and Raising Main drawings of Sriranga DWS.

Sl. No.	Process flow	Dates	Time taken (days)
1	Contractor submits drawings	16.1.2016	-
2	Opinion of the Consultant	23.1.2016	7
3	Chief Engineer approved the drawings subject to modifications	30.1.2016	7
4	EE requests contractor for modifying drawings	6.2.2016	7
5	Contractor submits drawings to AEE	7.4.2016	60
6	AEE forwards to EE	16.4.2016	9
7	EE to SE	20.4.2016	4
8	SE to CE	20.4.2016	-
9	CE to Consultant	31.5.2016	40
10	Recommendation to CE for approval by Consultant	6.6.2016	6
11	CE to SE intimating approval	12.9.2016	96
Total time taken for approval		**8 months**	
Due date for submission and approval of drawings as per contract		**February 2016**	
	Delay	**6 months**	

AEE: Assistant Executive Engineer; EE: Executive Engineer; SE: Superintending Engineer; CE: Chief Engineer.

The other aspect was the shortage of staff in the Design Wing, which did not have dedicated sanctioned strength. The Design

[105] Drinking Water Schemes: Alambur, Nuggehalli, Kanva, Sriranga, Alilughatta and other tanks. Potential oriented work: Malalur LIS.

Wing, which hitherto (before formation of Company) had three separate wings in each Zone with Technical Assistants and Engineers totaling 14 Officers, currently functioned with 6 Officers only. The Design Wing requested for additional staff and they were yet to be posted (November 2017).

The delay in submission and approval of designs and drawings by the Contractor and the Company resulted in delay in completion of the projects, thereby delaying the achievement of providing irrigation (Malalur LIS: 1,200 acres) as well as filling up of 56 tanks (for providing drinking water to 248 villages[106]) under four Drinking Water Schemes, on which, cumulatively an expenditure of ₹ 496.02 crore was incurred (March 2017).

The Government replied that approval for designs and drawings were delayed owing to scrutiny at various levels (Alambur), delay by the contractor in not submitting the drawings of the pump house as per Detailed Project Report (Nuggehalli), change in location of pump house (Sriranga) and clarifications submitted several times (Malalur LIS).

The fact remained that delays on the part of the Company and contractor delayed the approval of the drawings, which in turn affected the realisation of the objectives envisioned in the Project Reports.

Recommendation 5: The Company may fix timeline for approval at various levels for clearance/approval of drawings, so that the process time for granting approvals is regulated.

Non-synchronisation of associated work with main work

2.2.12.3. Proper synchronisation of all the associated works are essential for timely completion of a project. While the Company awards the main work of implementation of the projects, certain components of works, *viz*. field survey, providing electrical infrastructure, *etc*. are separated from the main work and tenders are invited separately for these associated works.

Audit observed that there were deficiencies in synchronisation of associated works with the main work and as a result the completion of the project as a whole was hampered. The cases noticed in test-checked projects are given below:

Table No. 2.2.3: Non-synchronisation of associated works with the main work

Sl. No.	Project name and details of the Main work	Details of associated work(s), which affected the main work	Cause and impact of the non-synchronisation of associated work(s)
1	**Alambur**: The main work for filling up tanks for providing drinking water was awarded in February 2012 and was to be	As per the activity chart of the main work, work of construction of sub-station and lines were to be undertaken from September 2012 and	• Delay in initiating tender for associated work. As per activity chart of the main work, the electrical work was to commence from September 2012. Therefore, the tenders should have been invited in July 2012. Instead, the estimates for the associated work was approved in February 2013 and tender called for in

[106] Alambur: 20 tanks/52 villages, Nuggehalli: 11 tanks/15 villages, Kanva: 17 tanks/115 villages and Alilughatta: 8 tanks/66 villages.

Sl. No.	Project name and details of the Main work	Details of associated work(s), which affected the main work	Cause and impact of the non-synchronisation of associated work(s)
	completed by August 2013. The Project, with three lift works were commissioned in August 2014, December 2014 and April 2015.	completed by August 2013. The Company, however, invited tenders for the work of providing sub-station and electrical connection for pumping machinery in March 2013. As sole bidder did not qualify technically, tenders were re-invited in May 2013. After negotiation with the bidder, the work was finally awarded in December 2013, after five months.	March 2013, after delay of eight months. • Delay of two months (March 2013 to May 2013) for payment of supervision charges of ₹ 52.50 lakh after it was demanded by the State Transmission Utility. • Holding negotiations for five months (August 2013 to December 2013) for works with scheduled completion time of four to six months. Due to delay in commissioning of the main work, the objective of filling 20 tanks to supply water to 52 villages was delayed. The Government replied that the rates quoted by the contractor were high (20 *per cent* above the estimated cost) and due to negotiations, the work was awarded in December 2013. The reply was not correct as there was no justification for not inviting tenders for sub-station works by July 2012 to complete the work as envisaged in the Activity Chart. The Company negotiated with the contractor for five months and awarded the works at 19 *per cent* above the estimate cost, as against the offer of 20 *per cent* above the estimated cost.
2	**Shivasandra**: The main work for filling up tanks for providing drinking water was awarded to contractor in March 2015 and was scheduled to be completed by April 2016. The work was completed in July 2016.	The work of installing 11 kV Breaker was awarded (November 2016) to contractor for ₹ 14.30 lakh. The work was to be completed in thirty days, which was still ongoing (July 2017) for want of Breakers.	Though the main work was completed in July 2016, absence of Breaker delayed the operationalization of the lift irrigation works of the project. As a result, the objective of filling up seven tanks to supply drinking water to 19 villages was not achieved in spite of incurring ₹ 8.59 crore on the project. The Government replied that due to delay in supply of breaker by Mysore Electricals Limited (a State PSU), the work could not be completed in time and was completed in August 2017. The reply does not address to the audit observation on delay of six months in awarding the associated work.
3	**Alilughatta and other tanks**: The main work for filling up tanks for providing drinking water was awarded in May 2015 and was to be completed by August 2016. The work was still pending (July 2017).	The work of survey and preparation of land acquisition proposals (an associated work) required for laying of pipes, was tendered only in August 2016 and the work awarded only in December 2016. The work, which was to be completed in two months (February 2017) was yet to be completed (July 2017) due to delay on the part of the contractor.	The associated work was awarded in December 2016 (*i.e.* four months after the scheduled date for completion of main work in August 2016). The completion of the main work by August 2016 was affected due to non-completion of the work of survey for land acquisition. As a result, the objective of filling eight tanks (to provide water to 66 villages) was not achieved. The Government replied that original land records of the proposals were missing from the Deputy Commissioner's Office, Tumakuru and fresh land acquisition proposals were submitted in June 2017 and that there were delays due to non-approval of Extra Financial Implications. The reply does not address the reason for delay in inviting tenders for survey work, in the first place.

It could be noticed that in the above three projects, the associated works were awarded after the scheduled completion date of the main work, without recording any reasons for such delays. This resulted in non-synchronisation with the main work and affected the completion of the project as a whole. As a result, the objective envisaged in the three projects of filling up of 35 tanks (to provide drinking water to 137 villages), on which, an amount of ₹ 294.87 crore was expended, was not realised.

Recommendation 6: The Company may ensure that the associated works are awarded in synchronisation with the main work.

Delay due to administrative reasons of the Company

2.2.12.4. Chikkaballi Pickup Canal (Mandya Division) acts as a feeder channel to Keragodu Branch Canal, which provides water to 3,200 acres. The work of construction of modernisation of Chikkaballi Pickup Canal was awarded in January 2010 for ₹ 5.83 crore and was to be completed by March 2011.

As a result of omission of the work of fixing crossover pipes in the estimate (**refer Paragraph 2.2.11.10** and **Appendix-6**), the Contractor had to execute extra quantities/items of excavation resulting in Extra Financial Implication (EFI). The request (November 2011) of the contractor for the then prevailing Schedule of Rates for extra quantities were not accepted, and hence, the contractor was not willing to execute the work. The division proposed (August 2012) EFI, which was not agreed to (October 2012) by higher authorities as it was a clear case of omission/error in estimate and not technically justifiable.

Meanwhile, the contractor stopped (April 2013) the work after executing work valued at ₹ 2.31 crore. Finally, a Third Party Scrutiny Team was formed (April 2013) to examine the EFI proposal. The Officers of the Company did not provide details of the work to the Team until March 2014, which further delayed the execution of the work. Thereafter, after receipt of details, the Third Party Scrutiny Team submitted its Report in April 2014. Upon submission of the Report, the contractor took up the work and completed the same in June 2015. The EFI of ₹ 70.06 lakh was approved in November 2015.

Thus, delay in approval of EFI, and delay by the officials of the Company to provide details to the Third Party Scrutiny Team resulted in delay in completion of the project by four years (July 2011 to June 2015). The objective of providing water to 3,200 acres of *achkat* of Keragodu Branch Canal suffered.

The Government replied that there was no delay on the part of the contractor or Company. The delay was attributable to seepage in the canal. Furthermore, the reply stated that water was given to farmers without interruption.

The reply was not correct as the contractor communicated that he would not proceed with the work until the EFI was approved. It was also seen that the Company provided documents after one year to the Third Party Scrutiny Team. Moreover, taking up the work itself remains unjustified, as water could be given to the farmers even without completion of the project.

Delay by the contractor

2.2.12.5. Audit observed that in three projects[107], the delay was on the part of the contractor due to non-availability of labour and sand and also due to presence of water in the canal.

Procurement of materials and sourcing of labour was the sole responsibility of the contractor. Presence of water in the canal was due to the reason that the contractor did not complete the work within the stipulated non-monsoon period. These delays attributed to the contractor were avoidable.

The Government accepted (November 2017) the reasons pointed out by Audit as the factors that contributed to the delay and stated that nominal penalty was levied.

Quality Control and Third Party Inspections

2.2.12.6. Quality Control (QC) Wing with two divisions assisted the Executive in discharging their primary responsibility of ensuring the quality of work as stipulated in the specifications of the work.

As per the Order (February 2005) of the GoK, independent Third Party Inspectors-TPI (also called Quality Supervision Consultant-QSC) were to be mandatorily appointed for all the works with estimated cost of more than ₹ two crore. The Managing Director also issued (December 2015) circular mandating appointment of Third Party Inspectors for all works costing above ₹ two crore and Project Management Consultants for works costing above ₹ five crore.

Audit observed that:

- The Executive Engineer of Quality Control Divisions inspected the projects and issued Inspection Notes. However, in respect of 33 Inspection Notes of six test-checked projects[108], the divisions, which were executing the work did not submit Action Taken Reports (ATRs). The ATRs were pending for five months to six years from the date of Inspection till date (May 2017). The nature of the observations of Quality Control wing included use of sand after sieving to meet the Indian Standard Codes, directions to get sand and cement checked before putting to use, and covering the pipes as the 'in-lining and guniting[109]' of pipes were exposed to sun, *etc*. Failure to comply with the directions mentioned in the Inspection Notes of Quality Control Wing raises doubts on the quality of work executed.

  The Government replied that the Quality Control tests were conducted regularly by the Company and the results were satisfactory

[107] Iggalur Barrage Project, Chiklihole and Hanagodu series.

[108] Name of the Project (No. of inspection notes issued/Action Taken Report pending receipt): Chikkaballi Pickup Canal (3/1), Alambur (11/6), Kanva (15/15), Elechakanahalli (3/2), Modernisation of Nugu High Level Canal (7/6) and Modernisation of HLBC (20/3).

[109] Watering the pipes.

(Chikkaballi, Alambur). It further stated that ATRs were given (Kanva, Elechakanahalli).

The reply was not factually correct as the Quality Control Inspection Wing continues to indicate in their records that ATRs to the Inspection Notes of these projects are pending.

- The Company did not appoint Third Party Inspectors in all except four of the 16 test-checked projects, where awarded costs were more than ₹ 2 crore. In the four cases too, they were belatedly engaged as detailed below:
  - In the work of modernisation of Hemavathy Left Bank Canal, by the time Third Party Inspectors were appointed (March 2016), about 50 *per cent* of the main work was already completed.
  - In the work of Shivasandra Drinking Water Scheme (DWS), the majority of the main work of the project was already completed by July 2016. Thus, the appointment of Third Party Inspectors in December 2016 did not serve its envisaged purpose.
  - In Sriranga DWS, by the time the Third Party Inspectors was engaged (October 2016), several items of work like earthwork excavation for foundation and sump structure, plain cement concrete for foundation, *etc*. were already completed.
  - In the work of Modernisation of Nugu High Level Canal, though the main work was awarded (June 2016) at a cost of ₹ 109.11 crore, no Third Party Inspectors were engaged to conduct QC tests.

By delaying the appointment/not appointing the Third Party Inspectors, the essence of the Government Order of February 2005 to ensure adherence to quality standards, check corrupt practices and instill public confidence in the system was not achieved.

Further, it was also observed that the Third Party Inspection Reports were not routed through the Quality Control Divisions of the Company, thereby keeping the QC Divisions uninformed about the findings and action taken by the work executing divisions.

The Government replied that the Company had Quality Control Officers and without third party inspection also, the Company executed quality work as per specifications. It was further stated that in future, Quality Control and Third Party tests would be done independently and results of Third Party Inspection would be routed through the Quality Control Divisions.

Recommendation 7: **The Company may monitor Action Taken Reports in the meetings and act upon them promptly.**

Monitoring

2.2.12.7. Monitoring was recognised as a useful management tool for ensuring timely completion of projects. The State Water Policy, 2002, stipulates close monitoring of planning, execution and performance of water resources projects to identify bottlenecks and to obviate time and cost overruns.

Audit observed that:

- The Board of Directors (BoD) did not discuss the progress of work of any of the projects during 2012-13 to 2016-17 as it was not submitted to BoD.

- Only eight[110] out of 14 projects, which were delayed of the 19 test-checked projects (**Appendix-4**), were discussed by the Managing Director during the nine meetings held with the Chief Engineers/Superintending Engineers/Executive Engineers during the last five years. Further, no specific instructions were issued to the Officers for taking remedial or proactive action to resolve issues.

The Government replied that action would be taken to evolve a suitable system to discuss the progress and problems involved in delay in completion of projects in regular intervals.

Manpower

2.2.12.8. At the end of March 2017, the Company had a sanctioned strength of 2,928 employees under 76 different cadres, of which, men-in-position were 1,904, leaving a vacancy of 1,024 employees, representing about 35 *per cent* vacancy. The main shortage was in the cadre of Assistant/Junior Engineers, Assistants, Surveyors, *Sowdies*[111] and Watchmen.

The effect of the shortage of surveyors in land acquisition process is brought out in **Paragraph 2.2.12.1**, while the effect of shortage of other staff/officers (35 *per cent* shortage) on the implementation of projects could not be quantified.

The Government replied that action would be taken to recruit necessary staff.

Conclusion of Objective 2: The implementation of the projects suffered due to land acquisition problems, delays in approval of designs, non-synchronisation of associated works with main works and other administrative reasons, all of which, were avoidable factors. Adequate attention was not being given to Inspection Reports of the Quality Control Divisions. Monitoring of projects was inadequate due to lack of proper reporting system to the Board of Directors.

All these factors have resulted in 14 out of 19 test-checked projects being delayed, resulting in partial achievement of the objectives of creation of irrigation potential and filling up of tanks for providing drinking water to

[110] *Discussed:* Hemavathy Project, Malalur LIS, Elechakanahalli, Alambur, Kanva, Nuggehalli, Hanagodu series and Arkavathy river rejuvenation; and
Not-discussed: Alilughatta and other tanks, Shivasandra, Chiklihole, Iggalur Barrage Project, Chikkaballi Pickup Canal, Garakahalli.

[111] Whose duties included Water management of the canals.

villages envisaged in the Project Reports, and non-achievement of objectives of modernisation of canals. The total amount expended on these delayed projects was ₹ 560.32 crore[112].

Conclusions

Of the 19 Projects test-checked in audit, three projects were completed in time, 14 projects were delayed, while the remaining two were under progress.

The main reasons for the delay in completion of the projects were deficiencies in planning and implementation. There was non-compliance with Karnataka Public Works Department Code/Extant orders on land acquisition and delay in payment of compensation for land acquired. Further, delays in approval of designs and drawings, non-synchronisation of associated works and insufficient monitoring, all of which, were avoidable factors also led to delay in completion of works.

As a result, a total of 5,968 ha of potential oriented work and 42,400.68 ha of Field Irrigation Canals were pending completion even after 12 years of the target years of completion as envisioned in the State Water Policy, 2002. In addition, the benefits envisaged in the Project Reports of filling up of 81 tanks (for providing drinking water to 310 villages), providing water to *suffering achkat* of 3,200 acres and efforts to restore and rejuvenate the Arkavathy river were delayed and the objectives were not realised in time. A total expenditure of ₹ 560.32 crore was incurred on this.

[112] Expenditure on Hemavathy Project was not considered as it represents test-checked cases only.

Chapter - III

Compliance Audit Observations

Chapter - III

3. Compliance Audit Observations

Important findings emerging from audit that highlight deficiencies in planning, investment and activities of the Management in the State Government Companies and Statutory Corporations are included in this Chapter. These include observations on unproductive investment, violation of contractual obligations, undue favours to contractors, extra/avoidable expenditure, non-recovery of dues and cases where the intended objectives of the projects of the Government were not achieved.

Government Companies

Karnataka Neeravari Nigam Limited

3.1. Irregular payment of incentive to the contractors

Payment of incentive in contravention to tender conditions resulted in undue benefit to the contractors by ₹ 11.11 crore.

The Schedule of Rates of Water Resources Department, Government of Karnataka, introduced incentive to contractors for speedy completion of the works from the year 2011-12. The Karnataka Neeravari Nigam Limited (Company) adopted the said incentive clause while inviting tenders (September 2011) for the works of Modernisation of Bhadra Canal System. The tender documents included a clause enabling payment of a weightage amount of 25 *per cent* (incentive) on specified items of work with the condition that it would be released to the contractor, only if the contractor completes 90 to 100 *per cent* of the modernisation work within the single closure period/ stipulated period.

The Accounts Department of the Company, which was supposed to verify the compliance to these conditions, ignored and paid incentive in respect of three works though the contractors have not completed the work in single closure period/stipulated period.

The cases of irregular payment of the incentive are detailed below:

A. The Company awarded (December 2011) the work of Modernisation of Bhadra Right Bank Main Canal from 0.00 km to 20.00 km including lining works[113] and rehabilitation of structures (balance work) - Package 2(a)(1), to Haigreeva Infratech Projects Limited (Contractor) for ₹ 77.74 crore with a stipulation to complete the work in two calendar months (*i.e.* 2.12.2011 to

[113] A Cement Concrete layer provided at the bed and sides of canal to improve the life and discharge capacity of canal.

1.02.2012) by considering the irrigation closure period[114] from 2.12.2011 to 5.01.2012 (both days inclusive).

Audit observed that:

- As per the work award, the single irrigation closure period was from 2.12.2011 to 5.01.2012 (*i.e.* 35 days, both days inclusive). Out of 15 items of works eligible for incentive, 13 items were partially completed ranging between 0.56 *per cent* and 89.84 *per cent* during this period, whereas the remaining two items did not even start within the single closure period.

- Though the Contractor did not complete 90 *per cent* of the modernisation work within the single closure period as per tender condition, the Company released (August 2014) incentive of ₹ 10.35 crore for 13 items of work (**Appendix-9**) stating that he achieved 90 *per cent* within the second canal closure period in May/June 2012.

The rationale behind introducing the incentive was to plan and complete the work within the stipulated time considering the stoppage of water in the canal. Payment of incentive for less than 90 *per cent* completion undermined the very purpose of incentivising the Contractor. Therefore, it was in violation of the contractual terms resulting in undue benefit of ₹ 10.35 crore to the Contractor.

The Government replied (December 2017) that as the Contractor was available for only 36 days during the single closure period against 60 days agreed, remaining 24 days were allowed to complete the balance work. The Contractor executed more than 90 *per cent* of the revised quantities within the extended period duly approved without penalty. Hence, incentive was paid to the Contractor.

The reply was not justified as the Company, as well as the Contractor were aware that a single canal closure period was 35 days only and the eligible items of works were to be completed within the stipulated single closure period for payment of incentive. The Work Order clearly defined the total contract period as 60 days (from 2.12.2011 to 1.02.2012) and out of that, 35 days (2.12.2011 to 5.01.2012) was canal closure period. In spite of the stipulation, the Contractor did not complete 90 *per cent* of the modernisation work within a single closure period. Hence, the incentive paid was irregular.

B. Similarly, the work of Modernisation of Bhadra Left Bank Distributaries 1 to 8 and their Laterals (balance work) - Package 1(a)(1), was awarded (December 2010) to Sri. S. M. Biradar (Contractor) for ₹ 5.27 crore with a stipulation to complete the work in nine months considering the canal closure period from 4.12.2010 to 5.01.2011 and from 1.06.2011 to 1.07.2011 (*i.e.* 64 days).

---

[114] Irrigation Closure Period refers to the period when the canal was closed for maintenance and water was not let into the canal during this period.

The Contractor was eligible for incentive of 25 *per cent* only if the entire work (*i.e.* 100 *per cent* of two eligible items) was completed within the stipulated canal closure period.

Audit observed that though the Contractor did not complete the entire work within the stipulated canal closure period, the Company paid ₹ 43.24 lakh (**Appendix-9**) as incentive, which was irregular.

The Government replied (December 2017) that though the stipulated period for completion was nine months, the actual working period given was only 62 days. The Contractor completed the 100 *per cent* of two items of work eligible for incentive within the extended closure period.

The reply was not correct as the items of work eligible for incentive were to be completed 100 *per cent* within the specified closure period as defined in the work order. The Contractor was unduly favoured by allowing extended closure period in violation of the contractual terms.

C. In yet another work of Modernisation of Bhadra Left Bank - Minors of Distributary 27 (balance work) - Package 1(c)(4), where the incentive was payable on completing full work within the single canal closure period, the Company paid incentive of ₹ 32.71 lakh to Sri. P.K.Shivaram (Contractor). This amount was paid for the work, which was not completed within the single canal closure period. The Government replied that the same would be recovered. The recovery was yet (December 2017) to be effected.

Thus, payment of incentive by the Company indicated failure of internal control system resulting in disregarding the tender conditions and extending undue favour to the contractors by ₹ 11.11 crore, which should be recovered.

Karnataka Neeravari Nigam Limited

3.2. Avoidable payment

Non-adherence to, as well as non-utilisation of, relevant provisions of the Conditions of Supply of Electricity of Distribution Licensees resulted in avoidable payment of ₹ 3.80 crore.

The Karnataka Neeravari Nigam Limited (Company), entrusted (September 2005) the work of design, erection, testing and commissioning of Sri Rameshwara Lift Irrigation Scheme including the construction of the sub-station, electrical works and operation of the system for two years to Subhash Projects and Marketing Limited (Contractor) at tendered cost of ₹ 86.47 crore. The lift work was completed and commissioned in March 2013.

For operation of the above Lift Irrigation Scheme, the Company obtained (April 2013) a High Tension (HT) power connection with a sanctioned load of 20,800 HP from Hubli Electricity Supply Company Limited (HESCOM). The Conditions of Supply of Electricity of Distribution Licensees as notified (June 2006) by Karnataka Electricity Regulatory Commission (KERC) and the conditions of sanction by HESCOM stipulated that the HT consumer[115] were to maintain an average Power Factor[116] of not less than 0.90 and install suitable correcting apparatus (capacitors[117]) for maintaining the same, failing which, surcharge shall be leviable as per tariff schedule. The conditions also stipulated that the consumer was liable to pay the interest for delayed payments, at the rates prescribed by the Government from time to time.

Audit observed (February 2017) that:

- As per the instructions to bidder (which forms part of the agreement), the Contractor was to ensure that the Power Factor of the system does not fall below 0.90 during off load and/or monsoon period. He was to make necessary arrangements for connecting the required capacitors in the circuit. However, the Power Factor was not maintained at 0.90 in any of the months between June 2013 and April 2015 by the Contractor and thereafter, upto March 2017 by the Company. An amount of ₹ 1.24 crore was paid as Power Factor penalty. The Power Factor ranged from 0.28 to 0.87 between June 2013 and March 2017 (except in December 2014 when it was 0.93).

  The operations of the Lift Irrigation Scheme were vested with the Contractor for two years upto April 2015. The Company, however, did not monitor the maintenance of the Power Factor resulting in payment of penalty towards non-maintenance of Power Factor.

- The Company delayed payment of electricity bills and paid ₹ 45 lakh as penalty from April 2013 to March 2017. Though the Company directed recovery of penalty from the officials responsible for the same, no action was initiated.

- The Company was using electricity for pumping water from March 2013 and it did not utilise the power upto 75 *per cent* of the sanctioned load of 20,800 HP in any of the months except September 2016, paying demand charges for the entire sanctioned load.

- The General Terms and Conditions of Tariff Order permitted seasonal industries to reduce contract demand during off-season. The Company, which was a seasonal consumer of electricity, *i.e.* consuming electricity only during the rainy season (from June to September) when water was pumped to the canal, did not exercise the option to reduce the contract demand. As a result, it incurred additional contract demand charges amounting to ₹ 2.11[118] crore, which could have been avoided.

The Company replied (June 2017) that the delay in payment of electricity bills occurred due to insufficient funds. Further, it was also stated that several

---

[115] Consumers supplied with High Tension power.

[116] The ratio of the real power used to do work and the apparent power supplied to the circuit.

[117] Capacitors are passive electronic components that provide a static source of reactive power in electrical distribution systems.

[118] The amount of savings calculated on the reduced contract demand of 50 *per cent* of sanctioned demand of 20,800 HP for a maximum period of six months as per tariff order.

notices were issued to the Contractor to maintain the requisite Power Factor and penalty would be recovered from the Contractor.

The reply was not justified as the Company's financial position was not in such a bad shape that it was not possible for it to pay electricity charges. The Company kept an amount of ₹ 79.09 crore to ₹ 1,590.77 crore during 2012-13 to 2014-15 in deposit accounts with banks and treasury. Also, the chances that the Company would not be able to recover the amount remained high as the liability of the Contractor was limited only to the agreement period of two years (*i.e.* till April 2015).

Thus, the failure of the Company to adhere to the provisions of the Conditions of Supply of Electricity of Distribution Licensees, resulted in avoidable payment of ₹ 3.80[119] crore.

The matter was referred (May 2017) to the Government and their reply was awaited (November 2017).

Krishna Bhagya Jala Nigam Limited

3.3. Undue financial benefit to the Contractor

Premature payment of weightage of ₹ 51.58 crore and excess payment of ₹ 4.82 crore contrary to tender conditions resulted in extending undue financial benefit to the Contractor and potential loss of interest of ₹ 6.02 crore on the amount prematurely released.

The Schedule of Rates (SR) of Water Resources Department allowed 25 *per cent* weightage over the rates in SR for all the items of works involved in modernisation of canal network, for completion of the works during canal closure period of about three to four months and less. The 25 *per cent* weightage was payable only in the last/final Running Account (RA) bill, subject to completion of 90 *per cent* of work in a single closure period.

The Krishna Bhagya Jala Nigam Limited (Company) awarded (February 2014) the work of Remodelling of Shahapur Branch Canal from 0.00 km to 30.00 km (estimated cost ₹ 215.02 crore) to Shri. D. Y. Uppar (Contractor) on tender basis at ₹ 267.62 crore (which was 10 *per cent* above the recast tender amount of ₹ 243.29[120] crore). Both the Work Order and the Agreement stipulated (February 2014) that the work should be completed within 90 days from the last day of (24 March 2014) letting water into the canal during rabi season of 2013, *i.e.* by 25 June 2014. The canal was closed from 24 March 2014 to 31 August 2014 and the Contractor completed the work within that period. The final bill was paid (January 2016) for an amount of ₹ 7.65 crore after adjusting ₹ 259.72 crore already paid in various RA bills, which included the weightage of 25 *per cent* for completion within 90 days.

[119] ₹ 1.24 crore *plus* ₹ 0.45 crore *plus* ₹ 2.11 crore *equals* ₹ 3.80 crore.

[120] The initial estimated cost of ₹ 215.02 crore was revised to ₹ 243.29 crore due to change in Schedule of Rates from 2012-13 to 2013-14.

Audit observed (February 2017) that:

- The Company paid (20.07.2014) an amount of ₹ 51.58 crore as weightage for completion of 90 *per cent* of the work within the canal closure period from the 3rd Running Account (RA) bill submitted on 26 June 2014, instead of paying in the final bill which was submitted on 4 May 2015. The premature payment of 25 *per cent* weightage of ₹ 51.58 crore resulted in extending undue benefit to the Contractor by way of interest of ₹ 6.02 crore[121] on that amount; and

- From the final bill, it was observed that the Company paid ₹ 214.34 crore towards works and ₹ 53.04 crore towards 25 *per cent* weightage. Premium of 10 *per cent* was paid on the weightage amount also. This resulted in excess payment of ₹ 4.82[122] crore to the Contractor.

The Government replied (June 2017) that wherever the weightage of 25 *per cent* was released in the 3rd RA bill, the quantities executed as per the measurement book and the bill were more than 90 *per cent* of the tendered quantity, and the value of the quantities in the bill was more than 97 *per cent* of the contract value. Further, it was replied that the recast amount of ₹ 243.29 crore included weightage of 25 *per cent* and the tender was a percentage tender and not an item rate tender. Hence, the Government asserted in its reply that the payment was correct.

The reply was not correct for the following reasons:

- The incentive was paid from third RA bill onwards. As per SR, it was payable only in the last/final RA bill. From the reply, it was apparent that weightage was to be paid only in final bill (as per clause 50 of the contract, which was in line with the clauses 5 and 16 of SR) and not in the RA bills; and

- As the 25 *per cent* weightage was an incentive payable based on fulfilment of the conditions, *viz*. completion of work within canal closure period, it should not be considered as amount put to tender. Further, as per General Conditions of the SR, the weightage of 25 *per cent* is to be paid over the SR rates.

Thus, premature payment of 25 *per cent* weightage of ₹ 51.58 crore and excess payment of ₹ 4.82 crore contrary to SR/tender conditions, resulted in extending undue financial benefit to Contractor, besides loss of potential interest of ₹ 6.02 crore on the amount prematurely released.

[121] Calculated at State Bank of India Prime Lending Rate of 14.75 *per cent* for 289 days on ₹ 51.58 crore.

[122] Calculated on actual total incentive paid *i.e.* ₹ 53.04 crore - ((53.04/110) × 100) = ₹ 4.82 crore.

Karnataka Road Development Corporation Limited

3.4. Avoidable payment of compensation

Failure to ensure complete access to the land as per the contractual provisions resulted in avoidable extra expenditure of ₹ 35.20 crore.

To cater to the possible increase in toll leviable traffic plying between towns, *viz*. Sandur, Hospet, Kudalagi and Torangal, and with a view to support socio-economic development by providing vital linkages in the central part of Karnataka between Taluks/Districts/State Highways, the Karnataka Road Development Corporation Limited (Company) awarded two works as detailed below:

Table No. 3.4: Works awarded by the Company

Sl. No.	Work	Date of Award	Contract price (₹ in crore)	Conditions of Agreement
1	Development of road from Kudalagi-Sandur to Torangal (Road length of 45.65 kms) - Kudalagi Work.	22.07.2011	94.31	Possession of land corresponding to 60 *per cent* of the total road length at the time of issue of work order to the Contractor and balance after six months.
2	Improvements to road from Honnali town to Honnali Taluk Border (Road length of 44.25 kms) - Honnali Work.	18.03.2013 (site handed over on 27.06.2013)	113.86	Possession of land for minimum road length of 20 kms at the time of issue of work order to the Contractor and balance after six months.

Both works were to be completed within 24 months from the date of issue of work order. The agreements provided for payment of compensation if:

- The Company failed to give possession of the site to the Contractor by the date stated in the contract data (Clause 21); and
- It did not give access to a part of the site to the Contractor by the Site Possession Date[123] stated in the Contract Data (Clause 38.1).

Though the Kudalagi and Honnali works were to be completed by 21 July 2013 and 26 June 2015 respectively, both the works were delayed. While the Kudalagi work was completed in February 2016, the Honnali work was still (November 2017) under progress.

During audit, it was observed that:

For the Kudalagi Work:

- The Company issued the Work Order/Notice to Proceed with Work (NPW) on 22.07.2011 without ensuring possession of land for 60 *per cent* of total road length to be handed over to the Contractor for executing the work. On the date of issue of Work Order, the Company

[123] The date of issue of Work Order.

handed over (17.09.2011) only 14.88 kms (33 *per cent*) of the road length as against the required length of 27.39 kms (60 *per cent*) of the estimated road length of 45.65 kms. Though the encumbrances like electrical utility shifting and tree cutting process were completed during September 2012/October 2012 *i.e.* within the contract period (21 July 2013), the work of shifting the Water Supply pipeline was not completed within the contract period of 21 July 2013.

- The approval of the drawings for Cross-Drainage work took 439 days, and consequently, the work was delayed.
- This matter was also brought to the notice of the Board of the Company, who, admitting delay on its part, approved (August 2014) the claim (October 2013) of compensation of ₹ 25.27 crore by the Contractor as per the agreement. The compensation was in the form of adopting the cost proposed by the Contractor based on relevant Schedule of Rates and approved by the Company. The compensation could have been avoided had the Company handed over the land to the extent of 60 *per cent* of the total road length and provided access to the site on time.
- Further, the Government Order (May 2011), approving entrustment of the work to the Company, contemplated levying of toll on this road to repay the loan of ₹ 112 crore obtained for these works from Housing and Urban Development Corporation Limited (HUDCO). The work, which was to be completed by July 2013, could be completed only in February 2016. Therefore, collection of toll also got delayed. The Company incurred an interest of ₹ 23.24 crore towards the loan. The tender for user collection fee was yet to be processed (November 2017), resulting in potential loss of revenue of ₹ 16.08 crore during the period 2015-17 as estimated by the Company itself.

For the Honnali Work:

- This work was delayed due to the Company’s failure in giving possession of land and access to site as per the agreement, despite frequent communications (March 2014/May 2014/January 2015) from the Contractor.
- The Company, while admitting (August 2015, June 2016) that it did not hand over the full road length as per the conditions of the agreement, accorded two extensions upto December 2016 and agreed for a compensation of ₹ 9.93 crore (based on rates projected by the Contractor because of delay and as approved by the Company as per Clause 38), of which, ₹ 5.29 crore was paid till October 2017.

In response to these issues, the Company replied (October 2017) that:

- The Kudalagi work was taken up in anticipation of obtaining clearance from the departments concerned. However, due to delay in getting clearances from various departments, there was delay in handing over of hindrance free land;
- Almost 80 *per cent* of the Honnali Work was completed before the due date. However, existence of several old structures on this stretch of

land, disputes amongst the localities to part with land and court cases delayed the acquisition of requisite road lengths; and

- In both the works, the Company had the option to either acquire land and shift the utilities before awarding the project, or start the project wherever the encumbrance-free land was available and initiate parallel action for clearing encumbrances in other parts. The Company took the latter option to ensure progress.

The fact remains that the Company did not finalise the contract keeping the above uncertainties in mind. Otherwise, the Company could have included an appropriate clause in the contract, for handing over only those sites first, where encumbrance-free land was available. It could also initiate parallel action for clearing encumbrances in other parts, without having to incur heavy compensation for non-adherence to contractual obligations.

Similarly, though the Company was aware that delay in approval of drawings was one of the events for payment of compensation, it did not ensure timely approval of drawings.

The Sub-Committee formed (May 2014) to look into the issue of price adjustment and review of rates, suggested (June 2014) identifying the officers responsible for the delay and fixing responsibility. However, the Company did not fix any such responsibility till date (October 2017).

Thus, due to improper planning in handing over of land and delay in approval of drawings, the Company incurred avoidable compensation of ₹ 35.20[124] crore, of which, ₹ 4.64[125] crore was yet to be paid.

The matter was referred (November 2017) to the Government and their reply was awaited (December 2017).

Karnataka Power Corporation Limited

3.5. Injudicious procurement of spares

Procurement of spares without ensuring environmental clearence for operations resulted in write-off of spares worth ₹ 5.04 crore.

Karnataka Power Corporation Limited (Company) operated six units of diesel based generating power plants (DG Plant), each having a capacity of 18 MW, in Yelahanka, Bengaluru. Under Sections 25 and 26 of Water (Prevention and Control of Pollution) Act, 1974, and under Section 21 of Air (Prevention and Control of Pollution) Act, 1981, (Acts), every project proponent was required to obtain the Consent For Operation (CFO) from the State Pollution Control Board every year. The Company obtained (23 May 2008) CFO from the Karnataka State Pollution Control Board (KSPCB) upto 30 June 2010. In the same CFO, KSPCB ordered (May 2008) the Company to submit a time-bound commitment to contain the stack emissions well within the prescribed limits,

[124] ₹ 25.27 crore for Kudalagi Work + ₹ 9.93 crore for Honnali Work.

[125] Total compensation (₹ 9.93 crore) – Amount already paid (₹ 5.29 crore).

explore the possibility of using the fuel oil LSHS (Low Sulphur Heavy Stock) with sulphur content less than one *per cent* and change over to gas at the earliest. As the Company did not comply with the stipulations, it could not get CFO for the period from 1 July 2010 to 30 June 2011.

In the meantime, Company procured spares worth ₹ 14.50[126] crore between March 2011 and November 2011 against the Purchase Orders (PO)[127] floated during the period July 2010 to February 2011 to operate the plant. It was pertinent to note that before placing the POs, the Company already had a stock of spares worth ₹ 12.07 crore.

KSPCB ordered (September 2010 and again in July 2011) the Company to submit a time-bound commitment with an action plan regarding completion of maintenance/servicing units of the DG Plant, changeover to Liquefied Petroleum Gas (LPG) and to dispose of the accumulated oil sludge to the KSPCB-authorised recyclers. KSPCB observed that despite issue of notices and directions (May 2008, September 2010, June 2011 and June 2012) action was not initiated to control pollution. Thereafter, KSPCB ordered (August 2012) stoppage of operations of four out of six units due to non-compliance to its directions and issued CFO to operate the two units. Finally, based on further orders (May 2013) of KSPCB, the Company suspended (August 2013) the operations of the DG Plant in its entirety.

Consequently, Company resolved (February 2014) to establish a gas power plant by dismantling the DG Plant and impaired the entire plant during 2014-15. Not being able to dispose of the unutilised spares, the Company ultimately wrote off (July 2016) inventory of spares worth ₹ 13.91crore, which included spares worth ₹ 5.04 crore purchased between March 2011 and November 2011.

Thus, non-compliance to environmental laws, regulations and norms required for operation of its plant, and consequent shut-down of its operations, resulted in accumulation of inventory and ultimate write-off of spares worth ₹ 13.91 crore, including ₹ 5.04 crore worth of freshly acquired spares. Considering the frequent notices and the fact that the orders of KSPCB were binding, there was enough evidence for the Company to realise that they were falling short of meeting expected standards and were liable to be ordered to shut down. Hence, it was imperative to plan the procurement only to the extent immediately required.

The Company replied (September 2017/October 2017) that procurement of spares was done keeping the following in mind:

- Carrying out of regular Schedule Maintenance Works of all units as per the recommendations of Original Equipment Manufacturer (OEM);

[126] This amount was arrived at by calculating the costs of the materials, after conversion from Euro, at the time of receipt of the materials and their accounting.
[127] Purchase Order (PO) No. 55 dated 26.07.2010, PO No. 56 dated 26.07.2010 and PO No. 57 dated 14.02.2011.

- Attending to breakdown maintenance of all six units in order to meet the requirement of Load Dispatch Centre and to achieve generation target; and

- That KSPCB only wanted it to initiate certain remedial measures to tackle pollution and did not intend to stop the plant operations completely in 2009-10.

The reply was not justified for the following reasons:

- The units were shut down due to high stack emissions, arising out of want of proper maintenance. This should have been evident to the Company due to their repeated non-compliance of guidelines/ strictures issued by KSPCB in this regard; and

- The Company, being fully aware that the plant was to shift over to gas, could have exercised adequate discretion to limit its order to the barest minimum.

Audit is therefore of the view that there was no necessity for placing further purchase orders as there was already a stock of ₹ 12.07 crore lying at the time of placing of the orders.

As a result, spares piled up and huge stock of materials worth ₹ 13.91 crore, which included new purchases of ₹ 5.04 crore, was written off. The Company, by exercising prudence in the purchases, could have avoided this write-off, especially ₹ 5.04 crore.

The matter was referred (October 2017) to the Government and their reply was awaited (November 2017).

Gulbarga Electricity Supply Company Limited

3.6. Lack of monitoring of the works

Failure to encash bank guarantee and lack of monitoring works resulted in loss of ₹ 1.17 crore.

Gulbarga Electricity Supply Company Limited, Gulbarga (Company) invited (January 2011) bids on partial turnkey basis for the construction of independent 11 KV feeders to non-agricultural loads and bifurcation of agricultural loads from the existing feeders in Basavakalyan and Humnabad talukas of Bidar District under Phase II of Niranthara Jyothi Yojana Scheme. The lone bid of Srininvasarao Pokuri, Electrical and Civil Contractors, Hyderabad (bidder) at ₹ 4.89 crore for Basavakalyan and ₹ 2.74 crore for Humnabad, totalling ₹ 7.63 crore was approved (July 2011) by the Purchase Committee of the Company. Apart from the materials to be supplied by the bidder[128], poles, conductor, insulators with GI pins and transformers costing ₹ 15.90 crore was to be supplied by the Company.

The Letter of Intent (LOI) was issued to the bidder in August 2011. The Detailed Work Award (DWA) was issued (February 2012) to PSR Elecon Pvt. Ltd., Hyderabad (Contractor), who took over the bidder's firm. As per the conditions of the DWA, the works were to be completed within 180 days from the date of issue of LOI. The Contractor furnished Performance Bank Guarantee (BG) for ₹ 0.76 crore being the 10 *per cent* of the value of the contract, with validity period upto 12 April 2015.

As the progress of the work was very slow even after several notices (September 2011 to October 2015), the Company terminated (November 2015) the contract and proposed for imposition of liquidated damages as per clause 14 of the General Terms and Conditions of Contract, forfeiture of Performance Guarantee and completing the balance work at risk and cost of the contractor.

At the time of termination of contract, the Contractor commissioned only eight out of 23 feeders. While 14 were at different stages of completion, work on one feeder was not taken up. The Contractor supplied materials worth ₹ 3.30 crore against the order value of ₹ 4.55 crore and completed erection worth ₹ 0.61 crore against the order value of ₹ 3.09 crore. The Company made payment of ₹ 2.42 crore against ₹ 3.91 crore being the value of bills submitted by the Contractor. Further, the Company supplied materials valued ₹ 11.18 crore to the Contractor. The Contractor did not respond to the request of the Company for undertaking a joint survey to ascertain the usage of material drawn from its stores. The Company conducted (November 2016) a survey of the inventory of the departmental material and noticed that the material worth ₹ 1.17 crore out of ₹ 11.18 crore was neither utilised in the work nor returned to the stores by the Contractor.

Audit observed that:

- Though the Company identified (January 2013) the reasons for slow progress as poor labour batches at site, it did not insist the Contractor to increase the labour batches and monitor the progress of work against the supply of materials from its stores, resulting in non-return of materials worth ₹ 1.17 crore in works;

  Clause 14.2 of the General Terms and Conditions of Contract provided for recovery of liquidated damages, which worked out to ₹ 1.52 crore. The Company withheld ₹ 1.49 crore (towards penalty) as retention money due to slow progress from the beginning;

- The Contractor provided BG for ₹ 0.76 crore as performance guarantee. The Company did not monitor the validity of BG, which expired in April 2015. The Company did not encash the same within

[128] 32 items like Conductor, Copper Control Cables, Lightning Arresters, Isolators, DP Structures, Guy Set, Clamps, Earth Electrodes and TC Sets, *etc.*

validity period despite slow progress of work. The Company, thus, lost an opportunity to recover ₹ 0.76 crore against the amount due from the Contractor;

- The termination order issued in November 2015 imposed forfeiture of performance guarantee while knowing very well that the validity of BGs submitted by the Contractor was not extended. The same order also instructed the Executive Engineer (Electrical) of Humnabad Division for undertaking joint inspection of the inventory. This inspection was carried out in the absence of the Contractor during November 2016, *i.e.* after a delay of one year. This clearly showed lack of persuasion of recovery/monitoring of the works by the Company; and

- Even though the termination letter indicated completion of balance work at risk and cost of the Contractor, the Company was yet (May 2017) to take up the balance work estimated at ₹ 17.38 crore including supply of materials and take recourse for recovery.

In its reply (May 2017), the Company's Chief Engineer (Electrical) stated that the cost would be recovered out of the pending bills and there would be a shortage of ₹ 43.75 lakh even after adjusting the amount from other works. As ascertained, the Company did not recover any amount till November 2017.

Thus, due to failure to encash BG and lack of monitoring the works, the Company suffered a direct loss of ₹ 1.17 crore due to non-return of materials in works, lost opportunities to recover ₹ 0.76 crore from the Contractor, and the project did not achieve the objectives of Niranthara Jyothi Yojana for over four years beyond target date in the two taluks, till date.

The matter was referred (June 2017) to the Government and their reply was awaited (November 2017).

The Mysore Paper Mills Limited

3.7. Injudicious expenditure

Imprudent decision of the Company to retain Corporate/Registered Office in Bengaluru resulted in injudicious expenditure of ₹ 1.28 crore.

The Mysore Paper Mills Limited (Company) was operating a paper mill and a sugar mill in Bhadravathi. Owing to huge accumulated losses and erosion of net worth, the Company registered with Bureau of Industrial and Financial Restructuring (BIFR) as a sick unit in March 2012. The Government of Karnataka (GoK) was providing financial assistance to the Company. The Company decided (September 2015) to operate its business directly from Bhadravathi retaining six of its staff in Bengaluru to attend to Managing Director's secretarial matters and marketing the products of the Company. The operation of the paper mill was stopped in November 2015.

The Karnataka State Bureau of Public Enterprises (KSBPE), GoK, stipulated (October 1994) that while hiring rented premises by the Public Sector Enterprises (PSEs), proper assessment of the requirement of space with reference to staff strength should be made and the need for hiring the building in commercial/expensive locations should be related to the nature of the functions of the enterprise. It allowed expensive accommodation only in cases where enterprises maintained certain commercial standards keeping in view the competition faced by them in the market. GoK also emphasised (March 2003) that in the wake of Public Sector Reforms, the PSEs should be run and managed effectively and efficiently.

In violation of these norms and instructions of GoK, the Company hired (July 2015) a premises of 5,500 sq. ft. at Bengaluru, for a period of three years, which was way above its requirement (out of the 40 employees, only six were retained in Bengaluru, the remaining were transferred to Bhadravathi) without justifying the necessity in terms of staff strength, the functions of the enterprise or the competition it faced. The monthly rent was ₹ 5.27 lakh[129] and the total rent paid was ₹ 1.28 crore[130] from October 2015[131] till now (September 2017). In view of the virtual closure of operations due to financial crisis, the action of the management was against the interest of the Company and lacked financial propriety and prudence. The other option available for the Company was to examine the possibility of shifting to its own building, which was being used as a guest house.

On the issue being pointed out by Audit (April 2017), the Government replied (June 2017) that arrangements were now made to share the entire space to Bengaluru B. R. Ambedkar School of Economics (School of Economics) except two office cabins and two work stations in the premises (for the Company) with effect from 15 May 2017 and there would be no further expenditure on the rents being incurred. Further, it was replied that keeping the commercial interest in mind, Company chose the said office space initially for sufficient space and proximity and that month-wise stock and sale of ₹ 152 crore could be achieved between November 2015 and March 2017 only by having the office in a centralised area.

The reply was not justified on the following grounds:

- Sub-letting of the premises was not allowed under clause 7 of the agreement with Karnataka State Co-operative Federation Limited (lessor), which specifically mentions that "The lessees shall not sub-let or part with the possession of schedule premises or any part thereof to anyone else or assign or transfer their rent/leasehold rights in any manner whatsoever". Therefore, sub-letting the premises under the terminology of sharing was void *ab initio*;

[129] ₹ 4.62 lakh *plus* service tax and cess.

[130] Rent at ₹ 5,26,880 per month including all taxes for October and November 2015, ₹ 5,28,990 from December 2015 to May 2016, ₹ 5,31,300 from June 2016 to June 2017 and ₹ 5,45,160 from July 2017 to September 2017.

[131] Since the decision to shift to Bhadravathi was taken in September 2015.

- The Company, however, kept the lessor informed (November 2015) of their proposed action to share space with any other tenants of lessor. Though no response was forthcoming from the lessor, the Company went ahead with its action of sharing space with the School of Economics in May 2017. However, the Company could not enter into a valid agreement with the School of Economics; and

- The month-wise stock and sale of ₹ 152 crore could have been achieved even with the smaller space as the space required was only for meetings and tendering. Hence, the contention of the Company did not justify the action of keeping a space of 5,500 sq. ft.

Thus, Company did not visualise the financial impact of hiring a bigger building at Bengaluru for its Registered Office, which resulted in injudicious expenditure of ₹ 1.28 crore. In the absence of an enforceable agreement, Company may incur an additional burden of ₹ 49.06 lakh for a further period of nine months at ₹ 5.45 lakh per month.

Cauvery Neeravari Nigama Limited

3.8. Inefficient management of surplus funds

Loss of interest of ₹ 1.16 crore due to non-availing of auto-sweep facility for the funds in its current account.

The Cauvery Neeravari Nigama Limited (Company) executes irrigation projects, which are funded through capital grants in the form of equity from Government of Karnataka (GoK) besides borrowings through issue of bonds. The Company parks the said funds in its bank accounts maintained by Head Office and appropriates funds to its Divisions for release of various payments to contractors, suppliers, salaries to employees, *etc*. Prudent management of funds entail maintenance of adequate liquidity to meet the expenses and optimal returns on surplus funds.

Audit observed that the Board of Directors of the Company *inter-alia* authorised (June 2003) the Managing Director to convert temporary surplus funds into interest bearing bank deposits or to invest otherwise.

A review of the management of surplus funds of the Company between April 2013 and January 2017 revealed that the Company parked funds upto ₹ 366.88 crore in its current account without opting for auto-sweep facility with State Bank of Mysore (SBM).

The Company should have availed auto-sweep facility[132] in order to earn interest on the surplus funds. It was also observed that the Union Bank of

[132] Auto-sweep facility is an option for bank account holders wherein any amount above the threshold limit is automatically converted into fixed deposit for flexible maturity period at the interest rates applicable to term deposits. It also facilitates automatic transfer from the fixed deposit to current account if the balance in the current account falls below the threshold limit.

India, a Nationalised bank, also offered (August 2013) current account with auto-sweep facility to the Company and the Company did not avail the same.

By parking the unutilised/surplus funds in current account without auto-sweep facility, which combine the liquidity of a current account with returns of term deposits, the Company lost an opportunity to earn an interest of ₹ 1.16[133] crore.

The Company replied (June 2017 and August 2017) that during the period 2012-17, it invested surplus funds in various banks as interest bearing deposits and earned an interest of ₹ 11.30 crore. Further, SBM was requested (April 2017) for auto-sweep facility, which was provided only from June 2017. It was also replied that interest rate in auto-sweep facility was 3.75 *per cent*, whereas Company earned 6.10 *per cent* by investing the surplus funds.

The reply was not convincing in the instant case, as the subject matter deals with the surplus amount, which was not converted into interest bearing deposits and was lying idle in a current account. The interest of ₹ 11.30 crore, as informed by the Company, pertains to the funds that were invested in term deposits. Hence, the reply did not address the Audit contention of an opportunity foregone for earning additional interest of ₹ 1.16 crore as pointed out above. Instead of opting for similar facility with SBM in 2013 itself, when offered by Union Bank of India, the Company took the initiative to avail auto-sweep facility with SBM only in April 2017 *i.e.* after Audit commented on it (April 2016).

The reply regarding low interest rate was not relevant as the interest rate of 3.75 *per cent* (November 2016 to January 2017) for auto-sweep facility was adopted by Audit as a conservative basis only, considering the least rate of interest in State Bank of Mysore, whereas the Company considered the fixed deposit rate, which are not comparable to each other for reasons aforesaid in this paragraph.

Therefore, despite the latest attempts by the Company to opt for auto-sweep facility, the fact remains that the Company lost out an opportunity for earning additional interest of ₹ 1.16 crore between 2012 and 2017.

The matter was referred (July 2017) to the Government and their reply was awaited (November 2017).

[133] Calculated at the lowest rate of interest (4 *per cent* per annum from April 2013 to October 2016 and 3.75 *per cent* per annum from November 2016 to January 2017) on the lowest amount of balance during a particular month.

Karnataka State Small Industries Development Corporation Limited

3.9. Avoidable expenditure

Non-acceptance of bank guarantee submitted by the *lowest* bidder *and* consequent cancellation of bid resulted in escalation of cost of the work by ₹ 86 lakh.

The Karnataka State Small Industries Development Corporation Limited (Company) invited tenders (July 2009) for development of infrastructure works like construction of roads, construction of drains, deck slab, asphalting of roads, water supply and allied works in Industrial Estate at Ranebennur II stage. The quote of Shri. C. M. Patil (bidder) at ₹ 1.07 crore, which was 11.45 *per cent* less than the estimated tender amount of ₹ 1.21 crore was the lowest. The Technical Sub Committee (TSC) of the Company accorded approval (November 2009) for entrustment of work to the lowest bidder. Accordingly, the Company issued (November 2009) Letter of Intent (LOI) to the lowest bidder with a stipulation to furnish the Bank Guarantee (BG) from a nationalised bank for ₹ 14.00 lakh and enter into an agreement by 7 December 2009, failing which, it would be presumed that the bidder has no interest in the work and action would be initiated as per terms and conditions of the tender.

The lowest bidder requested (7 December 2009) the Company for extension of time upto 31 December 2009 for submission of BG as the banker required 15 to 20 days to issue BG. TSC, however, noted that the agency did not come forward to furnish the BG and recommended (14 December 2009) cancellation of bids and retendering immediately. Accordingly, the work was retendered (21 December 2009). Aggrieved by the cancellation of the bid, the bidder approached (29 December 2009) the Hon'ble High Court of Karnataka, Bengaluru. The Hon'ble High Court, in its interim order (31 December 2009), stayed the operation of the tender notification dated 21 December 2009 issued by the Company till the next date of hearing subject to the condition that the petitioner, *i.e.* the bidder, should produce a BG on or before 4 January 2010. The bidder, in compliance to the court orders, submitted BG to the Company on 4 January 2010 and requested to execute an agreement to start the work. The Company did not take any action on receipt of BG. The case was finally disposed of during July 2012 by the Hon'ble High Court of Karnataka with a direction to refund BG within two weeks and if the work was retendered, to allow the bidder to participate in the tender process.

The Company returned (July 2012) the Bank Guarantee and retendered the same work in November 2012. The work was finally awarded (February 2013) to a lone bidder at a negotiated rate of ₹ 2.13 crore. The work was completed in March 2014 at a cost of ₹ 1.93 crore, which was ₹ 86 lakh more than the lowest bid amount in the first bid received in November 2009.

Audit observed (April 2016) that:

- The Company violated the Court Orders dated 31 December 2009 by not allowing the Contractor to carry out the work, even though BG was submitted as per the Court Order;

- As per clause 6 of tender conditions, where the rates quoted were below the tendered rates, Bank Guarantee was to be submitted at the time of issue of Work Order. Accordingly, there was sufficient time available for the Contractor to submit BG. However, the Company, in its Letter of Intent, stipulated to furnish the BG and execute the agreement with relevant documents by 7 December 2009;
- Further, when the issue was discussed in the Technical Sub Committee Meeting (14 December 2009), the Company suppressed the fact that the bidder requested for time to furnish BG and conveyed that the agency did not come forward to submit BG. Based on this information, the Committee decided that the work should be re-tendered;
- When the Contractor furnished BG as per the directions of the Court within the stipulated time, (*i.e.* 4 January 2010), the Company did not take cognizance of the same and issue work orders. Instead, the Company remained silent; and
- There were no recorded reasons for not waiting till 31 December 2009 for the bidder to submit BG. Neither the tender documents nor the LOI stated that the work was of urgent nature. While retendering would take at least 60 days to fructify considering the provisions of The Karnataka Transparency in Public Procurements Act, 1999, the Contractor would have submitted BG within three weeks after the stipulated time. Therefore, the urgency showed by the Company in cancelling the bid and retendering the work lacked rationale.

  All these actions indicated lack of commitment to get the work completed in time.

The Company replied (September 2016) that though the bidder submitted BG as per the directions of the Hon'ble High Court on 4 January 2010, the Court did not direct the Company to issue work order to the agency. Hence, the work order was not issued and kept in abeyance till the final judgment. The delay was unavoidable and subsequent entrustment at higher rates was inevitable.

The reply was not correct, as it was evident that when the Hon'ble High Court extended the date for submission of BG by the bidder, the Company should have considered the BG and entrusted the work to the lowest bidder. The spirit of the interim order allowing time to submit BG to bidder should have been taken cognisance of.

Thus, non-acceptance of the request of the lowest bidder for extension of time for submission of BG and not considering the BG submitted by the bidder as per the directions of the Hon'ble High Court of Karnataka, led to cancellation of the bid. Retendering the work resulted in executing the work at an extra cost of ₹ 86 lakh and also caused delay in providing the necessary infrastructure to the industrial estate.

The matter was referred (June 2017) to the Government and their reply was awaited (November 2017).

Karnataka State Handicrafts Development Corporation Limited

3.10. Non-implementation of Enterprise Resource Planning system due to ill planning

Non-completion of Enterprise Resource Planning system even after ten years resulted in unfruitful expenditure of ₹ 75.97 lakh.

Karnataka State Handicrafts Development Corporation Limited (Company) is involved in development of handicrafts since 1964. As the existing Computerised Accounting System become outdated, the Company decided (2007) to implement Enterprise Resource Planning[134] (ERP) system to aid in its functioning.

Between 2007-08 and 2012-13, the Company tried to implement this project with the help of five consultants and a team of Technical Experts at various times and corresponding stages. One of the consultants opined that ERP was not suitable, while another one recommended a mini ERP. The Technical Experts opined that the process of vendor selection was not correct. Due to the confusing multiplicity of opinions, the Company could not go ahead with their suggestions in accomplishing its goal even after having spent ₹ 4.10 lakh towards these consultations.

The Company (March 2012) eventually appointed Karnataka State Electronics Development Corporation Limited (KEONICS), a State PSU, as a consultant, considering that it was exempted from the purview of Karnataka Transparency in Public Procurement Act, 1997, as far as tendering was concerned, but without assessing the capability of KEONICS to handle a project of this nature. The Company entered into two agreements with KEONICS on 27 August 2012 and 14 September 2012 for engaging consulting agencies, selection of implementation partners, programme management and for facilitating and implementation of SAP. Accordingly, as per these agreements, KEONICS was to select an implementing agency to implement SAP and operate and maintain SAP till September 2014. KEONICS was to make ERP fully functional for a consideration of ₹ 40.65 lakh and the Company was to provide necessary infrastructure. KEONICS selected Unisoft as the implementing agency. The Company procured the software, based on KEONICS's recommendation, from SAP and paid ₹ 44.61 lakh[135] as per the software supply agreement dated 17 August 2012. As of October 2017, KEONICS was paid an amount of ₹ 25.37 lakh towards facilitating SAP implementation.

The Company did not pay Annual Maintenance Charges (AMC of ₹ 9.74 lakh per annum) to SAP and was liable to pay penal interest to them at 3 *per cent* above prime lending rate per annum as per the agreement. SAP terminated the support services for the software from October 2015 as its payments remained

[134] Enterprise Resource Planning (ERP) is business process management software that allows an organisation to use a system of integrated applications to manage the business and automate many back office functions related to technology, services and human resources.

[135] ₹ 41.36 lakh as licence fee and ₹ 3.25 lakh as maintenance fee for four months ending December 2012.

due since January 2013. Consequently, the Company was not able to get the latest updates and support from SAP. Unisoft stopped development of the System in April 2017.

Having spent ₹ 75.97 lakh[136], the Company was yet (August 2017) to make any substantial progress in operating the ERP system even after lapse of almost ten years since inception.

Audit observed that the reasons for the inability to operationalise the ERP system in a decade were as follows:

- The Company went ahead in implementing such a technically critical project without any criteria for selection of consultant and also started implementing the ERP without any ground work to assess its own requirements; and
- Despite appointing so many consultants/experts, it did not give them any clear cut directions as to what was expected of them, nor made any use of their expertise, defeating the very purpose of their selection.

The Company implemented only the Material Management Module, which too was not working since April 2017.

With SAP not supporting the software for non-payment of support services fee, Unisoft withdrawing from the implementation, KEONICS failing to make it functional and the Company not being able to plan and decide the course of action to follow, the Board of the Company decided (July 2017) to float fresh tenders for implementation and customisation of ERP.

Thus, due to non-implementation and full operationalisation of SAP till date, the expenditure of ₹ 75.97 lakh incurred on the project proved to be unfruitful so far, nearly a decade after the project was initiated.

The matter was referred (September 2017) to the Government and their reply was awaited (November 2017).

Karnataka Urban Infrastructure Development and Finance Corporation Limited

3.11. Wrong specification in bid

Discrepancy in the tender document was ignored while evaluating the bids, which resulted in extra cost of ₹ 55.76 lakh.

The Karnataka Urban Infrastructure Development and Finance Corporation Limited (Company) is a nodal agency for implementation of various infrastructure projects in urban localities, through City Municipal Councils. The projects were funded through external aid or internal borrowings.

The Company undertook (2010) the work of Improvement to Water Supply System in Chamarajanagar City Municipal Council under Asian Development Bank (ADB) assisted North Karnataka Urban Sector Investment Program.

[136] Includes cost of consultancy of all, including KEONICS (₹ 26.82 lakh), cost of software (₹ 44.61 lakh) and others (₹ 4.54 lakh).

The work comprised of rehabilitation and strengthening of electro-mechanical works, supplying and laying of Ductile Iron (DI) pipes, construction of service reservoir, supplying and laying PE/DI[137] distribution pipeline network of length 58 kms, providing and fixing bulk flow meters with accessories. The Detailed Project Report (DPR) prepared (2009) by the Project Consultant estimated the cost at ₹ 6.74 crore including use of DI pipes of length 1,815 metres at ₹ 6,334 per metre for connecting feeder main from balancing reservoir to individual Elevated Service Reservoirs (ELSR). The Company, however, mentioned the above item as Pre Stressed Concrete (PSC) Pipes instead of DI Pipes in the Bill of Quantity (BOQ No. 6) of bid documents.

The work was tendered (September 2010) and the quote of Suprada Construction Company, Engineers and Contractors, Bengaluru (Contractor) was evaluated as the lowest at ₹ 7.56 crore, with DRS Infratech Pvt. Ltd (DRS) being the L2 bidder at ₹ 7.94 crore. The Project Consultant brought the discrepancy in the specification in bid document for pipe (from DI to PSC) to the notice (January 2011) of the Project Manager, with a copy each marked to the Managing Director and the Chief Engineer of the Company. He further suggested to obtain confirmation from the bidders that the rates quoted were for 500 mm DI pipe only under item 2, BOQ No. 6 and to safeguard the Company's interest. The Project Manager replied (February 2011) to the Consultant that it was too late to take any action as the financial evaluation report was about to be placed before the Bid Evaluation Committeeor[138]. The Bid Evaluation Committee, which evaluated the bids technically and financially did not even discuss this discrepancy while evaluating. However, the tender was finalised and the Company entered into an agreement (June 2011) with the Contractor.

The Chief Engineer, during his inspection of the site, observed (June 2011) that there was no provision for PSC pipes in the Detailed Project Report and directed the Assistant Executive Engineer to prepare a detailed variation statement showing the variation in the value of DI Pipe and PSC Pipe and get the same approved from the competent authority. The work was programmed for completion in November 2012 and was actually completed only during May 2015. By then, the Company paid an amount of ₹ 11.04 crore already.

In this regard, Audit observed that:

- The Bid Evaluation Committee ignored this discrepancy between DI and PSC pipes while evaluating the technical, and later the financial, bids;
- Like the Project Manager who ignored the suggestion of the Consultant to rectify the error before finalising the bid, the Managing Director and the Chief Engineer of the Company, though being aware of the same, neglected the error;
- The Financial Bid was opened on 11 January 2011 and the Empowered Committee finalised the bids only on 26 May 2011. Therefore, there

[137] Poly Ethylene/Ductile Iron pipes.
[138] Comprising Executive Engineer, Assistant Executive Engineers, Procurement Specialist Consultant and Team Leader Consultant.

was ample time available to the Company to review the bids keeping in mind the suggestions (January 2011) of the Consultant;

- The Contractor quoted ₹ 4,600 per metre for PSC pipes and ₹ 8,300 per metre for DI pipes, whereas DRS quoted ₹ 6,500 and ₹ 7,500 respectively. The Company without rectifying the error regarding the type of pipes required, finalised the bid in favour of the Contractor;

  The Company, also stated that it evaluated the quotes of both L1 and L2 bidders for the item (BOQ No. 6) and compared it with DI pipe rates only. Considering this, the Contractor would have become the second lowest (L2) and DRS the lowest (L1) as detailed below:

Table No. 3.11: **Evaluation of bids considering DI Pipe**

Sl. No.	Particulars	Contractor (₹ in crore)	DRS (₹ in crore)
1	Total amount quoted	7.56	7.94
2	*Less*: Value of pipes	0.83[139]	1.18[140]
3	Value quoted for other works /items (Sl. No. 1 – Sl. No.2)	6.73	6.76
4	Considering DI pipe for the entire length of 2,765 mtrs.	1.51[141]	1.36[142]
5	Value of quote considering DI pipe (Sl. No. 3 + Sl. No.4)	8.24 (L2)	8.12 (L1)

  The contract should have been, therefore, given to DRS, the L_1 bidder if only DI pipes are considered, instead of PSC pipes; and

- As against the bid quantity of 1,815 metres of PSC pipes, 2,065 metres actually were used during the course of execution. At the time of execution, the Contractor claimed the differential cost of ₹ 3,700 per metre (₹ 8,300 *less* ₹ 4,600) for laying DI pipes and the Company paid the differential amount on the executed quantity. Considering DRS as L1, the cost worked out to ₹ 20.65 lakh as against ₹ 76.41 lakh paid to the Contractor (₹ 3,700 × ₹ 2,065 metres)[143]. By considering the suggestion of the Consultant, the Company could have avoided extra expenditure of ₹ 55.76[144] lakh.

The Company replied that the mistake was due to a typographical error and rectification of the same could have been possible only before closure of bid submission date in the form of corrigendum. Further, it was replied that the Empowered Committee decided to negotiate with the L1 bidder, *i.e.* the Contractor after obtaining approval of ADB. Since ADB did not permit the same, the Company was not in a position to discuss about the financials of the bids with the bidders.

[139] 1,815 metres × ₹ 4,600/metre = ₹ 83,49,000 or ₹ 0.83 crore.
[140] 1,815 metres × ₹ 6,500/metre = ₹ 1,17,97,500 or ₹ 1.18 crore.
[141] 1,815 metres × ₹ 8,300/metre = ₹ 1,50,64,500 or ₹ 1.51 crore.
[142] 1,815 metres × ₹ 7,500/metre = ₹ 1,36,12,500 or ₹ 1.36 crore.
[143] ₹ 7,500-₹ 6,500 = ₹ 1,000 × 2,065 = ₹ 20,65,000.
[144] ₹ 76.41 lakh - ₹ 20.65 lakh = ₹ 55.76 lakh.

The reply was not justified as the Company could have sought clarification from the bidders regarding the rate, since the rate called for in the BOQ was for DI pipes. Else, a certificate from the bidders that the rates quoted were for DI pipes only could have been obtained as suggested by the Consultant. Even the drawings enclosed along with the Bid documents mentioned DI pipes only.

Thus, wrong evaluation due to negligence of the officers concerned resulted in awarding the work to a bidder, who was not the lowest at an extra cost of ₹ 55.76 lakh.

The matter was referred (September 2017) to the Government and their reply was awaited (November 2017).

Statutory Corporations

Karnataka State Financial Corporation

3.12. *Sanction, Disbursement and Security Realisation of Loans and Advances*

Introduction

3.12.1. Karnataka State Financial Corporation (Corporation) was established in the year 1959, under Section 3 (1) of the State Financial Corporations Act, 1951, which mandates extending financial assistance to entrepreneurs for setting up tiny, small and medium scale industrial units in the State with special focus to industrially backward areas.

The main activities of the Corporation were sanctioning and disbursement of loans for setting up of projects, Working Capital and Term Loan (WCTL) assistance, besides sale of e-stamps (stamp papers). The Corporation earned profits from 2009-10 onwards.

The details of loan sanctioned, disbursed, outstanding, net profit and amount under Non-Performing Assets (NPA) for the five-year period from 2012-13 to 2016-17 are as follows:

Table No. 3.12.1: Loan sanctioned, disbursed and outstanding, net profit and amount under NPA for the five-year period from 2012-13 to 2016-17

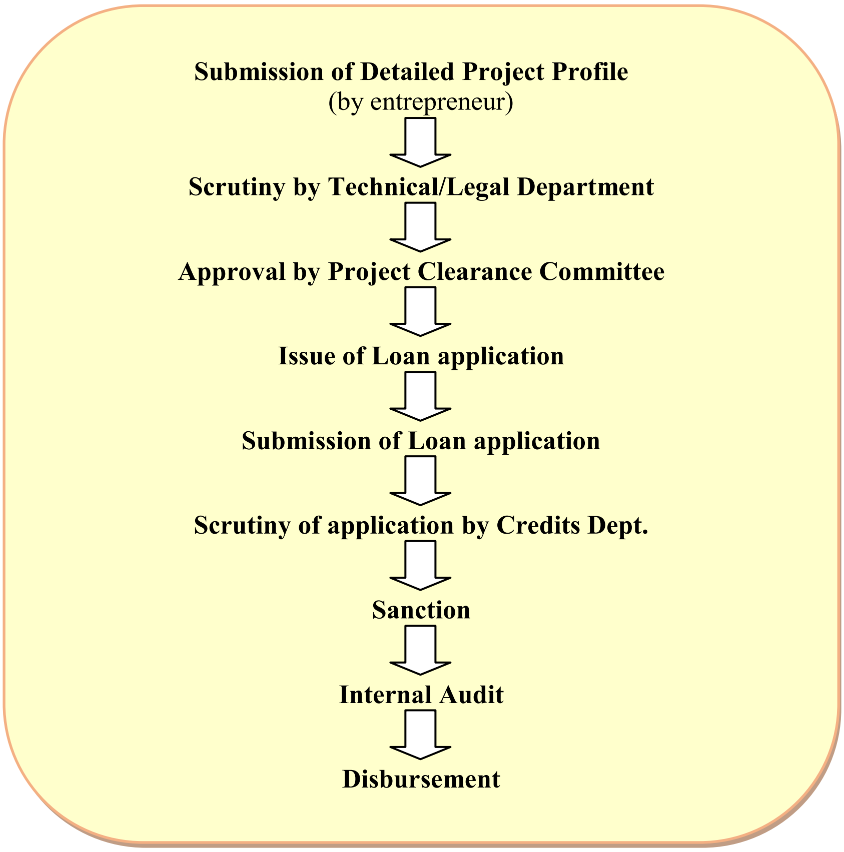
(₹ in crore)

Sl. No.	Year	Loan Sanctioned	Loan Disbursed	Loan Outstanding	Net Profit	Amount under NPA
1	2012-13	944.06	734.70	1,885.90	17.02	331.20
2	2013-14	909.26	707.47	2,018.21	11.42	327.73
3	2014-15	675.15	553.62	1,827.89	44.47	151.63
4	2015-16	731.94	566.36	1,813.09	32.13	245.12
5	2016-17	733.43	614.38	1,801.26	29.93	217.80
	Total	**3993.84**	**3176.53**	**9346.35**	**134.97**	**-**

The Corporation undertook a major restructuring during April 2012 by transferring all operational activities to Branches and retaining only policy, planning and control activities at the Head Office.

3.12.2. The procedure/process involved in sanction and disbursement of loan is depicted in the flow chart:

Chart 3.12.1: Flow diagram of Loan Approval Process



An up-front fee of 0.5 *per cent* towards application processing was collected before disbursement of sanctioned loan.

3.12.3. The Audit Objective was to assess whether the Corporation complied with all the procedures, rules and regulations, norms and policies under SFC Act, and Lending Policy of the Corporation in sanction and disbursement of loans and for security realisation for non-performing assets.

3.12.4. The following sources of criteria were adopted as a benchmark for compliance audit:

- The State Financial Corporations Act, 1951;
- Lending policy and circulars of the Corporation;
- State Industrial Policy and circulars issued by the Government; and
- Rules and circulars on Lending Policy issued by the Government of India and the Reserve Bank of India.

3.12.5. The Compliance Audit covered sanction, disbursement of loan and security realisation in respect of NPA during the five-year period from 2012-13 to 2016-17. A suitable sample covering more than 25 *per cent* of the

32 branches was selected[145] for test-check.

The reply of the Government received in October 2017 was suitably incorporated in the Report.

Audit findings

Procedural lapses in Sanctioning of loans

Delay in processing of Loan

3.12.6. As per Clause 10.1 of the Lending Policy (2015) of the Corporation, the appraisal section shall finalise the credit appraisal within 10 days in respect of cases where the project cost was below ₹ 100 lakh and within 20 days in respect of cases where the project cost was above ₹ 100 lakh and submit the loan memorandum for sanction to the appropriate sanctioning authority through proper channel. Further, the loan sanctioning authority should decide on the loan memorandum in three days in respect of the former and seven days in respect of the latter.

The time allowed for sanction of various types of loan are as below:

Table No. 3.12.2: **Time allowed for sanctioning various types of loans**

Sl. No.	Sanction	
	Project cost	Time required
1	Below ₹ 1 crore	13 days
2	Above ₹ 1 crore	27 days

In respect of loans where the sanctioning authority was the Executive Committee or the Board of Directors, the time limit prescribed for sanction of loan depends on the meeting of the Executive Committee or the Board, as the case may be.

It was observed that there were delays in sanction in 120 out of 349 selected cases (34 *per* cent) in nine selected branches, with the period of delay ranging from one day to 592 days, as detailed in table below:

Table No. 3.12.3: **Range of delay in days**

Sl. No	Delay in number of days	No. of cases
1	1-30	88
2	31-60	20
3	61 and above	12

The Government replied that the delay was due to accommodating time for submission of one or two documents or due to observations on applications.

[145] Mandya, Ballari, Jayanagar, Rajajinagar, Dharwad, Belagavi, Bagalkot, Koppal and Mysuru.

Credit worthiness of the borrower

3.12.6.1. As per the Project Appraisal Manual, the Corporation was to collect various documentary evidences in support of moveable properties like Cash at Bank, Jewellery, Investments, Vehicles, *etc*. The Corporation did not collect the supporting documents in all the 349 cases reviewed.

The Government replied that the details were obtained only for confirming eligibility. The documentary evidence with regard to cash and jewellery owned by the promoters were not collected, as they could be liquidated easily by the promoters ensuring proof in respect of Cash at Bank.

However, the documents in respect of Cash at Bank was to be compulsorily maintained as per Circular No. 735 of May 1999. This may enable the Corporation to ascertain and ensure whether the disbursement was made to eligible customers only.

Credit rating of the borrower

3.12.6.2. The credit risk rating models suggest scores to various risks, which are broadly classified as Financial Risks, Business Risks, Management Risks and Legal Risks. The weightages given to each risk varies according to the type of business and the amount of loan.

The lending policy provides different models[146] of credit risk rating for various types of loans as detailed below:

Table No. 3.12.4: Different models of credit risk

Sl. No.	Model	Exposure limit
1	A	₹ 25 lakh (new and existing units).
2	B	Between ₹ 25 lakh and ₹ 75 lakh (existing units only).
3	C	More than ₹ 25 lakh (new units).
4	D	More than ₹ 75 lakh (existing units).
5	E	Build and sell-new unit (Residential layout and apartments) Construction and Real Estate (CRE) Score Chart.
6	F	Build and sell-existing unit (Residential layout and apartments) CRE Score Chart.
7	G	Other CRE Projects-New Units (Commercial Complex, godowns and convention centers).
8	H	Other CRE Projects-existing Units (Commercial Complex, godowns and convention centers).

The Corporation prescribed different Credit Rating grades for in-house Credit Rating as detailed below:

[146] The criteria for sanction of various types of loans.

Table No. 3.12.5: Different Credit Rating grades

Sl. No.	Score Range	Nomenclature
1	90 *per cent* and above	Highest Safety
2	80 to 90 *per cent*	High Safety
3	70 to 80 *per cent*	Adequate Safety
4	60 to 70 *per cent*	Moderate Safety
5	50 to 60 *per cent*	Average Safety
6	Below 50 *per cent*	High Risk-Not support worthy

As against the requirement of an in-house credit risk rating, as per the prescribed model for sanctioning all loans, Audit observed that in 172 of the 254 cases of loans below ₹ 150 lakh, which were test-checked, this stipulation was not followed. The reasons for not following the stipulations were not on record. However, in all 95 cases of loans above ₹ 150 lakh, the credit risk rating was carried out. Sanctioning of loan without Credit Rating was a violation of the stipulations and also put the Corporation's money on risk by lending money to a borrower without knowing his/her credit worthiness.

Audit further observed that wherever Credit Rating reports were prepared, no supporting documents like previous experience in the chosen field of business, working capital arrangements, market survey reports, *etc*. were available. In the absence of the supporting documents, the correctness of the scores considered for Credit Rating could not be verified.

Further, in 15 cases[147], where the loans slipped into Non-Performing Assets (NPA) as on 31 March 2017, the deficiencies in Credit Rating, if any, could not be analysed for want of supporting documents. Non-collection and verification of documentary evidence pointed to a lack of internal control mechanism and consequent inability to analyse the reasons for these loans slipping into NPA.

The Government replied that in future, Credit Rating for all loans would be insisted upon and that a note was already issued to the Branch Offices in this regard.

It is recommended that the Corporation should ensure strict adherence to risk modelling and documentation of all papers to support the risk ratings done.

[147] Koramandal Refractories Pvt Ltd (₹ 6.72 crore), Vatsala Metal Sections (₹ 3.78 crore), Deepsagar Engg. Industries (₹ 97.87 lakh), Maxworth Realty (₹ 3.45 crore), Amrutesh Industries (₹ 1.31 lakh), Sneha Apparrels (₹ 26.28 lakh), Kanti Resorts (₹ 13.32 crore), Pramod Developers (₹ 86.41 lakh), Dr. N Sobha (₹ 64.51 lakh), S G Mugabast (₹ 1.11 crore), Sri Sai Bricks (₹ 5.98 lakh), Tayamma Metals (₹ 82.65 lakh), Nadig Promoters and Developers (₹1.37 crore), Viswa Papers (₹ 55.60 lakh) and Siddheswara Saw Mill (₹ 8.94 lakh).

Disbursement of loans

3.12.7. Audit selected 349 cases of disbursement on random basis. Out of the 349 cases, 59 cases were closed during the audit period based on repayment of loans. Audit observed that 37 cases became NPA.

Periodical inspection of Securities (Primary/Collateral)

3.12.7.1 The Corporation secures its rights by ensuring that the properties/assets offered as security for the loans are mortgaged/hypothecated in its favour. However, there was no mechanism in place to ensure that the Corporation's interest was safeguarded through periodical inspection of such mortgaged/hypothecated assets after sanction/disbursement of loan. Guidelines on Recovery Functions of the Corporation stipulated time schedule for the visit to units as detailed in table below:

Table No. 3.12.6: Time schedule for frequency of visit to financed units

Sl. No.	Particulars	Frequency of visit to the unit
1	Assets in Standard category	Once in six months
2	Assets in Sub-standard Category	Once in three months
3	Doubtful category	Once in two months
4	Units under Section 29	Once in a month

Out of the 349 cases reviewed in selected branches, no periodical inspection of such mortgaged/hypothecated assets was carried out after disbursement of loan in any of the cases.

Table No. 3.12.7: Details of cases where primary security was not available

Sl. No.	Branch	Name of the Borrower	Amount Due ₹ in lakh	Remarks
1	Jayanagar	BKN Food Products	98.73	The borrower relocated the financed asset without the knowledge of the Corporation.
2	Rajajinagar	Shashisekhar Naik	2.61	The financed asset was not traceable.
3	Rajajinagar	Sneha Apparels	26.28	The borrower sold financed asset, which was given as Primary security.
	Total Amount due		**127.62**	

This happened owing to not conducting periodical inspection and not ensuring security of assets mortgaged/hypothecated by ensuring that these assets were hypothecated to the Corporation.

In its reply, the Government stated that compliance to guidelines with regard to periodical inspection and recommendations made by Audit would be ensured.

It is recommended that the Corporation may introduce a system of periodical inspection and scrupulously ensure documentation, bringing out details of inspection.

Non-adherence to policy guidelines

3.12.7.2 The guidelines framed by the Corporation provided various procedures to be followed while appraising and sanctioning of loans. The Disbursement Manual provided guidelines for disbursement of loans. Audit observed that the Corporation did not comply with these guidelines framed in the test-checked cases as explained in the table below:

Table No. 3.12.8: Non-compliance to own guidelines

Sl. No.	Particulars	Audit observation	Government's reply and its rebuttal
1.	***Annual Reports of the borrowers subsequent to disbursement of loans*** As per Terms and Conditions of the Sanctions, the borrower was to regularly furnish the quarterly performance and annual statement of Accounts (including the Auditor's Report, Director's Report, Copy of the Meeting Notice and Agenda in the case of a Company) of the applicant unit and its associate concerns duly audited by Chartered Accountants during the currency of the loan.	Annual Reports were not furnished in all the 349 cases reviewed.	The Annual Reports were being collected by the Recovery Officers. However, the reply was incorrect as the Annual Reports were not available in any of the 349 cases.
2	***Non-review of Project Implementation*** As per Clause 1.1(t) of Chapter 1 of the Disbursement Manual, the Project Implementation was to be reviewed periodically till it was completed by the Project Implementation Review Committee headed by the Managing Director/the General Managers/the Zonal Managers.	The Project Implementation Review was not done in any of the 349 cases test-checked.	The Project Implementation was being monitored. However, the reply was incorrect as in none of the 349 cases, the Committee periodically reviewed the projects.

Sl. No.	Particulars	Audit observation	Government's reply and its rebuttal
3	***Non-obtaining of insurance at disbursement of 60 per cent of loan*** As per Clause 1.1 (v) of the Disbursement Manual, the Corporation was to insist the borrower to insure the assets created, with any of the nationalised General Insurance Companies and collect a copy of the insurance policy before the release of the last 40 *per cent* of the sanction amount.	Copy of certificate for having insured was not available in 190 cases out of 349 cases test-checked.	In most of the cases, insurance was taken on release of 60 *per cent* of the loan amount and in other cases, it was covered beyond release of 60 *per cent* of the loan. The reply was not justified as copies of insurance certificates were not available in 190 of the 349 cases (54.4 *per cent*).
4	***Non-collection of Advance Cheque*** As per Clause 1.1 y (ii) of Chapter 1 of the Disbursement Manual, in case of Term Loan and Corporate Loan, advance cheques for a period of one year (upto the end of next financial year) covering both principal as well as approximate interest was to be collected before disbursal of last 20 *per cent* of the loan sanctioned.	Advance Cheques were not collected in all 305 cases[148] of Term and Corporate loans test-checked.	The system was discontinued in 2009 with the discontinuation of repayment on Equated Monthly Instalment basis and that in view of the RTGS/NEFT facilities, there was no need for advance cheques. The reply was not justified as advance cheques served as additional security whereas RTGS/NEFT did not. The Corporation may review the practice to safeguard its own interests with respect to security of the money lent.

From the above it could be seen that on account of the significant non-compliance of the guidelines on credit worthiness, non-verification of annual reports and non-review of project implementation, the Corporation bore the risk of inability to ascertain the financial standing of the borrower, personal property for the future security and the utilisation of the loan disbursed for the purpose, for which, it was sanctioned. Further, not obtaining insurance and advance cheques had potential risk of loss of disbursed amount.

As a result, the disbursed amount of ₹ 399.62 crore in the selected 290[149] cases was at a risk, which could easily be minimised through due compliance of applicable guidelines.

It is recommended that the Corporation may re-introduce the system of obtaining cheques as security to safeguard its own interest.

[148] The remaining 44 test-checked cases were under Privileged Enterprises category of loans, where advance Cheques were not required to be collected.
[149] Excluding 59 cases, where loans were repaid during the audit period.

Non-obtaining of Chartered Accountant certificate for promoters' contribution under First Investment Clause

3.12.7.3. According to Clause 1.1(d) of Loan Disbursement Manual, to ensure that the borrowers brought in their contribution as per the First Investment Clause[150], the Branch was to insist on a certificate from a Chartered Accountant (CA) in respect of cases involving Term loans and Working Capital loans above ₹ 10 lakh. Audit observed that in nine[151] branches selected for review, CA certificates in support of first investment was not obtained in 65 of the 293 cases test-checked. This exposed the Corporations to the risk of disbursal of loans without ensuring the borrower's share of investment.

Out of 65 cases, where the Corporation did not obtain the certificate for first investment, 14 cases[152] slipped into NPA involving an outstanding amount of ₹ 19.50 crore. Disbursement of loan without obtaining certificates for first investment was also one of the contributory factors to the loans slipping into NPA.

The Government replied that it was a normal practice to ensure compliance of First Investment Clause through CA certificate except in case of transport, PE loan and Corporate Loan schemes and loans below ₹ 10 lakh. Further, it was audited quarterly as a routine. The reply was not correct as the cases mentioned by Audit did not include cases of transport, PE loans, Corporate loans and loans below ₹ 10 lakh. Also, the reply was silent on the audit observation that in 65 such cases, certificate was not obtained and that 14 of such cases slipped into NPA.

Non-collection of proof for payment made to contractors for construction of buildings while releasing each instalment of loan

3.12.7.4. Clause 1.2(c) of Disbursement Manual stipulated that in case of release of funds towards building/construction, the branch was to ascertain from the borrower whether the building work was entrusted to a contractor. In such cases, the terms of contract were to be obtained, studied and receipt from the contractor regarding payment made by the borrower be received. This was to ensure that the Corporation was reimbursing the amount paid by the borrower. Such receipts were to be cross-verified with the contractor to avoid any dispute at a later stage.

Further, as per clause 1.2 (d), in the case of buildings constructed by borrowers themselves, purchase bills pertaining to major items were to be

---

150 Initial investment by the promoter.

151 Mandya, Ballari, Koppal, Bagalkote, Belagavi, Dharwad, Jayanagar, Rajajinagar and Mysuru.

152 **Belgaum Branch**: Sunanda.G (₹ 110.86 lakh), **Bagalkote Branch**: Noble Stones (₹ 107.69 lakh), Balaji Udyog (₹ 20.02 lakh), Guru Krupa Granites (₹ 48.75 lakh), **Koppal Branch**: Brahmi Granites (₹ 118.97 lakh), Kalyan Basveswara Seeds (₹ 190.60 lakh), Sri Sai Stone & Iron Ore Crushing (₹ 14.62 lakh), Tayamma Metals (₹ 82.65 lakh), **Ballari Branch**: Datta Narashima Swamy (₹ 25.99 lakh), Mastek Steels Pvt.Ltd. (₹ 150.24 lakh), **Mandya Branch**: M. Prasanna, (₹ 8.89 lakh), **Dharwad Branch**: Koramandal Refractories (₹ 672.25 lakh), Rama Rao (₹ 199.99 lakh) and **Mysuru Branch**: Someshwara Magnasite (₹ 198.59 lakh).

verified to ensure that payments were made for acquisition of such items. The above clauses were to ensure that loan was being utilised for the purpose for which it was sanctioned and non-compliance to the above clauses.

It was, however, seen that the above clauses were not complied with in all the 39 Construction and Real Estate cases reviewed by Audit involving ₹ 156.63 crore. Eight[153] cases out of the above 39 became NPA of ₹ 7.34 crore out of total NPA of ₹ 217.80 crore for 2016-17. The Technical Officer was to make a pre-disbursement inspection and submit a report to the branch head concerned. The report was to indicate the progress of work, material available at site and plant and machinery to be procured. However, no documents in support of these were found enclosed with pre-disbursement inspection report. Hence, the Corporation could not establish the utilisation of loan for the purpose for which it was sanctioned and the reasons for which these eight loans with an outstanding balance of ₹ 7.34 crore became NPA. This was an indication of failure of internal control mechanism.

The Government replied that periodical inspection was carried out and that it was a normal practice for the promoters not to enter into any agreement with the building contractors. Further, it was not practicable to collect proof of payments. The reply, however, confirmed that the Corporation did not adhere to clause 1.2 (c) of the Manual. Further, the reply was silent on the 39 cases of non-compliance observed by Audit.

Disbursement of loans without pre-audit by Internal Audit Department

3.12.7.5. The Corporation's Internal Audit Wing was headed by Deputy General Manager at the Corporate Office and Internal Audit wings of Circle concerned, headed by Assistant General Managers audit the branches. Each loan case, irrespective of the amount sanctioned, was referred to the Internal Audit wing for concurrent audit after the loan was sanctioned and communication of sanction was issued. Further, the first disbursement was made only after the concurrent audit and satisfactory compliance of the observations of the Internal Audit. In Ballari Branch, out of 34 cases reviewed, Audit observed that in eight[154] cases, involving an outstanding balance of ₹ 17.02 crore, Internal Audit was conducted only after disbursement. However, in other cases, Internal Audit was conducted after sanction but before disbursement. As the lapse observed in Ballari Branch covered about 24 *per cent* of the test-checked cases, the system prevailing in that Branch may be probed.

It was replied that there was communication gap in Ballari and that departmental enquiry was initiated in this regard.

[153] Pramod Developers (₹ 86.41 lakh), Guruprasad Builders & Developers (₹ 36.41 lakh), S.A Naik (₹ 60.13 lakh), S G Mugabast (₹ 1.11 crore), Balaji Complex (₹ 42.10 lakh), Maxworth Realty (₹ 3.45 crore), Bhuvana Constructions (₹ 5.13 lakh) and Premier Properties (₹ 48.75 lakh).

[154] Fortune Hotels Bar and Restaurant (₹ 1.48 crore), GSR Road Lines (₹ 0.89 crore), Limra Road Lines (₹ 1.12 crore), Aishwarya Paradise (₹ 4.54 crore), Aishwarya Bar & Restaurant (₹ 1.04 crore), C Hariprasad Reddy (₹ 0.90 crore), R R Hotels (₹ 0.73 crore), Ramprakash Reddy (₹ 6.32 crore).

It is recommended that the system of obtaining Chartered Accountants Certificate before disbursement to ensure promoter's contribution and collecting proof of payment made to contractors may be enforced. Besides enquiry at Ballari Branch, there was a requirement to strengthen the Internal Control system.

Realisation of Security for Non-Performing Assets

3.12.8. Proper documentation of the Primary and Collateral Security, important elements for ensuring recovery of the loan amount, was an essential pre-requisite in cases of default. The documents submitted towards Primary and Collateral Security were verified by the Legal Cell at the Branch Office for its authenticity and genuineness. Besides, the loan agreements, undertakings from personal guarantors, hypothecation and mortgage deeds in respect of the assets given as Primary and Collateral Security were being executed. However, despite ensuring a good system of obtaining security for loan, the Corporation was not able to recover through these securities due to non-compliance of Section 29 and Section 31(1) (aa) of State Financial Corporations Act, 1951, (Act) as mentioned below:

3.12.8.1. Section 29 of the Act, stated that where any industrial concern, which was under a liability to the Financial Corporation, made any default in repayment of any loan or advance or any instalment thereof, the Financial Corporation may exercise the right to take over the management or possession or both of the industrial concern, as well as the right to transfer by way of lease or sale and realise the property pledged, mortgaged, hypothecated or assigned to the Financial Corporation.

The Corporation framed the Guidelines on Recovery Functions based on the provisions of the Act. As per the guidelines, in case of default:

- First reminder was to be issued within 30 days of default in case of fully disbursed loan;
- Second reminder was issued within 15 days of default of two instalments of either principal or interest;
- A Default Review Committee headed by Branch Manager at branch level, was to review the default case within 45 days of default in payment;
- Show Cause Notice to the borrower, with a copy to guarantors/collateral security owners, informing them about the proposed take-over of the unit, was to be issued within 15 days from the decision taken in Default Review Committee; and
- The unit, financed by the Corporation, was to be seized within 90 days from the issue of the Show Cause Notice if the borrower failed to come up with an acceptable proposal. The order to seize the property was to be issued by the Competent Authority and the same was to be executed within 15 days from the date of signing of the order.

The following non-compliances of the guidelines, framed under Section 29 of the Act, were observed in 70 default cases:

Table No. 3.12.9: Non-compliance to guidelines framed under Section 29 of State Financial Corporations Act, 1951

Sl. No.	Particulars	Audit Observation
1	***Non-issue of Show Cause Notice under the provisions of the Act***	In one case, involving ₹ 15.13 lakh (overdue ₹ 14.38 lakh and interest ₹ 0.75 lakh) as of June 2017, in respect of Sri. Shrikanth Anant Naik, Belagavi Branch, show cause notice was not issued. (Principal ₹ 45 lakh not demanded).
2	***Non-seizure of properties under Section 29 of the Act*** The unit should be seized within 90 days from the date of issue of Show Cause Notice.	In 33 cases, the Corporation did not seize the properties even after issue of the show cause notice for recovery of overdue interest of ₹ 17.47 crore as of June 2017. It allowed the business to continue despite the absence of an acceptable proposal for revival of the units.
3	***Non-issue of advertisements for sale of property after seizure*** The Corporation should release first sale advertisement within one month after the completion of 30 days' time given for the borrower to submit acceptable proposals for taking back the unit/asset.	In 18 cases, involving ₹ 22.70 crore (Principal due ₹ 11.83 crore and interest due ₹ 10.87 crore) as of March 2017, advertisement for sale of property after seizure was not issued.

Further, as per Section 31(1)(a) and (aa) of the Act, action against personal guarantor was to be taken within three months from the date of identification of personal properties. Audit observed that in the selected 9 branches, action under Section 31(1)(a) and (aa) in the above default cases, which involved an outstanding amount of ₹ 40.32 crore, was not initiated.

It was replied that in order to regularise the account, the promoters were given more time and opportunity, and hence the delay. However, the Corporation did not effectively use the recovery mechanism.

It is recommended that the Corporation may use Section 29 and 31(1) (aa) of the State Financial Corporations Act, 1951, and ensure swift action to liquidate the securities, as these are the strongest weapons of recovery available to the Corporation to avoid writing off of dues.

Conclusion

The Corporation did not adequately monitor the implementation of its Lending Policy to ensure due compliance.

The procedural lapses showed lack of internal control in the organisation, running the risk of loan defaults. The Corporation did not maintain proper documentation of cases of sanction and disbursement of loan.

The Corporation did not liquidate the securities obtained as a guarantee against default. Non-initiation of action under Section 29 and Section 31 of State Financial Corporations Act, 1951, helped the borrowers escape recovery of loans.

Bengaluru
The 15 FEB 2018

(BIJIT KUMAR MUKHERJEE)
Accountant General
Economic and Revenue Sector Audit
Karnataka

Countersigned

New Delhi
The 15th Feb, 2018

(RAJIV MEHRISHI)
Comptroller and Auditor General of India

Appendices

Appendix-1

Statement showing investments made by the GoK in PSUs whose accounts are in arrears

(*Referred to in Paragraph 1.12*)

(Figures in columns 4 & 6 to 8 are ₹ in crore)

Sl. No.	Name of the Public Sector Undertaking	Year up to which accounts finalised	Paid up capital as per the latest finalised accounts #	Period of accounts pending finalisation	Investment made by the State Government during the year of which accounts are in arrears		
					Equity and Share Deposit	Loans	Grants/Subsidy
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A. WORKING GOVERNMENT COMPANIES							
AGRICULTURE AND ALLIED SECTOR							
1	Karnataka State Agro Corn Products Limited (KSACPL)	2015-16	2.73	2016-17	-	-	-
2	Karnataka State Agricultural Produce Processing and Export Corporation Limited (KAPPEC)	2015-16	0.50	2016-17	-	-	13.89
3	Karnataka Togari Abhivridhi Mandali Limited (KTAML)	2015-16	5.00	2016-17	-	-	-
4	Karnataka Sheep And Wool Development Corporation Limited (KSAWDCL)	2014-15	6.05	2015-16 2016-17	-	-	33.18
5	Karnataka Compost Development Corporation Limited (KCDCL)	2015-16	0.50	2016-17	-	-	-
6	The Karnataka State Forest Industries Corporation Limited (KSFIC)	2015-16	2.67	2016-17	-	-	-
7	Karnataka State Seeds Corporation Limited (KSSCL)	2015-16	3.76	2016-17	-	-	-
8	Food Karnataka Limited (FKL)	2015-16	0.10	2016-17	-	-	-
9	Karnataka State Mango Development and Marketing Corporation Limited (KSMDMCL)	2014-15	0.01	2015-16 2016-17	-	-	7.54
FINANCING SECTOR							
10	The Karnataka Handloom Development Corporation Limited (KHDCL)	2015-16	51.88	2016-17	-	-	8.22
11	D. Devaraj Urs Backward Classes Development Corporation Limited (DUBCDCL)	2015-16	199.21	2016-17	50.00	-	182.17
12	Karnataka State Women's Development Corporation (KSWDC)	2015-16	13.56	2016-17	0.65	-	125.81
13	Dr.B.R. Ambedkar Development Corporation Limited (BRADCL)	2015-16	199.39	2016-17	70.90	-	547.15

Appendix-1 contd.

Sl. No.	Name of the Public Sector Undertaking	Year up to which accounts finalised	Paid up capital as per the latest finalised accounts #	Period of accounts pending finalisation	Investment made by the State Government during the year of which accounts are in arrears		
					Equity and Share Deposit	Loans	Grants/Subsidy
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
14	Karnataka Maharshi Valmiki Scheduled Tribes Development Corporation Limited (KMVSTDC)	2014-15	20.00	2015-16 2016-17	-	-	-
15	The Karnataka Minorities Development Corporation Limited (KMDC)	2013-14	99.78	2014-15 2015-16 2016-17	-	-	-
16	Sree Kanteerava Studios Limited (KSL)	2015-16	0.88	2016-17	-	-	-
17	Karnataka Thanda Development Corporation Limited (KTDCL)	2015-16	0.01	2016-17	-	-	71.25
18	Karnataka Vishwakarma Community Development Corporation Limited (KVCDCL)	2015-16	0.01	2016-17	-	-	20.00
INFRASTRUCTURE SECTOR							
19	Karnataka State Construction Corporation Limited (KSCCL)	2013-14	2.05	2014-15 2015-16 2016-17	-	-	-
20	Karnataka Rural Infrastructure Development Limited (KRIDL)	2015-16	12.25	2016-17	-	-	-
21	Rajiv Gandhi Rural Housing Corporation Limited (RGRHCL)	2015-16	3.00	2016-17	-	-	3,364.46
22	Krishna Bhagya Jala Nigam Limited (KBJNL)	2015-16	7,095.01	2016-17	-	-	2,972.06
23	Karnataka Neeravari Nigam Limited (KNNL)	2015-16	19,910.13	2016-17	3,718.40	-	313.31
24	Cauvery Neeravari Nigama Limited (CNNL)	2015-16	1,243.88	2016-17	1,624.54	-	61.96
25	Vishveswaraya Jala Nigam Limited (VJNL)	First Accounts not finalised		2016-17	327.00	-	11.15
26	Hubli Dharwad BRTS Company Limited (HDBRTS)	2015-16	20.00	2016-17	-	-	124.90
27	Bangalore Suburban Rail Company Limited (BSRCL)	First Accounts not finalised		2014-15 2015-16 2016-17	-	-	-
28	Bangalore Bio-innovation Centre (BBC)	First Accounts not finalised		2016-17	-	-	-

Appendix-1 contd.

Sl. No.	Name of the Public Sector Undertaking	Year up to which accounts finalised	Paid up capital as per the latest finalised accounts #	Period of accounts pending finalisation	Investment made by the State Government during the year of which accounts are in arrears		
					Equity and Share Deposit	Loans	Grants/Subsidy
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
29	Tumakuru Machine Tool Park (TMTP)	First Accounts not finalised		2016-17	-	-	-
30	Hubballi Dharwad Smart City Limited (HDSCL)	First Accounts not finalised		2016-17	-	-	-
31	Davanagere Smart City Limited (DSCL)	First Accounts not finalised		2016-17	-	-	-
32	Belagavi Smart City Limited (BSCL)	First Accounts not finalised		2016-17	-	-	-
33	Shivamogga Smart City Limited (SSCL)	First Accounts not finalised		2016-17	-	-	-
34	Tumakuru Smart City Limited (TSCL)	First Accounts not finalised		2016-17	-	-	-
MANUFACTURING SECTOR							
35	Dr. Babu Jagjivan Ram Leather Industries Development Corporation Limited (LIDKAR)	2015-16	6.85	2016-17	-	-	64.00
36	Karnataka State Small Industries Development Corporation Limited (KSSIDC)	2015-16	26.02	2016-17	-	-	19.28
37	The Mysore Paper Mills Limited (MPM)	2013-14	118.89	2014-15 2015-16 2016-17	-	-	-
38	Karnataka Silk Industries Corporation Limited (KSIC)	2015-16	58.00	2016-17	-	-	-
39	Mysore Minerals Limited (MML)	2015-16	6.00	2016-17	-	-	-
40	The Hutti Gold Mines Company Limited (HGML)	2015-16	2.96	2016-17	-	-	-
41	The Mysore Sugar Company Limited (MYSUGAR)	2012-13	8.73	2013-14 2014-15 2015-16 2016-17	-	-	-
POWER SECTOR							
42	Karnataka Power Corporation Limited (KPCL)	2015-16	4346.45	2016-17	-	-	-
43	Karnataka Renewable Energy Development Limited (KREDL)	2015-16	0.50	2016-17	-	-	-

Appendix-1 contd.

Sl. No.	Name of the Public Sector Undertaking	Year up to which accounts finalised	Paid up capital as per the latest finalised accounts #	Period of accounts pending finalisation	Investment made by the State Government during the year of which accounts are in arrears		
					Equity and Share Deposit	Loans	Grants/Subsidy
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
44	Karnataka Power Transmission Corporation Limited (KPTCL)	2015-16	2,075.32	2016-17	-		-
45	Bangalore Electricity Supply Company Limited (BESCOM)	2015-16	546.92	2016-17	218.68	84.01	-
46	Hubli Electricity Supply Company Limited (HESCOM)	2015-16	934.49	2016-17	229.17	-	3,147.17
47	Gulbarga Electricity Supply Company Limited (GESCOM)	2015-16	305.14	2016-17	127.30	-	1,553.79
48	Power Company of Karnataka Limited (PCKL)	2015-16	20.05	2016-17			
49	Raichur Power Corporation Limited (RPCL)	2015-16	2,155.34	2016-17			
SERVICE SECTOR							
50	Karnataka Food and Civil Supplies Corporation Limited (KFCSCL)	2015-16	3.25	2016-17	-	-	-
51	The Karnataka State Tourism Development Corporation Limited (KSTDC)	2015-16	6.41	2016-17	-	-	22.10
52	Jungle Lodges and Resorts Limited (JLR)	2015-16	0.92	2016-17	-	-	0.04
MISCELLANEOUS SECTOR							
53	Karnataka Vocational Training and Skill Development Corporation Limited (KVTSDCL)	2013-14	0.01	2014-15 2015-16 2016-17	-	-	15.00
	Total A (Working Government Companies)	**-**	**39,514.61**	**-**	**6,366.64**	**84.01**	**12,678.43**
B. WORKING STATUTORY CORPORATIONS							
AGRICULTURE AND ALLIED SECTOR							
1	Karnataka State Warehousing Corporation (KSWC)	2015-16	7.80	2016-17	-	43.70	-
FINANCING SECTOR							
2	Karnataka State Financial Corporation (KSFC)	2015-16	710.01	2016-17	75.00	-	-
SERVICE SECTOR							
3	Karnataka State Road Transport Corporation (KSRTC)	2015-16	290.89	2016-17	-	-	123.96

Appendix-1 contd.

Sl. No.	Name of the Public Sector Undertaking	Year up to which accounts finalised	Paid up capital as per the latest finalised accounts #	Period of accounts pending finalisation	Investment made by the State Government during the year of which accounts are in arrears		
					Equity and Share Deposit	Loans	Grants/Subsidy
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
4	Bangalore Metropolitan Transport Corporation (BMTC)	2015-16	104.59	2016-17	-	-	291.92
5	North Western Karnataka Road Transport Corporation (NWKRTC)	2015-16	142.31	2016-17	-	-	229.16
6	North Eastern Karnataka Road Transport Corporation (NEKRTC)	2015-16	99.15	2016-17	-	-	181.79
	Total B (Working Statutory Corporations)	**-**	**1,354.75**	**-**	**75.00**	**43.70**	**826.83**
	Grand Total (A + B)	**-**	**40,869.36**	**-**	**6,441.64**	**127.71**	**13,505.26**

Paid-up Capital does not include Share Deposits/Share Application Money pending allotment.

Appendix-2

Summarised financial position and working results of Government Companies and Statutory Corporations as per their latest finalised financial statements/accounts.

(*Referred to in Paragraph 1.16*)

(Figures in column 5 to 12 are ₹ in crore)

Sl. No.	Sector / Name of the Company	Period of accounts	Year in which accounts finalised	Paid-up capital^^	Loans outstanding at the end of year	Accumulated profit (+)/ loss (-)	Turnover	Net profit (+)/loss (-)	Net impact of Audit comments#	Capital employed @	Return on capital employed $	Percentage of return on capital employed	Return on Equity (Ratio) ∞	Manpower (No. of employees) (as on 31.3.2017)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
A. WORKING GOVERNMENT COMPANIES														
AGRICULTURE AND ALLIED SECTOR														
1	Karnataka State Agro Corn Products Limited (KSACPL)	2015-16	2016-17	2.73	24.32	-28.37	-	0.43	-0.32	-1.32	0.44	-	-0.02	31
2	Karnataka State Agricultural Produce Processing and Export Corporation Limited (KAPPEC)	2015-16	2016-17	0.50	-	16.30	1.37	0.79	-	16.80	1.18	7.02	0.05	16
3	Karnataka Togari Abhivridhi Mandali Limited (KTAML)	2015-16	2016-17	5.00	-	-17.21	-	0.06	-	-12.21	0.08	-	-0.00	10
4	The Karnataka Fisheries Development Corporation Limited (KFDC)	2016-17	2017-18	17.84	0.58	2.29	198.10	4.38	-	20.71	6.00	28.97	0.22	102
5	Karnataka Sheep and Wool Development Corporation Limited (KSAWDCL)	2014-15	2017-18	6.05	-	-5.00	18.23	-0.25	-	1.05	-0.25	-	-0.24	70
6	Karnataka Compost Development Corporation Limited (Subsidiary of Company at C-1) (KCDCL)	2015-16	2016-17	0.50	2.05	-1.77	3.51	-1.75	-0.51	0.78	-1.69	-	1.38	24

Appendix-2 contd.

Sl. No.	Sector / Name of the Company	Period of accounts	Year in which accounts finalised	Paid-up capital^^	Loans outstan-ding at the end of year	Accumu-lated profit (+)/ loss (-)	Turnover	Net profit (+)/loss (-)	Net impact of Audit comments#	Capital employed @	Return on capital employed $	Percentage of return on capital employed	Return on Equity (Ratio) ∞	Manpower (No. of employees) (as on 31.3.2017)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
7	Karnataka Cashew Development Corporation Limited (KCDC)	2016-17	2017-18	7.59	-	-1.66	6.02	-3.26	-14.21	5.93	-3.13	-	-0.55	72
8	Karnataka Forest Development Corporation Limited (KFDCL)	2016-17	2017-18	9.31	-	217.23	62.66	-0.05	-0.17	226.54	2.06	0.91	-0.00	387
9	The Karnataka State Forest Industries Corporation Limited (KSFIC)	2015-16	2016-17	2.67	-	21.63	42.05	5.43	-0.58	24.30	6.75	27.78	0.22	68
10	Karnataka State Seeds Corporation Limited (KSSCL)	2015-16	2016-17	3.76	0.04	29.49	151.14	2.86	-	33.29	4.10	12.33	0.09	217
11	Food Karnataka Limited (FKL)	2015-16	2016-17	0.10	-	1.74	-	0.01	-	1.84	0.02	1.09	0.01	1
12	Karnataka State Mango Development and Marketing Corporation Limited (KSMDMCL)	2014-15	2016-17	0.01	-	1.72	-	0.79	-	1.73	1.18	68.21	0.46	11
	Sector-wise total			**56.06**	**26.99**	**236.39**	**483.08**	**9.44**	**-15.79**	**319.44**	**16.74**	**-**	**0.03**	**1,009**
FINANCING SECTOR														
13	The Karnataka Handloom Development Corporation Limited (KHDCL)	2015-16	2016-17	51.88	15.43	-115.32	157.63	-9.46	-	-48.01	-8.40	17.50	0.15	445
14	Karnataka State Handicrafts Development Corporation Limited (KSHDCL)	2016-17	2017-18	9.02	0.90	37.14	51.59	4.90	-	47.06	7.81	16.60	0.11	109

Appendix-2 contd.

Sl. No.	Sector / Name of the Company	Period of accounts	Year in which accounts finalised	Paid-up capital^^	Loans outstan-ding at the end of year	Accumu-lated profit (+)/ loss (-)	Turnover	Net profit (+)/loss (-)	Net impact of Audit comments#	Capital employed @	Return on capital employed $	Percentage of return on capital employed	Return on Equity (Ratio) ∞	Manpower (No. of employees) (as on 31.3.2017)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
15	D. Devaraj Urs Backward Classes Development Corporation Limited (DUBCDCL)	2015-16	2016-17	199.21	115.39	127.10	7.58	34.99	-	441.70	35.93	8.13	0.11	43
16	Karnataka State Women's Development Corporation (KSWDC)	2015-16	2016-17	13.56	-	28.67	6.50	10.59	-	42.23	10.59	25.08	0.25	43
17	Dr.B.R. Ambedkar Development Corporation Limited (BRADCL)	2015-16	2016-17	199.39	168.01	116.92	5.28	54.36	-	484.32	62.02	12.81	0.17	197
18	Karnataka Maharshi Valmiki Scheduled Tribes Development Corporation Limited (KMVSTDC)	2014-15	2016-17	20.00	89.28	58.61	0.75	20.22	-0.07	167.89	22.56	13.44	0.26	21
19	The Karnataka Minorities Development Corporation Limited (KMDC)	2013-14	2015-16	99.78	24.75	-23.55	0.35	8.80	-241.39	100.98	9.97	9.87	0.12	42
20	Karnataka State Industrial Infrastructure and Development Corporation Limited (KSIIDC)	2016-17	2017-18	667.15	10.05	-204.81	17.89	30.29	-12.32	472.39	38.95	8.25	0.07	69
21	Karnataka Urban Infrastructure Development and Finance Corporation Limited (KUIDFC)	2016-17	2017-18	8.06	-	13.98	7.11	-0.19	-	22.04	-0.38	-	-0.01	339

Appendix-2 contd.

Sl. No.	Sector / Name of the Company	Period of accounts	Year in which accounts finalised	Paid-up capital^^	Loans outstan-ding at the end of year	Accumu-lated profit (+)/ loss (-)	Turnover	Net profit (+)/loss (-)	Net impact of Audit comments#	Capital employed @	Return on capital employed $	Percentage of return on capital employed	Return on Equity (Ratio) ∞	Manpower (No. of employees) (as on 31.3.2017)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
22	Sree Kanteerava Studios Limited (KSL)	2015-16	2016-17	0.88	0.21	1.63	1.88	-0.09	-0.05	2.72	-0.09	-	-0.04	7
23	Karnataka Asset Management Company Private Limited (KAMCPL)	2016-17	2017-18	0.50	-	2.82	1.88	0.78	-	3.32	1.16	34.94	0.23	5
24	Karnataka Trustee Company Private Limited (KTCPL)	2016-17	2017-18	0.01	-	0.37	0.09	0.07	-	0.38	0.10	26.32	0.18	1
25	Karnataka Thanda Development Corporation Limited (KTDCL)	2015-16	2016-17	0.01	-	5.58	-	2.74	-	5.59	2.74	49.02	0.49	-
26	Karnataka Vishwakarma Community Development Corporation Limited (KVCDCL)	2015-16	2016-17	0.01	5.00	0.18	0.13	0.15	-	5.19	0.16	3.08	0.79	2
	Sector-wise total			**1,269.46**	**429.02**	**49.32**	**258.66**	**158.15**	**-253.83**	**1,747.80**	**183.12**	**-**	**0.12**	**1,323**
INFRASTRUCTURE SECTOR														
27	Karnataka State Construction Corporation Limited (KSCCL)	2013-14	2017-18	2.05	5.53	15.66	4.27	-3.73	-	23.24	-3.25	-	-0.21	109
28	Karnataka Rural Infrastructure Development Limited (KRIDL)	2015-16	2016-17	12.25	-	390.40	1,892.62	109.88	-7.13	402.65	171.49	42.59	0.27	844
29	Karnataka State Police Housing Corporation Limited (KSPHCL)	2016-17	2017-18	0.12	23.06	68.68	32.60	16.12	-	91.86	26.22	28.54	0.23	251

Appendix-2 contd.

Sl. No.	Sector / Name of the Company	Period of accounts	Year in which accounts finalised	Paid-up capital^^	Loans outstanding at the end of year	Accumulated profit (+)/ loss (-)	Turnover	Net profit (+)/loss (-)	Net impact of Audit comments#	Capital employed @	Return on capital employed $	Percentage of return on capital employed	Return on Equity (Ratio) ∞	Manpower (No. of employees) (as on 31.3.2017)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
30	Rajiv Gandhi Rural Housing Corporation Limited (RGRHCL)	2015-16	2016-17	3.00	1,186.02	-	##	£	-	1,189.02	1.04	0.09	-	35
31	Karnataka Road Development Corporation Limited (KRDCL)	2016-17	2017-18	310.00	147.17	-130.41	0.71	-14.58	11.79	326.76	2.21	0.68	-0.08	76
32	Krishna Bhagya Jala NigamLimited (KBJNL)	2015-16	2016-17	7,095.01	3,880.85	-564.64	8.73	-52.86	-18.00	10,411.22	217.95	2.09	-0.01	2,115
33	Karnataka Neeravari Nigam Limited (KNNL)	2015-16	2016-17	19,910.13	1,561.66	-2,490.43	1.98	-476.88	-3.64	18,981.36	-350.26	-	-0.03	3,002
34	Cauvery Neeravari Nigama Limited (CNNL)	2015-16	2016-17	1,243.88	6,886.61	-	##	$$	-	8,130.49	-	-	-	1,904
35	Vishveswaraya Jala Nigam Limited (VJNL)	First Account not finalised												386
36	Bangalore Airport Rail Link Limited (Subsidiary of Company at A-20) (BARL)	2016-17	2017-18	5.00	-	-2.97	-	0.22	-	2.03	0.22	10.84	0.11	10
37	Tadadi Port Limited (Subsidiary of Company at A-20) (TPL)	2016-17	2017-18	0.05	-	-0.03	-	$$	-	0.02	-	-	-	-
38	Hubli Dharwad BRTS Company Limited (HDBRTS)	2015-16	2016-17	20.00	-	-3.67	-	-2.08	0.57	16.33	-2.05	-	-0.13	32

Appendix-2 contd.

Sl. No.	Sector / Name of the Company	Period of accounts	Year in which accounts finalised	Paid-up capital^^	Loans outstanding at the end of year	Accumulated profit (+)/ loss (-)	Turnover	Net profit (+)/loss (-)	Net impact of Audit comments#	Capital employed @	Return on capital employed $	Percentage of return on capital employed	Return on Equity (Ratio) ∞	Manpower (No. of employees) (as on 31.3.2017)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
39	Bangalore Suburban Rail Company Limited (BSRCL)	First Accounts not finalised												-
40	Invest Karnataka Forum (IKF)	2016-17	2017-18	-	-	-	-	*	-	-	-	-	- -	-
41	Bangalore Bio-innovation Centre (BBC)	First Account not finalised												-
42	Tumakuru Machine Tool Park (TMTP)	First Account not finalised												-
43	Hubballi Dharwad Smart City Limited (HDSCL)	First Account not finalised												-
44	Davanagere Smart City Limited (DSCL)	First Account not finalised												-
45	Belagavi Smart City Limited (BSCL)	First Account not finalised												-
46	Shivamogga Smart City Limited (SSCL)	First Account not finalised												-
47	Tumakuru Smart City Limited (TSCL)	First Account not finalised												-
	Sector-wise total			**28,601.49**	**13,690.90**	**-2,717.41**	**1,940.91**	**-423.91**	**-16.41**	**39,574.98**	**63.57**	**-**	**-0.02**	**8,764**

Appendix-2 contd.

Sl. No.	Sector / Name of the Company	Period of accounts	Year in which accounts finalised	Paid-up capital^^	Loans outstanding at the end of year	Accumulated profit (+)/ loss (-)	Turnover	Net profit (+)/loss (-)	Net impact of Audit comments#	Capital employed @	Return on capital employed $	Percentage of return on capital employed	Return on Equity (Ratio) ∞	Manpower (No. of employees) (as on 31.3.2017)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
MANUFACTURING SECTOR														
48	Dr. Babu Jagjivan Ram Leather Industries Development Corporation Limited (LIDKAR)	2015-16	2017-18	6.85	13.63	-25.48	4.96	1.86	-	-5.00	3.33	-	-0.10	66
49	Karnataka Soaps and Detergents Limited (KSDL)	2016-17	2017-18	31.82	3.50	219.59	405.20	54.71	0.01	254.91	82.61	32.41	0.22	532
50	Karnataka State Coir Development Corporation Limited (KSCDCL)	2016-17	2017-18	3.01	2.41	-4.26	4.79	-2.04	-	1.16	6.62	570.69	1.63	41
51	Karnataka State Small Industries Development Corporation Limited (KSSIDC)	2015-16	2016-17	26.02	12.70	121.94	71.08	17.62	0.18	160.66	27.10	16.87	0.12	214
52	The Mysore Paper Mills Limited (MPM)	2013-14	2014-15	118.89	166.25	-425.94	383.71	-78.16	-15.31	-140.80	-63.78	45.30	0.25	1,710
53	Karnataka Vidyuth Karkhane Limited (KAVIKA)	2016-17	2017-18	5.62	7.84	23.01	162.90	5.87	-	36.47	9.36	25.66	0.21	167
54	The Mysore Electrical Industries Limited (MEI)	2016-17	2017-18	9.99	28.54	4.43	41.29	5.09	-4.58	42.96	11.57	26.93	0.35	123
55	NGEF (Hubli) Limited (Subsidiary of Company at C-10) (NGEFH)	2016-17	2017-18	3.20	12.00	-19.80	14.46	-2.17	-	-4.60	-1.58	34.35	0.13	133

Appendix-2 contd.

Sl. No.	Sector / Name of the Company	Period of accounts	Year in which accounts finalised	Paid-up capital^^	Loans outstanding at the end of year	Accumulated profit (+)/ loss (-)	Turnover	Net profit (+)/loss (-)	Net impact of Audit comments#	Capital employed @	Return on capital employed $	Percentage of return on capital employed	Return on Equity (Ratio) ∞	Manpower (No. of employees) (as on 31.3.2017)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
56	Karnataka State Electronics Development Corporation Limited (KEONICS)	2016-17	2017-18	24.87	-	81.13	204.51	4.37	-0.26	106.00	7.10	6.70	0.04	118
57	Karnataka Silk Industries Corporation Limited (KSIC)	2015-16	2016-17	58.00	-	60.13	126.15	32.18	1.09	118.13	48.01	40.64	0.27	567
58	Karnataka Silk Marketing Board Limited (KSMB)	2016-17	2017-18	31.45	22.75	-47.57	8.42	0.06	-	6.63	1.09	16.44	0.00	55
59	Karnataka State Textile Infrastructure Development Corporation Limited (KSTIDCL)	2016-17	2017-18	3.22	-	11.94	13.32	0.06	-	15.16	0.11	0.73	0.00	11
60	Mysore Minerals Limited (MML)	2015-16	2016-17	6.00	-	1,773.36	21.01	245.47	29.34	1,779.36	399.47	22.45	0.14	893
61	The Hutti Gold Mines Company Limited (HGML)	2015-16	2016-17	2.96	-	1,086.13	350.41	6.33	-1.36	1,089.09	12.02	1.10	0.01	4,112
62	The Mysore Sugar Company Limited (MYSUGAR)	2012-13	2015-16	8.73	184.63	-416.67	109.79	-50.27	-9.22	-223.31	-33.46	14.98	0.12	828
63	The Mysore Paints and Varnish Limited (MPVL)	2016-17	2017-18	1.04	-	41.54	25.40	4.04	-0.53	42.58	6.55	15.38	0.09	54
64	Karnataka State Beverages Corporation Limited (KSBCL)	2016-17	2017-18	12.00	-	222.72	107.59	26.95	-	234.72	45.42	19.35	0.11	453

Appendix-2 contd.

Sl. No.	Sector / Name of the Company	Period of accounts	Year in which accounts finalised	Paid-up capital^^	Loans outstan-ding at the end of year	Accumu-lated profit (+)/ loss (-)	Turnover	Net profit (+)/loss (-)	Net impact of Audit comments#	Capital employed @	Return on capital employed $	Percentage of return on capital employed	Return on Equity (Ratio) ∞	Manpower (No. of employees) (as on 31.3.2017)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
65	Mysore Sales International Limited (Subsidiary of Company at A-20) (MSIL)	2016-17	2017-18	20.18	-	292.07	1,389.28	36.66	-0.21	312.25	56.83	18.20	0.12	230
66	Marketing Communication and Advertising Limited (Subsidiary of Company at A-65) (MCA)[δ]	2016-17	2017-18	3.57	-	94.62	212.34	12.46	-0.51	98.19	20.74	21.12	0.13	38
	Sector-wise total			**377.42**	**454.25**	**3,092.89**	**3,656.61**	**321.09**	**-1.36**	**3,924.56**	**639.11**	-	**0.09**	**10,345**
POWER SECTOR														
67	Karnataka Power Corporation Limited (KPCL)	2015-16	2016-17	4,346.45	5,530.57	3,899.19	7,996.73	181.63	-702.44	13,776.21	1,582.14	11.48	0.02	4,930
68	Karnataka Renewable Energy Development Limited (KREDL)	2015-16	2016-17	0.50	-	130.62	40.05	23.15	5.58	131.12	35.80	27.30	0.18	62
69	Karnataka Power Transmission Corporation Limited (KPTCL)	2015-16	2016-17	2,075.32	4,825.44	577.47	2,758.93	178.11	-	7,478.23	671.46	8.98	0.07	10,384
70	Bangalore Electricity Supply Company Limited (BESCOM)	2015-16	2016-17	546.92	3,349.78	-367.76	14,148.23	108.00	-	3,528.94	710.37	20.13	0.60	13,875
71	Hubli Electricity Supply Company Limited (HESCOM)	2015-16	2016-17	934.49	2,008.02	-1,562.07	5,520.80	-372.73	-	1,380.44	-104.45	-	0.59	7,275

[δ] Formerly Marketing Consultants and Agencies Limited.

Appendix-2 contd.

Sl. No.	Sector / Name of the Company	Period of accounts	Year in which accounts finalised	Paid-up capital^^	Loans outstanding at the end of year	Accumulated profit (+)/ loss (-)	Turnover	Net profit (+)/loss (-)	Net impact of Audit comments#	Capital employed @	Return on capital employed $	Percentage of return on capital employed	Return on Equity (Ratio) ∞	Manpower (No. of employees) (as on 31.3.2017)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
72	Mangalore Electricity Supply Company Limited (MESCOM)	2016-17	2017-18	358.07	547.58	109.62	3,262.44	12.94	-	1,015.27	139.85	13.77	0.03	5,447
73	Chamundeshwari Electricity Supply Corporation Limited (CESC)	2016-17	2017-18	508.57	1,339.09	-612.82	3,479.03	21.44	-889.96	1,234.84	244.39	19.79	-0.21	5,492
74	Gulbarga Electricity Supply Company Limited (GESCOM)	2015-16	2016-17	305.14	764.81	-552.10	4,078.16	-131.25	-577.39	517.85	-40.46	-	0.53	4,934
75	KPC Bidadi Power Corporation Private Limited (Subsidiary of Company at A-67) (KPCB)	2016-17	2017-18	14.05	10.26	-11.21	-	-2.84	-	13.10	-2.84	-	-1.00	17
76	Power Company of Karnataka Limited (PCKL)	2015-16	2016-17	20.05	-	4.96	0.28	0.80	-	25.01	1.15	4.60	0.03	27
77	Raichur Power Corporation Limited (RPCL)	2015-16	2016-17	2,155.34	8,428.45	-	-	$$	-	10,583.79	-	-	-	280
	Sector-wise total			**11,264.90**	**26,804.00**	**1,615.90**	**41,284.65**	**19.25**	**-2,164.21**	**39,684.80**	**3,237.41**	**-**	**0.00**	**52,723**
SERVICE SECTOR														
78	Karnataka Food and Civil Supplies Corporation Limited (KFCSCL)	2015-16	2016-17	3.25	-	2.31	701.27	*	-479.78	5.56	-	-	-	813
79	The Karnataka State Tourism Development Corporation Limited (KSTDC)	2015-16	2017-18	6.41	5.84	-21.34	54.08	1.07	-	-9.09	1.83	-	-0.07	594

Appendix-2 contd.

Sl. No.	Sector / Name of the Company	Period of accounts	Year in which accounts finalised	Paid-up capital^^	Loans outstan-ding at the end of year	Accumu-lated profit (+)/ loss (-)	Turnover	Net profit (+)/loss (-)	Net impact of Audit comments#	Capital employed @	Return on capital employed $	Percentage of return on capital employed	Return on Equity (Ratio) ∞	Manpower (No. of employees) (as on 31.3.2017)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
80	Jungle Lodges and Resorts Limited (JLR)	2015-16	2016-17	0.92	-	68.22	51.42	8.63	-	69.14	13.31	19.25	0.12	584
81	Karnataka Tourism Infrastructure Limited (KTIL)	2016-17	2017-18	6.50	-	-	-	-0.03	-	6.50	-0.03	-	0.00	-
	Sector-wise total			**17.08**	**5.84**	**49.19**	**806.77**	**9.67**	**-479.78**	**72.11**	**15.11**	**-**	**0.15**	**1,991**
MISCELLANEOUS SECTOR														
82	Karnataka Vocational Training and Skill Development Corporation Limited (KVTSDCL)	2013-14	2015-16	0.01	-	4.20	1.70	*	-	4.21	-	-	-	24
83	Karnataka Public Lands Corporation Limited (KPLCL)	2016-17	2017-18	0.05	-	4.48	1.60	1.18	-	4.53	1.91	42.16	0.26	26
84	Karnataka Mining Environment Restoration Corporation Limited (KMERCL)	2016-17	2017-18	0.01	-	-0.13	0.07	0.02	-	-0.12	0.02	-	-0.17	1
	Sector-wise total			**0.07**	**-**	**8.55**	**3.37**	**1.20**	**-**	**8.62**	**1.93**	**-**	**0.14**	**51**
	TOTAL A (All sector-wise Government Companies)			**41,586.48**	**41,411.00**	**2,334.83**	**48,434.05**	**94.89**	**-2,931.38**	**85,332.31**	**4,156.99**	**-**	**0.00**	**76,206**
B. WORKING STATUTORY CORPORATIONS														
AGRICULTURE AND ALLIED SECTOR														
1	Karnataka State Warehousing Corporation (KSWC)	2015-16	2016-17	7.80	196.70	128.12	62.02	24.12	-0.02	332.62	10.48	3.15	0.18	331
	Sector-wise total			**7.80**	**196.70**	**128.12**	**62.02**	**24.12**	**-0.02**	**332.62**	**10.48**	**-**	**0.18**	**331**

Appendix-2 contd.

Sl. No.	Sector / Name of the Company	Period of accounts	Year in which accounts finalised	Paid-up capital^^	Loans outstanding at the end of year	Accumulated profit (+)/ loss (-)	Turnover	Net profit (+)/loss (-)	Net impact of Audit comments#	Capital employed @	Return on capital employed $	Percentage of return on capital employed	Return on Equity (Ratio) ∞	Manpower (No. of employees) (as on 31.3.2017)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
FINANCING SECTOR														
2	Karnataka State Financial Corporation (KSFC)	2015-16	2016-17	710.01	1,558.89	-437.62	274.50	32.13	116.10	1,831.28	192.22	10.50	0.12	918
	Sector-wise total			**710.01**	**1,558.89**	**-437.62**	**274.50**	**32.13**	**116.10**	**1,831.28**	**192.22**	**-**	**0.12**	**918**
SERVICE SECTOR														
3	Karnataka State Road Transport Corporation (KSRTC)	2015-16	2016-17	290.89	206.86	-3.80	2,778.33	50.95	-7.82	493.95	83.28	16.86	0.18	37,237
4	Bangalore Metropolitan Transport Corporation (BMTC)	2015-16	2016-17	104.59	594.71	316.33	2,098.44	13.73	-10.11	1,015.63	66.84	6.58	0.03	34,306
5	North Western Karnataka Road Transport Corporation (NWKRTC)	2015-16	2016-17	142.31	221.44	-600.95	1,506.55	-38.78	-2.67	-237.20	-9.96	4.20	0.08	24,321
6	North Eastern Karnataka Road Transport Corporation (NEKRTC)	2015-16	2016-17	99.15	66.09	-454.65	1,324.11	-21.92	0.27	-289.41	-10.19	3.52	0.06	2,365
	Sector-wise total			**636.94**	**1,089.10**	**-743.07**	**7,707.43**	**3.98**	**-20.33**	**982.97**	**129.97**	**-**	**0.36**	**98,229**
	TOTAL B (All sector-wise Statutory Corporations)			**1,354.75**	**2,844.69**	**-1,052.57**	**8,043.95**	**60.23**	**-95.75**	**3,146.87**	**332.67**	**-**	**0.65**	**99,478**
	Grand total (A + B)			**42,941.23**	**44,255.69**	**1,282.26**	**56,478.00**	**155.12**	**-2,835.63**	**88,479.18**	**4,489.66**	**-**	**0.65**	**1,75,684**

Appendix-2 contd.

Sl. No.	Sector / Name of the Company	Period of accounts	Year in which accounts finalised	Paid-up capital^^	Loans outstanding at the end of year	Accumulated profit (+)/ loss (-)	Turnover	Net profit (+)/loss (-)	Net impact of Audit comments#	Capital employed @	Return on capital employed $	Percentage of return on capital employed	Return on Equity (Ratio) ∞	Manpower (No. of employees) (as on 31.3.2017)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
C. NON WORKING GOVERNMENT COMPANIES														
AGRICULTURE AND ALLIED SECTOR														
1	Karnataka Agro Industries Corporation Limited (KAIC)	2015-16	2016-17	7.54	68.98	-260.60	Not considered for non-working companies	-17.26	-3.19	-184.08	0.19	-	0.07	-
2	The Mysore Tobacco Company Limited (Subsidiary of Company at C-1) (MTC)	2016-17	2017-18	0.78	1.54	-15.09		0.03	-	-12.77	0.70	-	0.00	1
3	Karnataka Pulpwood Limited (Subsidiary of Company at A-8) (KPL)	2016-17	2017-18	1.25	2.89	-20.88		-	-	-16.74	-	-	-	-
4	The Karnataka State Veneers Limited (Subsidiary of Company at A-9) (KSVL)	2004-05	2005-06	1.00	1.00	-8.85		-0.45	-	-6.85	-0.45	6.57	0.06	-
5	The Mysore Match Company Limited (Subsidiary of Company at A-9) (MMCL)	2016-17	2017-18	0.05	-	-		-0.09	-	0.05	-0.09	-	-1.80	-
	Sector-wise total			**10.62**	**74.41**	**-305.42**		**-17.77**	**-3.19**	**-220.39**	**0.35**	**-**	**0.06**	**1**
MANUFACTURING SECTOR														
6	The Mysore Lamp Works Limited (MLW)	2016-17	2017-18	11.81	116.88	-304.90	Not considered for non-working companies	-12.65	-	-176.21	-0.45	0.26	0.04	-
7	Vijayanagar Steel Limited (VSL)	2016-17	2017-18	12.91	0.58	-0.47		-0.05	-	13.02	-	-	0.00	-

Appendix-2 contd.

Sl. No.	Sector / Name of the Company	Period of accounts	Year in which accounts finalised	Paid-up capital^^	Loans outstan-ding at the end of year	Accumu-lated profit (+)/ loss (-)	Turnover	Net profit (+)/loss (-)	Net impact of Audit comments#	Capital employed @	Return on capital employed $	Percentage of return on capital employed	Return on Equity (Ratio) ∞	Manpower (No. of employees) (as on 31.3.2017)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
8	The Mysore Cosmetics Limited (Subsidiary of Company at A-56) (MCL)	2003-04	2004-05	0.16	-	-3.12	Not considered for non-working companies	-0.79	-	-2.96	-0.79	26.69	0.27	-
9	The Mysore Chrome Tanning Company Limited (Subsidiary of Company atA-66) (MCT)	2016-17	2017-18	0.76	0.41	-8.53		0.04	-	-7.36	0.06	-	-0.01	-
10	NGEF Limited (NGEF)	2002-03	2003-04	46.51	227.24	-408.85		-157.48	-	-135.10	-157.48	116.57	0.43	-
11	Karnataka Telecom Limited (Subsidiary of Company at C-10) (KTL)	2003-04	2004-05	3.00	-	36.11		0.05	-	39.11	0.05	0.13	0.00	-
12	The Mysore Acetate and Chemicals Company Limited (MACCL)	2002-03	2003-04	12.18	13.11	12.18		-0.46	-	37.47	-0.46	-	-0.02	-
	Sector-wise total			**87.33**	**358.22**	**-677.58**	**-**	**-171.34**	**-**	**-232.03**	**-159.07**	**-**	**0.29**	**-**
	TOTAL C (All sector-wise non-working Government Companies)			**97.95**	**432.63**	**(983.00)**	**-**	**-189.11**	**-3.19**	**-452.42**	**-158.72**	**-**	**0.21**	**1**
	Grand Total (A + B + C)			**43,039.18**	**44,688.32**	**299.26**	**56,478.00**	**-33.99**	**-2,838.82**	**88,026.76**	**4,330.94**	**4.92**	**(0.0008)**	**1,75,685**
	In Percentage											**4.92**	**(0.08)**	

^^ Paid-up Capital does not include Share Deposits / Share Application Money pending allotment.

\# Impact of accounts include the net impact of comments of Statutory Auditors and the CAG and is denoted by (+) increase in profit/decrease in losses and (-) decrease in profit/increase in losses.

@ Capital employed represents Shareholders fund and long term borrowings.

$ Return on capital employed has been worked out by adding profit with interest expenses.

∞ Return on Equity has been worked out as Profit after tax/(Paid-up Capital *plus* Free Reserves).

* Prepared Statement of Income and Expenditure account (Sl. No.40, 78, 82).

£ Excess of expenditure over income has been capitalised. No profit and loss account was prepared (Sl.No.30).

$$ No profit and loss account prepared, only pre-operative expenditure (Sl.Nos.34, 37, 77).

\## Turnovers in respect of Companies at Sl.Nos.30, 34 are not included. In respect of RGRHCL (Sl.No.30), the Company is involved in development work and excess of income over is capitalised. Although, the operations of KBJNL (Sl.No.32), KNNL (Sl.No.33) and CNNL (Sl.No.34) are functioning under the administrative control of the Water Resources Department and involved in construction of irrigation projects, the turnover of CNNL is not considered as the Company does not prepare profit and loss account.

Appendix-3
Statement showing the department-wise outstanding Inspection Reports (I.Rs)
(*Referred to in Paragraph 1.26*)

Sl. No.	Name of the Department	No. of PSUs	No. of outstanding I.Rs.	No. of outstanding Paragraphs	Year from which outstanding
1	Agriculture and Horticulture	9	19	99	2005-06
2	Animal Husbandry, Fisheries/ Forest, ecology and environment	6	12	100	2007-08
3	Commerce and Industries	20	36	321	2010-11
4	Transport	4	66	390	2010-11
5	Co-operation	1	2	24	2011-12
6	Department of Tourism	1	1	12	2014-15
7	Water Resources	4	169	782	2010-11
8	Public Works	2	3	23	2012-13
9	Energy	11	230	1662	2010-11
10	Social Welfare and Labour / Women and Child Welfare	8	25	259	2006-07
11	Food, Civil Supplies and Consumer Affairs	1	2	16	2012-13
12	Finance	2	13	61	2010-11
13	Housing	1	3	18	2008-09
14	Information and Technology	1	1	17	2015-16
15	Urban Development	2	4	56	2011-12
16	Employment and Training	1	3	82	2013-14
17	Home	1	3	13	2010-11
18	Rural Development and Panchayat Raj	1	4	40	2006-07
19	Department of revenue	1	1	12	2012-13
20	Kannada, Culture and Information Department	1	1	15	2014-15
	Total℘	**78**	**598**	**4002**	

℘ Excludes Inspection Reports in respect of Departmental Undertakings and Karnataka Electricity Regulatory Commission.

Appendix-4

(*Referred to in Paragraphs 2.2.10, 2.2.12.7*)

Details of selected Projects and status of achievement of the objectives in Cauvery Neeravari Nigama Limited

(₹ in crore)

Category/ Project	Awarded cost	Date(s) of Award of work	Expenditure incurred[155] (March 2017)	Scheduled date of completion	Status of the project as on June 2017 with month of completion (*per cent* completed)	Status of achievement of the objectives envisaged in the Project Reports
Potential oriented works						
1.Hemavathy (77 works test-checked)	73.68	September 2012 to March 2017	54.93	March 2013 to June 2017	**Yet to be completed**	Creation of 5,968 ha of irrigation potential out of 11,706 ha[156] in km 201 to km 240 of Tumakuru Branch Canal under the Project has not been achieved, as works in these stretches have not been completed (November 2017).
2.Malalur Lift Irrigation Scheme (LIS)	6.31	August 2012	2.25	August 2013	**Yet to be completed** (35.66)	Providing irrigation to 1,200 acres (485 ha) of land has not been achieved. In spite of non-completion of the project, 485 ha have been declared as created with irrigation potential.
Drinking Water Schemes (DWS)						
3.Elechakana-halli	17.75	July 2014	7.51	May 2015	**Yet to be completed** (42.31)	Filling up of six tanks (to provide drinking water to 28 villages) has not been achieved.
4.Alambur	253.58	February 2012	260.43	August 2013	**Delayed but completed** (April 2015)[157] (100)	Filling up of 20 tanks (to provide drinking water to 52 villages) was achieved belatedly, after delay of 1½ years.
5.Shivasandra	12.43	March 2015	8.59	April 2016	**Delayed but completed** (July 2016) (100)	Project was yet to be operationalised for last one year for want of power connection, resulting in not filling up seven tanks (to supply drinking water to 19 villages).

[155] The expenditure incurred mentioned here differs from the values adopted for purpose of sampling, as the values mentioned therein represents expenditure incurred only during the last five years (2012-17), while the expenditure mentioned here represents total expenditure on the work, including those prior to 2012.

[156] The potential was stated to be 12,218 ha from km 201 to km 240 in certain other documents of the Company.

[157] The work was commissioned in three Stages: Stage-1 in August 2014, Stage-2 in December 2014 and Stage-3 in April 2015.

Category/ Project	Awarded cost	Date(s) of Award of work	Expendi-ture incurred[155] (March 2017)	Scheduled date of completion	Status of the project as on June 2017 with month of completion (*per cent* completed)	Status of achievement of the objectives envisaged in the Project Reports
6.Alilughatta and other tanks[158]	32.71	May 2015	25.85	May 2016	**Yet to be completed** (79.03)	Filling up of eight tanks (to supply drinking water to 66 villages) has not been achieved, even after delay of one year.
7.Kanva	180.78 + 44.22 (Additi-onal work)	February 2013 and November 2016	200.22	August 2014 and March 2017	**Delayed but completed** (May 2015) **Additional work yet to be completed** (88.99)	Filling up of 17 tanks (to supply drinking water to 115 villages) has been completed after delay of nine months. Additional work to fill 62 tanks in forest areas are pending.
8.Nuggehalli	16.68	March 2013	9.52	September 2014	**Yet to be completed** (57.07)	Filling up of 11 tanks (to provide drinking water to 15 villages) has not been achieved, even after lapse of three years.
9.Sriranga	324.68	December 2015	101.54	December 2017	**Work delayed, but completion date was not due** (31.27)	The work of creating infrastructure for filling up of 83 tanks (to supply drinking water to 277 villages) are not yet due for completion, and was behind schedule.
10.Doddaguni	3.69	July 2012	4.49*	August 2013	**Completed in time** (August 2013) (100)	The work of creating infrastructure to fill Doddaguni tank (to provide drinking water to the 15 villages) was completed on time.
Modernisation, improvement and other capital works						
11.Garaka-halli LIS	11.31	July 1999/ January 2010/ January 2016	12.47*	June 2000/ March 2011/ April 2016	**Yet to be completed** (minor works pending)	Objective of filling up 11 tanks (15 villages) not achieved, even after delay of one year.
12.Chiklihole	4.48	October 2015 to April 2016	4.83	March 2016/ August 2016	**Delayed but completed** (March 2017) (100)	Work of strengthening embankment and improvements has been completed after delay of six months, thereby resulting in difficulty to provide water to tail end for one season.
13.Iggalur Barrage: **a)** ***Rejuvenation of LIS D-point***	1.76	March 2015	1.61	June 2015	**Delayed but completed** (March 2016) (100)	Filling up of Elethotadahalli tank has been achieved after delay of nine months.

[158] The project involved providing drinking water to villages by lifting water from different point of the Tumakuru Branch Canal (TBC) to fill Hagalwadi tank (from km 83.34), Alilughatta and Amanikere tanks (from km 88.35), Mathikere, Hosahalli and Shivanehalli tanks (from km 93.85), Kodiyala tank (from km 98.95) Cheluru tank (from km 101.38).

Category/ Project	Awarded cost	Date(s) of Award of work	Expenditure incurred[155] (March 2017)	Scheduled date of completion	Status of the project as on June 2017 with month of completion (*per cent* completed)	Status of achievement of the objectives envisaged in the Project Reports
b)Replacement of starters of LIS C-point	0.07	April 2015	0.07	May 2015	**Delayed but completed** (December 2015) (100)	Proper functioning of Pumps was affected for six months (one season).
14.Chikkaballi pickup canal	5.83	June 2010	6.70*	July 2011	**Delayed but completed** (June 2015) (100)	Objective of supplying water to 3,200 acres of *suffering achkat* to the tail end of Keragodu Branch canal was achieved after delay of four years.
15.Modernisation of Nugu High Level Canal	109.11	June 2016	107.73	January 2017	**Completed in time** (January 2017) (100)	Objective of supplying water to the *suffering atchkat* of 1,310 ha has been achieved in time.
16.Hanagodu series (Five of the 36 packages test-checked)	1.19	February 2012 to March 2012	1.14	May 2012 to July 2012	**Delayed but completed** (June 2012 to June 2014) (100)	These were in the nature of protective works. The works were delayed up to two years, resulting in difficulty to fill water to 42 tanks.
17.Modernis-ation of Hemavathy Left Bank Canal (HLBC)	620.62	October 2015	428.71	July 2017	**Completed major items of work in time** (August 2016) (100)	The work of modernisation to enhance the capacity to discharge 4,000 cusecs water through the canal was achieved in time.
Restoration and Rejuvenation of Rivers						
18.Arkavathy	24.08 + 1.63 (Additio-nal work)	August 2012/ January 2017	19.13	May 2013/ April 2017	**Package I, III delayed but completed** (December 2013/March 2014) **Additional work** (package-II) **yet to be completed** (74.41)	The Company conducted impact study by visual method[159] on 241 of the 582 tanks. It was found that 37 tanks filled up 100%, 48 tanks (80 % to 100 %), 73 tanks (60 % to 80 %) and 83 tanks (below 60 %). Further, it was also noticed that Heserghatta and TG Halli reservoir received inflows after a long period.
19.Shimsha	The work not yet tendered and only cost on advertisements for tendering was incurred.					The work was yet to be taken up (June 2017).

Source: Compiled from the records of the Company

**In respect of these projects, there was Extra Financial Implication and hence the actual costs exceed initial awarded costs.*

[159] Due to deficient rainfall in 2015-16 and 2016-17 and as no data (pre and post implementation) of the tanks was maintained by the Minor Irrigation Department for all the tanks, it was not possible to evaluate the impact in audit, nor verify the veracity of the Impact Study done by the Company.

Appendix-5

(*Referred to in Paragraph 2.2.11.6*)

Details of funds requested from Government, allocated by Cauvery Neeravari Nigama Limited and actual expenditure incurred during 2012-17

(A: ₹ in crore) and (B: in *per cent*)

Category	2012-13			2013-14			2014-15			2015-16			2016-17		
	Funds requested	Allotted for works	Actual Expend-iture	Funds requested	Allotted for works	Actual Expend-iture	Funds requested	Allotted for works	Actual Expend-iture	Funds requested	Allotted for works	Actual Expend-iture	Funds requested	Allotted for works	Actual Expend-iture
A. In monetary terms ₹ in crore)															
Potential oriented works	632	265	198	291	248	182	Individual allocation not available	165	178	497	144	161	550	135	219
Field Irrigation Channels		29	8		8	5		7	2		9	1		1	1
Drinking Water Schemes/Tank filling	482	183	124	465	274	242		180	112	597	99	116	1032	260	262
Modernisation/improvements and other capital works	1129	465	289	1302	513	424		562	400	1735	596	581	1871	862	1060
Land acquisition	85	50	45	100	30	56		75	48	598	150	113	273	197	127
Maintenance	150	71	62	110	54	63		63	62	88	62	67	250	62	48
Establishment	100	90	94	110	80	101		126	108	138	137	109	150	125	103
Debt servicing and Guarantee commission	162	162	158	62	63	60		15	14	53	66	45	107	94	116
Accelerated Irrigation Benefit Programme, Scheduled Castes Plan, Tribal Sub-Plan, Special Development Plan (Others)	0	137	61	0	309	91		282	163	979	568	150	330	467	256
Total	**2740**	**1452**	**1039**	**2440**	**1579**	**1224**	**3250**	**1475**	**1087**	**4685**	**1831**	**1343**	**4563**	**2202**	**2192**
B. In *per cent* (corresponding to above)															
Potential oriented works	23	18	19	12	16	15		11	16	11	8	12	12	6	10
Field Irrigation Channels		2	1		1	*			*	*	*	*		*	*
Drinking Water Schemes/Tank filling	18	13	12	18	17	20		12	10	13	5	9	23	12	12
Modernisation/ improvements of canals and other capital works	41	32	28	53	32	35		38	37	37	33	43	41	39	48
Land acquisition	3	3	4	4	2	5		5	4	13	8	8	6	9	6
Maintenance	5	5	6	5	3	5		4	6	2	3	5	5	3	2
Establishment	4	6	9	5	5	8		9	10	3	7	8	3	6	5
Debt servicing and Guarantee commission	6	11	15	3	4	5		1	1	1	4	3	2	4	5
Accelerated Irrigation Benefit Programme, Scheduled Castes Plan, Tribal Sub-Plan, Special Development Plan (Others)	0	10	6	0	20	7	0	20	16	20	32	12	8	21	12
	100	100	100	100	100	100	0	100	100	100	100	100	100	100	100

**less than one per cent* (*Source: MMR of the Company*)

Appendix-6

(*Referred to in Paragraphs 2.2.11.10, 2.2.12.4*)

Deficiencies noticed in the preparation of estimates in Cauvery Neeravari Nigama Limited

Sl. No.	Requirement/Norms	Key deficiencies noticed in Audit	Cause and effect of the lapse
1	• Paragraph 115 to 133 of PWD Code Volume-1 provides elaborate guidelines to be followed at the time of preparation and sanction of the estimate. • As per Internal Control Manual of KBJNL (Chapter – VI - Preparation of Estimates-para 3.1 and 3.2 and Annexure-XIV, it was the responsibility of the concerned Executive Engineer to prepare the estimates and the estimates should have been prepared after detailed survey investigation and considering most economic technically feasible alignment.	• **Chikkaballi Pickup Canal**: The work of construction of 31 pipe crossovers was omitted while preparing estimate in 2009.	• Due to defective estimate, work was delayed. Water could not be provided to the suffering achkat of Keragodu Branch canal. The estimate was defective due to lapse on the part of the Company officials for which the Chief Engineer directed to take action on the Officers concerned. The Government replied that the work was carried out as per instructions of Chief Engineer. The fact remained that the estimates were deficient to that extent.
		• **Restoration and Rejuvenation of Arkavathy river**: The work of removal of silt, which was in the form of liquid waste generated by the villages and cities and flowing along 70 km stream under Package-III, was not included in the estimate. The contractor agreed to execute the work as an extra item at then prevailing Schedule of Rates, which was not agreed[160] by the Company.	• The Company did not access the field conditions and include the item of removal of liquid waste in the estimate. In the meeting held in June 2016, it was stated that the liquid waste flowing in the stream did not hamper the flow in the stream and hence the work was not executed. • As a result of not ensuring the site conditions and non-inclusion of work of removal of liquid waste effected the quality of water flowing in the stream and was detrimental to the rejuvenation of the river flows. The Government replied that item of removal of liquid waste was not included in the estimate as it did not cause obstruction to flow of water. However, subsequently, the farmers highlighted that the congestion in the main stream was causing submergence of agricultural land. The company failed to include this item in the estimate and has also failed to execute the work till date (September 2017) so as to ease the flow of water.
		Garakahalli LIS: The main work of Lift	• Lapse on the part of the Company in not recording the reasons for excluding the item of linking of

[160] The original work was awarded at 11.57 *per cent* less than the updated cost.

Sl. No.	Requirement/Norms	Key deficiencies noticed in Audit	Cause and effect of the lapse
		Irrigation was awarded in July 1999 and as it was not completed, it was again awarded in January 2010. The work was completed in March 2012. In both these tenders (1999/2010), the work of linking 11 tanks through pipes was not included while inviting tenders, though it was present in the estimate.	tanks, while inviting tenders in 1999/2010. • The objective of filling up 11 tanks (to provide drinking water to 15 villages) was delayed by four years. The Government replied that higher authorities of the Company decided to take up the work of linking the tanks after completion of the scheme. The reply further stated that there was no delay and objective was achieved by letting out water in open canal from the last four years. The reply was not justified as the scheme was completed in 2012. However, the work of linking the canals with pipes were awarded in 2016, though the estimate prepared in 1997 contained provision for connecting the tanks with pipes.
2	• Circular instructions (November 2009) of the Company, mandate that the Competent Authority who accords technical sanction to the detailed estimate shall visit the site of work to ensure that the provisions made in the estimate are commensurate with the site conditions. • Circular instructions (July 2004/June 2012) stipulated controlled blasting can be resorted keeping in view the danger zone of 300 metres radial distance from blasting site to the village limit, human habitation, permanent structure, National Highway and Railways. • As per General conditions of contract (Clause 6), the contractor was also advised to visit the site, before making his offer.	**Modernisation of Hemavathy Left Bank Canal**: Incorrect classification of strata, incorrect length of the perimeter in the embankment reaches and insufficient provision for controlled blasting in the estimates led to Extra Financial Implications (EFI).	• This was an existing canal and its condition/strata and habitations were visible. Evidently, Competent Authorities did not conduct site inspections before preparation of estimates as per the extant orders. • Preparation of defective estimates, led to the EFI of ₹ 145.05 crore in addition to the awarded cost of ₹ 620.62 crore. The Government accepted (November 2017) that in the DPR, provisions for excavation was not as per actual and to avoid steeper slopes, it was decided to provide berms and flatter slopes during construction resulting in increased quantity. Further, it was also accepted in the reply that perimeter in some of the embankment reaches was computed wrongly by the consultant and escaped the attention during random inspection.

Appendix-7

(*Referred to in Paragraph 2.2.12.2*)

Details of delay in submission of design and drawings in test checked projects in Cauvery Neeravari Nigama Limited

Project	Due date for submission and approval of drawings	Date of submission by the contractor	Delay in submission by contractor (months)	Date of approval by the company	Time taken by the company for approval from the date of submission by the contractor (months)	Overall delay in approval of drawings from the due date of approval (months)
Alambur	May 2012	February 2012 to June 2013	12	March 2012 to August 2013	1 to 6	15
Malalur LIS	October 2012	October 2012 to November 2012	nil	January 2013 to December 2013	3 to 13	13
Nuggehalli	August 2013	July 2013 to June 2014	11	August 2013 to May 2015	4 to 6	22
Kanva	July 2013	June 2013 to July 2014	12	August 2013 to October 2014	2 to 3	15
Sriranga	February 2016	January 2016	No delay	September 2016	8	9
Alilughatta and other tanks	Not available	November 2015	No delay	March 2016	4	4

Appendix-8

(*Referred in Paragraph 2.2.11.8*)

Details of achievement in respect of Water Users Co-operative Societies Registered, Memorandum of Understanding entered and Functioning, as at March 2017

(in ha)

Major Project	Area irrigated	Registered		MoU entered		Functioning	
		No. of WUCS	Corres-ponding area	No. of WUCS	Corres-ponding area	No. of WUCS	Corres-ponding area
Krishna Raja Sagar	85029	182	85029	98	51522	98	51522
Hemavathy	239362	227	239362	75	44060	75	44060
Kabini	47136	119	47136	89	45977	89	45977
Harangi	59883	102	59883	95	42187	95	42187
Total	**431410**	**630**	**431410**	**357**	**183746**	**357**	**183746**

Source: CADA Secretariat Monthly Meeting Review Reports

Appendix-9

(*Referred in Paragraph 3.1*)

Quantity of work executed by the Contractors during the specified closure period under Bhadra Project in Karnataka Neeravari Nigam Limited

Modernisation of Bhadra Right Bank Main Canal from 0 km to 20 km - Balance work (Package 2a1)								
Sl. No.	**Items eligible for incentive**	**Description of the work**	**Unit**	**Original tendered quantities**	**Revised quantities**	**Actual quantity executed within single closure period^^**	**Percentage of completion to the revised quantities**	**Incentive paid (5th RA bill) (₹ in lakh)**
1	E2	Excavation in all kinds of soil	Cum	2,44,716.00	1,14,400.98	99,214.81	86.73	18.92
2	E3	Excavation in Soft Rock	Cum	9,847.00	9,847.05	7,890.80	80.13	2.13
3	E4	Excavation in Hard Rock	Cum	2,672.50	2,672.50	-	-	-
4#	E6	Providing Semi-pervious/Pervious casing embankment	Cum	88,270.00	1,78,520.59	88,270.00	49.45	41.63
5	E7	Providing and constructing un-coarsed rubble stone masonry (from quarry)	Cum	17,683.00	17,682.69	14,802.20	83.71	115.09
6#	E8	Providing and constructing un-coarsed rubble stone masonry (with excavated items)	Cum	10.14	1,817.07	10.14	0.56	0.01
7	E9	Providing Cement Concrete for Side Lining	Cum	7,447.00	6,103.28	5,465.97	89.56	83.15
8	E10	Providing Cement Concrete for Canal Lining	Sqm.	5,44,326.00	4,44,395.98	3,99,266.15	89.84	694.75
9#	E11	Dismantling, Shifting and re-erecting mechanical concrete paver and DG set	Each	12.00	15.00	12.00	80.00	0.16
10	E12	Providing steel reinforcement	Kg	3,51,361.00	2,72,178.31	2,16,972.66	79.72	41.97
11	E13	Providing expansion joint filler boards	Rmtr.	28,914.00	25,712.86	22,803.61	88.69	5.10
12	E14	Providing GI pressure relief pipes	Each	23,144.00	18,918.00	15,964.00	84.39	6.75
13	E15	Providing Deep filter drains	Each	23,144.00	18,864.00	15,964.00	84.63	2.49
14	S4	Providing Semi-pervious/Pervious casing embankment	Cum	1,223.00	1,223.00	-	-	-
15	S11	Providing steel reinforcement	Kg	3,52,777.00	1,48,480.80	75,949.01	51.15	23.01
*	S12	Providing dry rubble stone pitching	Sqm.	2,302.00	-	-	-	-
*	S14	Providing expansion joint filler boards	Rmtr.	560.00	-	-	-	-
		Total						**1,035.16**

* These items were removed in the modified scope of work.

These items were taken from 5th RA bill, and considered as executed during the single closure period.

^^ Specified closure period was from 2.12.2011 to 5.01.2012.

Modernisation of Bhadra Left Bank Canal Dy.1 to 8 - Balance work (Package 1a1)								
Sl. No.	**Items eligible for incentive**	**Brief Description of the work**	**Unit**	**Original tendered quantities**	**Revised quantities**	**Actual quantity executed within the specified closure period****	**Percentage of completion to the revised quantities**	**Incentive paid (2nd RA bill) (₹ in lakh)**
1	E4	Providing and laying coarse aggregates for bed lining of canal	Cum	2,123.36	1,768.71	1,485.50	83.99	26.58
2	E5	Providing and laying coarse aggregates for side lining of canal	Cum	2,730.09	2,374.12	2,055.01	86.56	16.66
		Total						**43.24**

** Specified closure period was from 4.12.2010 to 05.01.2011 and from 1.06.2011 to 30.06.2011.

Glossary

Term	Definition
Achkat	Area to which water has been supplied. Also called as Ayacut in South Karnataka.
Anicut	A structure across the river (like a barrage).
Cultivable Command Area (CCA)	The Cultivable Command Area represents the geographical area which can be irrigated from an irrigation system and fit for cultivation.
Command Area Development Authority (CADA)	The State of Karnataka enacted Command Area Development Act, 1980, to empower the CADAs which were created in the state on the recommendation of Irrigation Commission Report of 1972. The main aim was to reduce the gap between potential created and potential utilised after the implementation of irrigation projects through several five year plans, to increase the water use efficiency by giving assistance for land levelling and to feed each and every survey number through a network of Field Irrigation Channels. In addition, the Act provides for the reclamation of the affected land due to ill effects of irrigation by cleaning the drainage in the command, creating link and subsurface drains to drain off excess subsurface water. The Agriculture Wing of the CADA was to assist the farmer to grow appropriate crops in the command, to make available those agricultural implements required for land levelling, also to build capacity among the stakeholders along with the co-operative wing of CADA. The Command Area Development Activities are being assisted by the Central Government in the State except in Cauvery basin because of interstate water dispute.
Command Area Development Programme/Water Management (CADP/CADWM)	A Centrally sponsored scheme implemented by State/Central Government for constructing field channels, drainage system and land leveling of undulating land, of the farmers.
Field Irrigation Channels (FICs)	A canal running at the Ridges or boundary of the land and carrying a discharge of less than one cusecs.
Irrigated Potential Created (IPC)	The total gross area proposed to be irrigated under different crops during a year by a project/scheme. The area proposed to be irrigated under more than one crop during the same year and counted as many times as the number of crops grown and irrigated.
Irrigated Potential Utilised (IPU)	The gross area actually irrigated during reference year out of the gross proposed area to be irrigated by the project/scheme during the year.
Major Irrigation projects	A scheme having Cultivable Command Area more than 10,000 hectares.
Medium Irrigation projects	A scheme having Cultivable Command Area more than 2,000 hectares and up to 10,000 hectares individually.
Minor Irrigation projects	A scheme having Cultivable Command Area up to 2,000 hectares individually.
Multipurpose Irrigation projects	A project which serves many purposes at a single time like acting as a hydroelectric power plant, providing a source of clean drinking water, providing irrigation to fields, checking floods and flow of river water *etc*.
Modernisation and Improvement of projects	Modernisation and improvement of projects envisages lining of existing canals, branches, distributaries, water courses and field channels and renewal of existing structures for reduction of conveyance and operational losses.
Other expenditure	Money spent on different instrument of expenditure in a fiscal year and not elsewhere are classified in specific component of expenditure and termed as Other expenditure. This includes money spent to acquire or upgrade physical assets such as construction of concrete and masonary dams, reservoirs, spillways, canals and distributary networks of the irrigation project during a financial year.
Potential oriented work	Works which create of irrigable area.
Participatory Irrigation Management	A term used so as to create a sense of ownership of water sources and irrigation systems among the users of water for promoting economy in water use and preservation of the system, achieving optimum utilisation of available resources, equity in distribution *etc.*
Suffering achkat	An area where FICs are created and does not receive adequate water supply for irrigation.