Report of the
Comptroller and Auditor General of India
on

Public Sector Undertakings

for the year ended March 2016

Government of Tamil Nadu

Report No.7 of 2016

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PREFACE

This report deals with the results of audit of Government Companies and Statutory Corporation for the year ended March 2016.

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 Section 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 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.

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

In respect of Tamil Nadu Electricity Regulatory Commission, the CAG is the sole auditor. The Audit Report on the annual accounts of Tamil Nadu Electricity Regulatory Commission is forwarded separately to the State Government.

The instances mentioned in this Report are those, which came to notice in the course of test audit for the period 2015-16 as well as those which came to notice in earlier years, but could not be reported in the previous reports; matters relating to the period subsequent to 2015-16 have also been included, wherever necessary.

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

OVERVIEW

1 Overview of Government Companies and Statutory Corporations

Audit of Government Companies is governed by Section 139 and 143 of the Companies Act, 2013. The accounts of Government Companies are audited by Statutory Auditors appointed by the CAG. These accounts are also subject to supplementary audit conducted by the CAG. Audit of Statutory Corporations is governed by their respective legislations. As on 31 March 2016, the State of Tamil Nadu had 68 working PSUs (67 Companies and one Statutory Corporation) and six non-working PSUs (all Companies), which employed 2.91 lakh employees. The State PSUs registered a turnover of ₹ 99,850.38 crore as per their latest finalised accounts. This turnover was equal to 8.23 per cent of State's Gross Domestic Product, indicating the important role played by State PSUs in the economy. The PSUs had accumulated losses of ₹ 80,925.82 crore as per their latest finalised accounts.

Investment in PSUs

As on 31 March 2016, the investment (capital and long term loans) in 74 PSUs was ₹ 1,40,677.30 crore. Power sector accounted for 93.21 per cent of total investment and Service sector 2.76 per cent in 2015-16. The Government contributed ₹ 18,416.05 crore towards equity, loans and grants/subsidies during 2015-16.

Performance of PSUs

As per latest finalised accounts, out of 68 working PSUs, 41 PSUs earned profit of ₹ 811.27 crore and 21 PSUs incurred loss of ₹ 15,684.69 crore. The major contributors to profit were Tamil Nadu Newsprint and Papers Limited (₹ 253.93 crore), Tamil Nadu Power Finance and Infrastructure Development Corporation Limited (₹ 108.42 crore), TIDEL Park Limited (₹ 42.14 crore), Tamil Nadu Industrial Investment Corporation Limited (₹ 34.98 crore) and Tamil Nadu Magnesite Limited (₹ 26.65 crore).

In respect of Tamil Nadu Civil Supplies Corporation, the loss is compensated by the State Government. Three Companies neither earned profit nor incurred loss. The newly formed two PSUs viz., Tamil Nadu Polymers Industries Park Limited and Madurai-Thoothukudi Industrial Corridor Development Corporation Limited did not finalise their accounts. Heavy losses were incurred by Tamil Nadu Generation and Distribution Corporation Limited (₹ 12,756.59 crore) and all the eight State Transport Corporations (₹ 2,600.25 crore).

Arrears in accounts

Thirty working PSUs had arrears of 33 accounts as on 30 September 2016, of which three accounts pertained to earlier years and the remaining were 2015-16 accounts.

Winding up of non-working PSUs

There were six non-working PSUs including one under liquidation. The Government may take a decision regarding winding up of six PSUs.

Quality of accounts

The quality of accounts of PSUs needs improvement. During the year, out of 63 accounts finalised, the Statutory Auditors of Government Companies had given unqualified certificates for 32 accounts and qualified certificates for 31 accounts. There were 44 instances of non-compliance with Accounting Standards. Reports of Statutory Auditors on internal control of the Companies indicated several weak areas.

Response of the Government to Audit

The Government of Tamil Nadu had instructed their administrative department to submit replies to the paragraphs/reviews included in the Audit Report of CAG of India within two months of their presentation to the Legislature. However, out of nine Performance Audit Reports and 83 paragraphs included in the Audit Reports from the year 2008-09 to 2013-14, the explanatory notes in respect of four Performance Audit Reports and 25 paragraphs were not received from seven departments as of October 2016. Further, the Action Taken Notes to 364 paragraphs, pertaining to 63 Reports of Committee on Public Undertakings (COPU) presented to the Legislature between April 2002 and March 2016 were not received as of October 2016.

Performance Audit Relating to Government Company

2.1 Performance Audit on Industrial Development Activities of Tamil Nadu Industrial Investment Corporation Limited

Tamil Nadu Industrial Investment Corporation Limited (Company), is a deemed State Financial Corporation under the State Financial Corporation Act, 1951. Its share capital of ₹ 321 crore was contributed by Government of Tamil Nadu (GoTN) and Small Industries Development Bank of India (SIDBI) to the extent of 94.56 per cent and 5.30 per cent respectively. Audit took up the Performance Audit of this Company covering its activities from 2011-16 to evaluate the system for planning, mobilisation of funds, sanction and disbursement of loans, monitoring of the assisted units, recovery performance and effectiveness of internal control.

Planning

The Company did not prepare corporate plan setting up long term goals and strategy as directed (April 1989) by the GoTN. The annual plans also suffered due to fixation of adhoc targets, belated approval by the Board of Directors (BOD) etc.

Mobilisation of Funds

Short comings noticed in mobilisation of funds were (i) non receipt of equity from two State PSUs as committed by GoTN, (ii) lack of plan for disinvestment of shares from assisted units, which had market value of ₹ 173.87 crore and loss of ₹ 36.17 crore due to non availing of exit offers from three companies and (iii) not floating the public bonds at the market rate of interest, resulting in additional interest commitment of ₹ 9.56 crore.

Sanction and disbursement of loan

Deficiencies in the sanctions included assistance to incapable promoters, sanction of loans inspite of non fulfillment of conditions, sanction to unviable projects, sanction with inadequate collateral securities, sanction based on unrealistic projection etc. These failures led to accumulation of overdues amounting to ₹ 47.44 crore in respect of 22 cases test checked.

Monitoring of assisted units

There was shortfall ranging between 10 and 53 per cent during 2011-16 in carrying out mandatory inspection of the assisted units. The deficient inspections led to accumulation of overdues amounting to ₹ 35.53 crore in 15 cases test checked. The Company also failed to obtain the audited financial statements and monthly stock statements from the assisted units as required.

Recovery performance

The Company fixed the targets for recovery ranging from 25 to 85 per cent of total dues during 2011-16, which were equivalent to or less than the current dues. Due to deficiencies in recovery, the Company could not recover ₹ 56.37 crore in 13 cases test checked.

Though the Company agreed with SIDBI to maintain Non Performing Assets (NPA) within 10 per cent, its NPA increased from 10.27 in 2011-12 to 13.64 per cent in 2015-16, resulting in non-accrual of internal source of funds to the extent of ₹ 83.23 crore.

During 2011-16, the Company took possession of 111 units out of 169 defaulting units. The shortfall in take-over of defaulting units indicated that the Company had exercised selective approach in take-over of the assets without any recorded justification.

The Company sold assets of 135 units in auction and realised ₹ 11.88 crore, which constituted only two per cent of the total outstanding amount of ₹ 677.35 crore in respect of these units.

Internal Control and Internal Audit

Out of the total of 42 Board meetings during 2011-16, the Directors representing Micro, Small and Medium Enterprises and Finance departments were absent in 30/28 meetings. The contract for web centric solutions to be completed within two years of award (March 2011) remained incomplete even after five years. The Company had no internal audit manual and the audit committee did not review the internal audit functions.

Conclusion

The performance of the Company would have been better if it had drawn long term strategic plan, mobilised its resources economically and avoided deficiencies in sanctions, monitoring the assisted units and recovery of loans. These deficiencies found in the earlier Performance Audit continued despite COPU's recommendation to improve the system for sanction, disbursement and recovery of loan.

Recommendations

Drawing long-term corporate plan, evaluation of cost of borrowings from various sources to ensure economy, ensuring the viability of the project by independent assessment of the projections, ensuring strict adherence to the procedures for sanction and disbursement, continuously monitoring the assisted units, etc., are some of the Audit's recommendations.

2.2 Follow up IT audit on the Computerisation of Tamil Nadu State Marketing Corporation Limited

Tamil Nadu State Marketing Corporation Limited (Company) has the exclusive privilege of wholesale supply and retail vending of Indian Made Foreign Liquor (IMFL) in the State. IMFL is procured and distributed through its 43 depots and 6,200 Retail Vending Shops (RV shops) across Tamil Nadu. The Company had computerised its operations in 1998. The Company decided to upgrade the hardware and software to Oracle platform in three phases. The third phase commenced in 2009.

Previous Audit Coverage

An IT Review on the Computerisation of TASMAC was included in the Audit Report (Commercial) 2008-09 with seven recommendations which were accepted by the Company.

The present audit was taken up, as a follow-up, to assess whether the recommendations were implemented.

Recommendation 1- Uniform software in all depots

Uniform software has been implemented in 43 depots. However, due to poor management of contracts, the implementation of third phase of upgradation of software got delayed by 6 years.

Recommendation 2-Computerisation of SRM, DM offices and RV shops

The SRM and DM offices were linked with neither Godown Monitoring System (GMS) nor Integrated Information Management System (IMS) leading to duplication of works. Though 2,204 RV shops were installed with Electronic Billing Machines (EBMs), the data generated could not be used for decision making due to lack of reliability as invoices were not captured during the course of actual sales.

Recommendation 3- Input and validation checks

The deficiencies pointed out in the earlier Report such as non-availability of provision to capture multiple batch numbers, missing continuity in system generated numbers, sales to customers without verifying licenses, deficiencies in issue of transport permit, flaws in mapping tax laws and manual intervention in system generated numbers continue to remain till date (November 2016).

Recommendation 4- Development of in-house expertise for maintenance of the system

The Company did not have an IT wing supported by qualified personnel. The Company continued to employ outsourced programmers to maintain the systems.

Recommendation 5 –Protect validity and confidentiality of transfer of data

The Company continued to transfer data from depots to Corporate Office (CO) through private e-mail servers and over telephone, reducing the reliability and confidentiality of the data.

Recommendation 6 - Lay down Business Continuity and Disaster Recovery Planning

There was no access control policy to regulate access to the system. A documented backup policy involving storage both at on-site and off-site and regular restoration of backup data did not exist even now at the Company.

Compliance Audit Observations

Audit observations included in the Report highlight deficiencies in the management of PSUs with sizeable financial implications. Irregularities pointed out include the following:

Four PSUs incurred wasteful expenditure ₹ 119.29 crore due to diversion of PDS rice, not availing Government loan, avoidable cancellation of valid tender, delay in rectification of defective spares, delay in processing of tender and non-maintenance of air pollution within the norms.

(Paragraphs 3.2, 3.4, 3.8, 3.10, 3.12, 3.13.6 and 3.13.8)

Four PSUs suffered loss of revenue of ₹ 58.65 crore, due to not enforcing contractual terms, not finalising valid tender, not adopting correct selling price and not maintaining the property in rentable condition.

(Paragraphs 3.1, 3.3, 3.6 and 3.7)

Two PSUs incurred infructuous expenditure of ₹ 8.57 crore due to venturing into a new quarry without ensuring marketability of the granite and belated decision on realignment of transmission lines.

(Paragraphs 3.5 and 3.9)

One PSU made irregular payment of ₹ 11.45 crore in violation of the contractual terms.

(Paragraph 3.11)

Some of the important Audit observations are given below:

Tamil Nadu Industrial Development Corporation Limited suffered a loss of ₹ 46.65 crore due to non-collection of service charges as per Joint Venture agreement.

(Paragraph 3.1)

Diversion of paddy procured under Public Distribution System by **Tamil Nadu Civil Supplies Corporation,** resulted in wrongful availing of subsidy of ₹ 14.55 crore from the Government of India, besides incurring extra expenditure of ₹ 3.19 crore.

(Paragraph 3.2)

Tamil Nadu State Transport Corporation (Coimbatore) Limited suffered a potential revenue loss of ₹ 9.58 crore due to incorrect rejection of the valid tender.

(Paragraph 3.3)

Tamil Nadu Generation and Distribution Corporation Limited

Unwarranted delays in rectification of the rotor fault in hydro power station led to additional extra expenditure of ₹ 44.74 crore.

(Paragraph 3.10)

The thermal plants of TANGEDCO continued to function without adhering to the norms for air, water and noise pollutions as the SPM levels and carbon emission remained high due to non usage of clean beneficiated coal, keeping the station heat rate higher than the prescribed level, *etc*. A quantum of 69.58 million tonnes of ash remained in the ash dyke in the three power plants, which was against the MoEFCC's guidelines for phasing out accumulation of ash in the land. The plants polluted the sea and river water due to absence of ETP and STP. The envisaged equipments and the green belt areas for controlling the noise pollution were not being maintained. The management of hazardous waste was also not as per the requirement of TNPCB. Against the revenue of ₹ 625.93 crore earned by disposal of fly ash, TANGEDCO spent only ₹ 61.91 crore on environment management, which was against the MoEFCC guidelines for spending the revenue only for infrastructure creation for disposal of fly ash.

(Paragraph 3.13)

CHAPTER - I

1 Functioning of State Public Sector Undertakings

Introduction

1.1 The State Public Sector Undertakings (PSUs) consist of State Government companies and a Statutory Corporation. The State PSUs are established to carry out activities of commercial nature while keeping in view the welfare of people and also occupy an important place in the State economy. As on 31 March 2016, there were 74 PSUs in Tamil Nadu. Of these, two companies[1] were listed on the stock exchange. During the year 2015-16, three PSUs[2] were incorporated, whereas one PSU[3] was closed down. The details of the State PSUs in Tamil Nadu as on 31 March 2016 are given below:

Table:1.1 Total number of PSUs as on 31 March 2016

Type of PSUs	Working PSUs	Non-working PSUs[4]	Total
Government companies[5]	67	6	73
Statutory Corporation	1	---	1
Total	**68**	**6**	**74**

(Source: Details collected from the Government)

The working PSUs registered a turnover of ₹ 99,850.38 crore, as per their latest finalised accounts as of September 2016. This turnover was equal to 8.23 *per cent* of State Gross Domestic Product (GDP) for 2015-16. The working PSUs incurred loss of ₹ 14,873.42 crore, as per their latest finalised accounts, as of September 2016. They had employed 2.91 lakh employees as at the end of March 2016.

As on 31 March 2016, there were six non-working PSUs existing from 14 to 26 years and having investment of ₹ 69.61 crore.

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1 Tamil Nadu Newsprint and Papers Limited and Tamil Nadu Industrial Explosives Limited.

2 Tamil Nadu Infrastructure Fund Management Corporation Limited, Tamil Nadu Polymer Industries Park Limited and Madurai-Thoothukudi Industrial Corridor Development Corporation Limited.

3 Tamil Nadu Sugarcane Farm Corporation Limited.

4 Non-working PSUs are those which have ceased to carry on their operations.

5 Government PSUs include other companies referred to in Section 139 (5) and 139 (7) of the Companies Act, 2013.

Accountability frame work

1.2 The process of audit of Government companies is governed by respective provisions of Section 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 51 *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 a Government Company. Further, as per sub-Section 7 of Section 143 of the Act, the Comptroller and Auditor General of India (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 and the provisions of Section 19 A of the CAG'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. The audit of the finanacial 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 (as defined in Section 2 (45) of the Act) are audited by Statutory Auditors, who are appointed by CAG as *per* the provisions of Section 139 (5) or (7) of the Act. The Statutory Auditors are required to submit a copy of the Audit Report to the CAG, which among other things, include financial statements of the Company under Section 143 (5) of the Act. These financial statements are subject to supplementary audit to be conducted by CAG within 60 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 its respective legislation. At present, in Tamil Nadu, there is only one Statutory Corporation *viz*., Tamil Nadu Warehousing Corporation. Its audit is conducted by Chartered Accountants and supplementary audit by CAG, in pursuance of the State Warehousing Corporations Act, 1962.

Role of Government and Legislature

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

The State Legislature also monitors the accounting and utilisation of Government investment in the PSUs. For this, the Annual Reports together with the Statutory Auditors' Reports and comments of the CAG, in respect of State Government companies and Separate Audit Report, in case of Statutory Corporation, are to be placed before the Legislature under Section 394 of the

Act or as stipulated in the respective Acts. The Audit Reports of CAG are submitted to the Government under Section 19 A of the CAG's (Duties, Powers and Conditions of Service) Act, 1971.

Stake of Government of Tamil Nadu

1.5 The State Government's stake in PSUs is mainly of three types:

- **Share Capital and Loans:** In addition to the share capital contribution, State Government also provides financial assistance by way of loans to the PSUs from time to time.
- **Special Financial Support:** State Government provides budgetary support by way of grants and subsidies to the PSUs, as and when required.
- **Guarantees:** State Government 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 2016, the investment (capital and long-term loans) in 74 PSUs was ₹ 1,40,677.30 crore as per details given below:

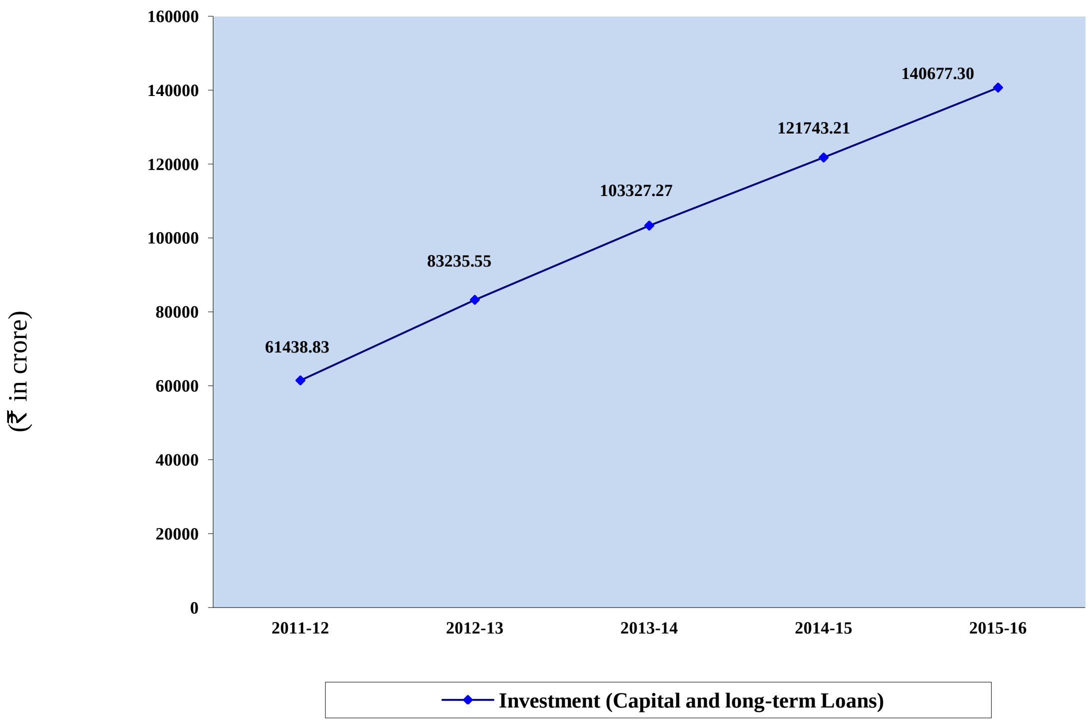
Table 1.2: Total investment in PSUs

(₹ in crore)

Type of PSUs	Government companies			Statutory Corporation			Grand total
	Capital	Long-term loans	Total	Capital	Long-term loans	Total	
Working PSUs	41,758.40	98,841.68	1,40,600.08	7.61	---	7.61	1,40,607.69
Non-working PSUs	47.65	21.96	69.61	---	---	---	69.61
Total	**41,806.05**	**98,863.64**	**1,40,669.69**	**7.61**	**---**	**7.61**	**1,40,677.30**

As on 31 March 2016, of the total investment in State PSUs, 99.95 *per cent* was in working PSUs and the remaining 0.05 *per cent* in non-working PSUs. This total investment consisted of 29.72 *per cent* towards capital and 70.28 *per cent* in long-term loans. The investment has grown by 128.97 *per cent* from ₹ 61,438.83 crore in 2011-12 to ₹ 1,40,677.30 crore in 2015-16, due to loans availed by State Transport Undertakings and power companies from sources like banks and other financial institutions, as shown in the graph below:

Chart 1.1 Total investment in PSUs



1.7 The sector-wise summary of investments in the State PSUs as on 31 March 2016 is given below:

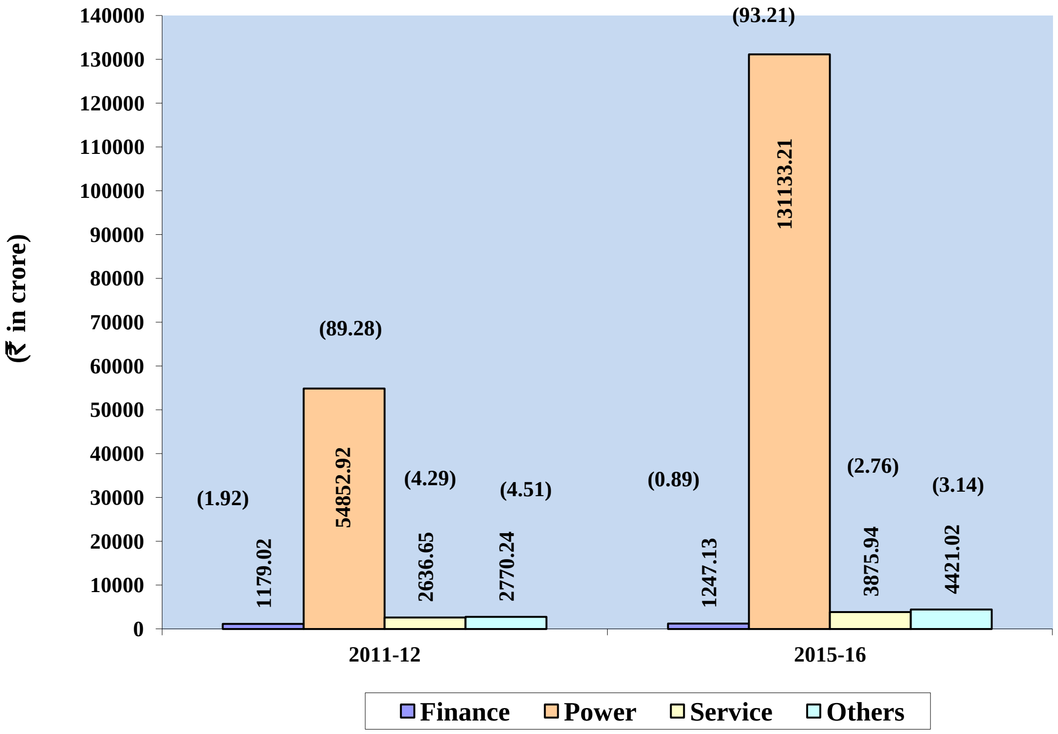
Table 1.3: Sector-wise investment in PSUs

(₹ in crore)

Name of Sector	Government/Other companies		Statutory Corporation	Total	Investment *(In per cent)*
	Working	Non-working	Working		
Power	1,31,133.21	---	---	1,31,133.21	93.21
Manufacturing	2,710.35	35.04	---	2,745.39	1.95
Finance	1,247.13	---	---	1,247.13	0.89
Service	3,868.00	0.33	7.61	3,875.94	2.76
Infrastructure	1,594.16	6.00	---	1,600.16	1.14
Agriculture & Allied	47.23	28.24	---	75.47	0.05
TOTAL	**1,40,600.08**	**69.61**	**7.61**	**1,40,677.30**	

The investment in four significant sectors and percentage thereof at the end of 31 March 2012 and 31 March 2016 are indicated below in the bar chart. The thrust of PSUs investment was mainly in power sector, which increased from 89.28 to 93.21 *per cent* during 2011-12 to 2015-16.

Chart 1.2: Sector-wise investment in PSUs



(Figures in brackets show the sector percentage to total investment)

Special support and returns during the year

1.8 The State Government provides 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 are given below for three years ended 2015-16.

Table 1.4: Details regarding budgetary support to PSUs

(₹ in crore)

Sl. No.	Particulars	2013-14		2014-15		2015-16	
		No. of PSUs	Amount	No. of PSUs	Amount	No. of PSUs	Amount
1	Equity capital outgo from budget	14	2,669.93	14	4,663.25	12	3,515.07
2	Loans given from budget	4	44.48	9	6,479.95	8	858.19
3	Grants/subsidy from budget	19	11,245.18	21	12,224.93	18	14,042.79
4	**Total outgo (1+2+3)**	**23[6]**	**13,959.59**	**27[6]**	**23,368.13**	**25[6]**	**18,416.05**

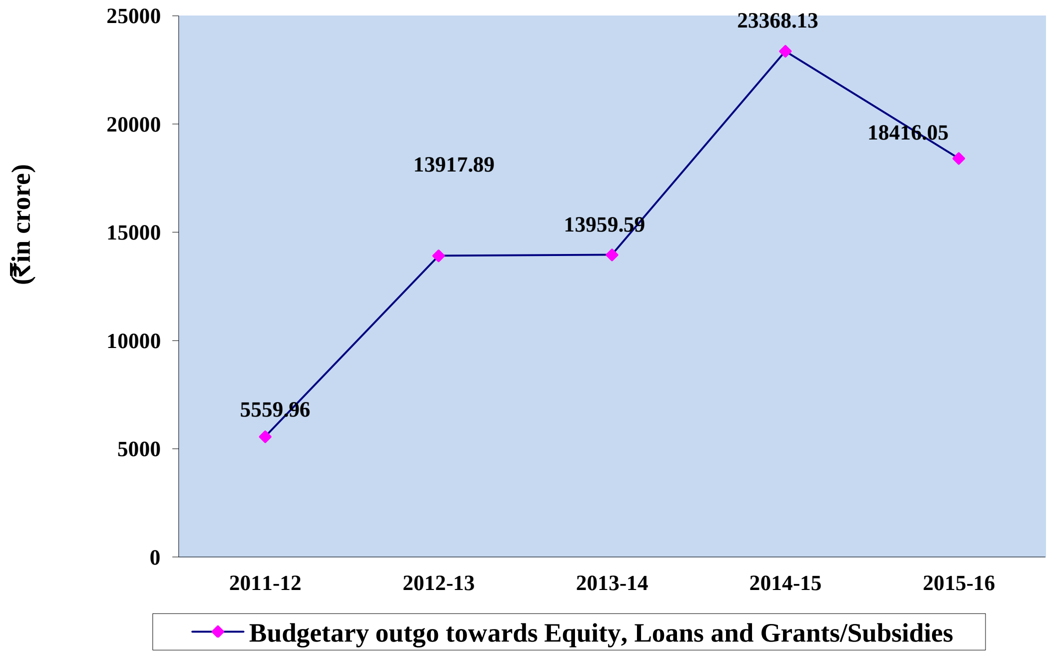
6 These are the actual number of Companies/Corporation, which have received budgetary support in the form of equity, loan, subsidies and grants from the State Government during the respective years.

Sl. No.	Particulars	2013-14		2014-15		2015-16	
		No. of PSUs	Amount	No. of PSUs	Amount	No. of PSUs	Amount
5	Loans converted into equity	---	---	1	40.00	---	---
6	Loans written off	---	---	---	---	---	---
7	Interest/penal interest written off	---	---	---	---	---	---
8	**Total waiver (6+7)**	---	---	---	---	---	---
9	Guarantees issued	9	13,160.11	7	6,548.33	8	2,108.59
10	Guarantee commitment	13	39,716.81	13	46,853.57	13	49,083.40

(Source: Details furnished by the companies)

The details regarding budgetary outgo towards equity, loans and grants/subsidies for past five years upto 2015-16 are given in the graph below:

Chart 1.3: Budgetary outgo towards Equity, Loans and Grants/Subsidies



Budgetary support in respect of equity, loans and grants/subsidies showed an increasing trend from 2012-13 to 2015-16 mainly due to increase in equity, loans and subsidy by the State Government over the years to electricity companies, Tamil Nadu Civil Supplies Corporation and State Transport Corporations.

PSUs are liable to pay guarantee commission to the State Government upto 0.5 *per cent* of guarantee amount utilised by them on raising cash credit from banks and loans from other sources including operating Letters of Credit. The guarantee commitment increased to ₹ 49,083.40 crore in 2015-16 from ₹ 46,853.57 crore in 2014-15. Further, nine PSUs paid guarantee fee to the tune of ₹ 1.29 crore during 2015-16. There were three PSUs[7], which did not pay guarantee commission during the year and the accumulated/outstanding guarantee commission thereagainst was ₹ 224.06 crore as on 31 March 2016.

Reconciliation with Finance Accounts

1.9 The figures in respect of equity, loans and guarantees, outstanding as per 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 agree, the concerned PSUs and the Finance Department should carry out reconciliation of differences. The position in this regard as on 31 March 2016 is stated below:

Table:1.5 Equity, loans, guarantees outstanding as per finance accounts *vis-a-vis* records of PSUs

(₹ in crore)

Outstanding in respect of	Amount as per Finance Accounts	Amount as per records of PSUs	Difference
Equity	22,656.34	22,628.35	27.99
Guarantees	50,677.36	49,083.40	1,593.96

(Source: Finance Accounts for 2015-16 and details furnished by the companies)

Audit observed that the differences occurred in 11 PSUs and eight PSUs, in respect of equity and guarantees, respectively. Reconciliation was pending from June 2009 in case of one PSU[8]. The matter was referred (January 2016) to the Principal Secretary to Government of Tamil Nadu, Finance Department to draw his attention to the need for reconciliation of figures in Finance Accounts and as furnished by the companies in their respective accounts. The Government and PSUs should take concrete steps to reconcile the differences in a time bound manner.

Arrears in finalisation of accounts

1.10 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 September end, in accordance with the provisions of Section 96 (1) of the Act. Failure to do so, may attract penal provisions under Section 99 of the Act. Similarly, in case of Statutory Corporation, its accounts are finalised, audited and presented to the Legislature as per the provisions of State Warehousing Corporations Act, 1962.

The table below provides the details of progress made by working PSUs in finalisation of accounts as on 30 September 2016.

7 Serial Number 10, 47 and 48 of Annexure-2.
8 Tamil Nadu Transmission Corporation Limited.

Table:1.6 Position relating to finalisation of accounts of working PSUs

Sl. No.	Particulars	2011-12	2012-13	2013-14	2014-15	2015-16
1.	Number of working PSUs	64	64	64	65	68
2.	Number of accounts finalised during the year	67	64	68	57	64
3.	Number of accounts in arrears	25	25	21	29	33
4.	Number of working PSUs with arrears in accounts	21	21	17	25	30
5.	Extent of arrears (years)	1 to 3	1 to 3	1 to 2	1 to 2	1 to 2

(Source: Details compiled by audit based on certified accounts of companies)

It can be observed that the number of accounts in arrears had increased from 21 in 2011-12 to 33 in 2015-16. While 27 PSUs had arrears of accounts for the year 2015-16, remaining three PSUs had arrears of accounts for the years 2014-15 and 2015-16.

The Administrative departments have the responsibility to oversee the activities of these entities and to ensure that the accounts are finalised and adopted by these PSUs within stipulated period. The Accountant General (AG), Economic & Revenue Sector Audit, Tamil Nadu has brought the position of the arrears of accounts to the notice of the Additional Chief Secretary, Finance Department every quarter. Arrears in accounts were noticed in 30 working PSUs upto 2015-16. Their net worth could not be assessed in Audit.

1.11 The State Government had invested ₹ 4,177.24 crore in 10 PSUs {equity ₹ 3,293.01 crore (four PSUs) loans: ₹ 679.47 crore (three PSUs) and grants: ₹ 204.76 crore (four PSUs)}, during the years for which accounts have not been finalised, as detailed in **Annexure-1**. In the absence of finalisation of accounts and their subsequent audit, it could not be ensured whether the investments and expenditure incurred have been properly accounted for and the purpose for which the amount was invested was achieved or not. Thus, Government's investment in such PSUs remained outside the control of State Legislature.

1.12 In addition to the above, as on 30 September 2016, there were arrears in finalisation of accounts by non-working PSUs. Out of six non-working PSUs, one PSU *viz*., Tamil Nadu Goods Transport Corporation Limited had submitted winding up proposals and hence, its accounts were not considered due. Of the remaining five non-working PSUs, one[9] Company had submitted its accounts for the year 2015-16. The accounts of four[10] PSUs are in arrears from one to fourteen years.

[9] Southern Structurals Limited.

[10] (i) Tamil Nadu Agro Industries Development Corporation Limited, (ii) Tamil Nadu Poultry Development Corporation Limited, (iii) Tamil Nadu State Construction Corporation Limited and (iv) State Engineering and Servicing Company of Tamil Nadu Limited.

Impact of non-finalisation of accounts

1.13 As pointed out above (Para 1.10 to 1.12), 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 above state of arrears of accounts, the actual contribution of PSUs to the State GDP for the year 2015-16 could not be ascertained and their contribution to 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 would be monitored by the cell.
- The Government may consider outsourcing of the work relating to preparation of accounts, wherever the staff is inadequate or lacks expertise.

Peformance of PSUs as per their latest finalised accounts

1.14 The financial position and working results of working Government companies and Statutory Corporation are detailed in **Annexure-2**. A ratio of PSU turnover to State GDP shows the extent of PSU activities in the State economy. Table below provides the details of working PSUs turnover and State GDP for a period of five years ending 2015-16.

Table:1.7 Details of working PSUs turnover *vis-a-vis* State GDP

(₹ in crore)

Particulars	2011-12	2012-13	2013-14	2014-15	2015-16
Turnover[11]	65,804.92	70,673.64	83,455.28	87,083.36	99,850.38
State GDP	6,39,025	7,44,474	8,54,238	9,76,703	12,12,668
Percentage of turnover to State GDP	10.30	9.49	9.77	8.92	8.23

(Figures of State GDP for 2015-16 are advance estimates reset with base year as 2011-12).

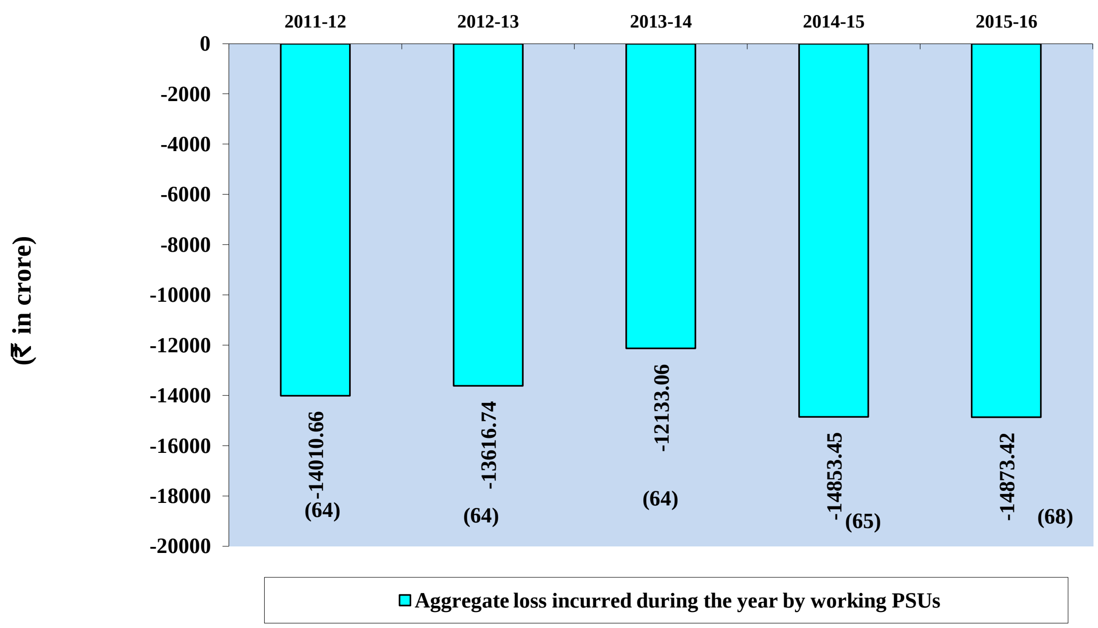
(Source: Details furnished by the companies and the data on GDP furnished by the Government)

Turnover of PSUs has increased continuously from 2011-12 to 2015-16 and increased by 51.74 *per cent* in 2015-16 as compared to 2011-12. The increase was contributed to the extent of 89.57 *per cent* by the PSUs of power and service sectors. Percentage of turnover of PSUs to State GDP decreased from 2011-12 to 2015-16.

1.15 Overall losses incurred by State working PSUs during 2011-12 to 2015-16, as per the latest finalised accounts are given below in bar chart.

[11] Turnover as per the latest finalised accounts as of 30 September 2016.

Chart: 1.4 Profit/Loss of working PSUs



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

Working PSUs of the State collectively incurred continuous losses from 2011-12 to 2015-16, which increased from ₹ 14,010.66 crore to ₹ 14,873.42 crore during the same period, though there is a marginal decrease in 2013-14 as compared to the previous years 2011-12 and 2012-13.

As per the latest finalised accounts, out of 68 working PSUs, 41 PSUs earned a profit of ₹ 811.27 crore and 21 PSUs incurred a loss of ₹ 15,684.69 crore. In respect of Tamil Nadu Civil Supplies Corporation, the entire deficit of income is compensated by the State Government in the form of subsidy. Three[12] companies neither earned profit nor incurred any loss. Two[13] companies formed during 2015-16 had not submitted their first accounts.

The accounts finalised as of 30 September 2016 indicate that major contributors to profit were Tamil Nadu Newsprint and Papers Limited (₹ 253.93 crore), Tamil Nadu Power Finance and Infrastructure Development Corporation Limited (₹ 108.42 crore), TIDEL Park Limited (₹ 42.14 crore), Tamil Nadu Industrial Investment Corporation Limited (₹ 34.98 crore) and Tamil Nadu Magnesite Limited (₹ 26.65 crore). Heavy losses were incurred by Tamil Nadu Generation and Distribution Corporation Limited (₹ 12,756.59 crore) and all the eight[14] State Transport Corporations (₹ 2,600.25 crore).

12 Serial Number 21, 26 and 45 of Annexure-2.
13 Serial Number 28 and 29 of Annexure-2.
14 Serial number 59 to 66 of Annexure-2.

1.16 Some other key parameters of PSUs are given below:

Table:1.8 Key parameters of State PSUs

(₹ in crore)

Particulars	2011-12	2012-13	2013-14	2014-15	2015-16
Return on capital employed[15] (*per cent*)	NIL	NIL	NIL	NIL	NIL
Debt	43,157.68	62,044.08	77,285.51	86,727.04	98,863.64
Turnover[16]	65,804.92	70,673.60	83,455.24	87,083.36	99,850.38
Debt/turnover ratio	0.66:1	0.88:1	0.93:1	0.99:1	0.99:1
Interest payments	5,808.14	6,649.97	7,840.67	9,830.89	11,920.21
Accumulated losses	59,636.87	38,233.61	50,826.43	65,725.89	80,925.82

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

(Source: Details furnished by the companies and latest finalised accounts of companies)

1.17 The State Government had formulated (May 2014) a dividend policy, under which all PSUs were required to pay a minimum return of 30 *per cent* of net profit after tax or 30 *per cent* of the paid-up share capital, whichever was higher, subject to availability of disposable profits. As per their latest finalised accounts as of 30 September 2016, 41 State PSUs had earned an aggregate profit of ₹ 811.27 crore and 17 PSUs declared a total dividend of ₹ 138.06 crore. Of this, major contributors of the dividend were Tamil Nadu Newsprint and Papers Limited (₹ 51.91 crore), Tamil Nadu Power Finance and Infrastructure Development Corporation Limited (₹ 32.52 crore) and TIDEL Park Limited (₹ 13.20 crore) aggregating to ₹ 97.63 crore, which worked out to 70.72 *per cent* of total dividend declared (₹ 138.06 crore) during the year 2015-16.

Audit analysis of payment of dividend by profit making PSUs revealed that, though some PSUs had disposable profits, they had either not declared dividend or declared dividend at rates lower than that stipulated by the State Government as detailed below:

Table:1.9 Declaration of dividend by PSUs at rates lower than that stipulated by the Government

(₹ in crore)

Sl.No.	Name of the Company	Dividend to be declared as per GO	Dividend actually declared	Reference to Serial Number in Annexure-2
1.	TIIC	10.49	3.86	5
2.	TAHDCO	1.11	NIL	8
3.	TABCEDCO	3.68	NIL	10
4.	TN Women Limited	1.31	NIL	11
5.	TUFIDCO	9.60	0.96	12
6.	TAMCO	1.65	NIL	13

15 NIL indicates that Return on Capital Employed was negative during those years.

16 Turnover of working PSUs as per the latest finalised accounts as of 30 September 2016.

Sl.No.	Name of the Company	Dividend to be declared as per GO	Dividend actually declared	Reference to Serial Number in Annexure-2
7.	IT Expressway	2.28	NIL	24
8.	TANSI	6.00	NIL	30
9.	TNPL	76.18	51.91	43
10.	TEXCO	3.61	NIL	58
11.	TANWARE	5.30	2.28	B-1

(Source: Latest finalised accounts of companies)

Winding up of non-working PSUs

1.18 There were 13 non-working PSUs as on 31 March 2012, which came down to six non-working PSUs as on 31 March 2016. Of these, one[17] PSU had commenced liquidation process and in respect of another PSU[18], merger orders were issued and its implementation was pending. The closure orders for remaining four[19] PSUs were issued but the liquidation process had not yet started.

Since the non-working PSUs were not contributing to the State economy and meeting the intended objectives, these PSUs may be considered either to be closed down or revived. During 2015-16, two non-working PSUs incurred an expenditure of ₹ 11.37 crore. This expenditure was met from the internal resources of these PSUs.

The process of voluntary winding up under the Companies Act is much faster and needs to be pursued vigorously. The Government may take a decision regarding winding up of six non-working PSUs.

Comments on accounts

1.19 56 working companies forwarded their 63 audited accounts to AG during the year 2015-16. Of these, 38 accounts of 35 companies were selected for supplementary audit. The audit reports of statutory auditors appointed by CAG and the supplementary audit of CAG indicated that the quality of maintenance of accounts was required to be improved substantially. The details of aggregate money value of comments of Statutory Auditors and CAG are given below:

[17] Tamil Nadu Goods Transport Corporation Limited.

[18] State Engineering and Servicing Company of Tamil Nadu Limited.

[19] Tamil Nadu Agro Industries Development Corporation Limited, Tamil Nadu Poultry Development Corporation Limited, Tamil Nadu State Construction Corporation Limited and Southern Structurals Limited.

Table:1.10 Impact of audit comments on working companies

(₹ in crore)

Sl. No.	Particulars	2013-14		2014-15		2015-16	
		No. of accounts	Amount	No. of accounts	Amount	No. of accounts	Amount
1.	Decrease in profit	7	106.59	9	170.29	13	192.80
2.	Increase in profit	4	326.32	---	---	3	1.94
3.	Increase in loss	14	10,674.85	14	11,207.08	12	7,544.38
4.	Decrease in loss	---	---	3	87.79	2	541.37
5.	Non-disclosure of material facts	2	2.25	1	44.94	---	---
6.	Errors of classification	2	246.03	8	101.50	3	35.49

(Source: Latest finalised annual accounts of companies)

During the year, the Statutory Auditors had given unqualified certificates for 32 accounts and qualified certificates for 31 accounts. The compliance of companies with the Accounting Standards remained poor, as there were 44 instances of non-compliance in 20 accounts during the year.

1.20 Similarly, Tamil Nadu Warehousing Corporation forwarded its accounts for 2014-15 to AG during the year 2015-16, for which supplementary audit was conducted. The Audit Reports of Statutory Auditors indicated that the quality of maintenance of accounts needed to be improved substantially. The details of aggregate money value of comments of Statutory Auditors and CAG are given below:

Table:1.11 Impact of audit comments on Tamil Nadu Warehousing Corporation

(₹ in crore)

Sl. No.	Particulars	2013-14		2014-15		2015-16	
		No. of accounts	Amount	No. of accounts	Amount	No. of accounts	Amount
1.	Decrease in profit	1	3.81	1	3.44	1	2.50

(Source: Latest finalised annual accounts of Tamil Nadu Warrehousing Corporation)

Response of the Government to Audit

Performance Audit and Paragraphs

1.21 For the Report of the CAG of India for the year ended 31 March 2016, one Performance Audit, one Follow-up audit and 13 audit paragraphs were issued to the Additional Chief Secretaries/Principal Secretaries of the respective Departments with request to furnish replies within six weeks. However, replies in respect of one Performance Audit and two compliance audit paragraphs were not received from the State Government (November 2016).

Follow-up action on Audit Reports

Replies outstanding

1.22 The Report of the CAG of India represents the culmination of the process of audit scrutiny. It is, therefore, necessary that they elicit appropriate and timely response from the executive. The Finance Department, Government of Tamil Nadu had issued (January 1991) instructions to all Administrative Departments to submit replies/explanatory notes to paragraphs/reviews included in the Audit Reports of the CAG of India within a period of two months of their presentation to the Legislature in the prescribed format without waiting for any questionaires from the Committee on Public Undertakings (COPU).

Table: 1.12 Explanatory notes not received (as on October 2016)

Year of the Audit Report	Date of placement of Audit Report in the State Legislature	Total Performance Audits (PAs) and Paragraphs in the Audit Report		Number of PAs/Paragraphs for which explanatory notes were not received	
		Performance Audit	Paragraphs	Performance Audit	Paragraphs
2008-09	14.05.2010	03	21	02	---
2010-11	16.05.2012	02	18	01	02
2011-12	15.05.2013	02	14	---	02
2012-13	12.08.2014	01	15	---	06
2013-14	29.09.2015	01	15	01	15
TOTAL		**09**	**83**	**04**	**25**

From the above, it could be seen that out of nine Performance Audits and 83 paragraphs, explanatory notes to four performance audits and 25 paragraphs in respect of seven departments, which were commented upon, were not received (October 2016).

Discussion of Audit Reports by COPU

1.23 The status as on 31 October 2016 of Performance Audits/paragraphs that appeared in Audit Reports (PSUs) and discussed by COPU was as under:

Table 1.13 Reviews/Paras appeared in Audit Reports *vis-a-vis* discussed as on 31 October 2016

Period of Audit Report	Number of PAs/paragraphs			
	Appeared in Audit Report		Paragraph Discussed	
	PAs	Paragraphs	PAs	Paragraphs
2003-04	04	20[20]	03	10
2006-07	04	23	03	23
2007-08	04	20	02	20
2008-09	03	21	01	20
2009-10	02	17	---	17
2010-11	02	18	---	02
2011-12	02	14	01	01
2012-13	01	15	---	01
2013-14	01	15	---	---
TOTAL	**23**	**163**	**10**	**94**

Compliance to Reports of COPU

1.24 As per the directions (1997) given by the Government, the Action Taken Notes (ATNs) on the COPU's recommendations were to be forwarded within six months from the date of placement of COPU's recommendations in the State Legislature. It was, however, noticed that ATNs in respect of 364 paragraphs pertaining to 63 Reports of the COPU presented to the State Legislature between April 2002 and March 2016 had not been received (October 2016) as indicated below:

Table 1.14: Compliance to COPU Reports

Year of the COPU Report	Total number of COPU Reports	Total number of recommendations in COPU Report	Number of recommendations where ATNs not received
2002-03	04	04	04
2003-04	01	04	04
2006-07	01	05	05
2009-10	03	24	24
2010-11	01	17	17
2011-12	03	15	15
2012-13	01	06	06
2013-14	14	72	72
2014-15	21	133	133
2015-16	14	84	84
TOTAL	**63**	**364**	**364**

[20] Out of 20 paras printed, only 10 paras were selected for discussion.

These Reports of COPU contained recommendations in respect of paragraphs pertaining to 13 Departments, which appeared in the Reports of CAG of India for the years 1992-93 to 2009-10.

It is recommended that the Government may ensure (a) sending replies to the Performance Audit Reports and Paragraphs, Explanatory Notes and ATNs on the recommendations of COPU as per the prescribed time schedule; (b) recovery of loss/outstanding advances/overpayments within the prescribed period; and (c) revamping of the system of responding to audit observations.

Coverage of this Report

1.25 This Report contains 13 paragraphs, one Performance Audit *i.e.*, on Industrial Development Activities of Tamil Nadu Industrial Investment Corporation Limited and one Follow-up IT audit on the Computerisation of Tamil Nadu State Marketing Corporation Limited involving financial effect of ₹ 526.82 crore.

Disinvestment, Restructuring and Privatisation of PSUs and any reforms in power sector

1.26 There was no disinvestment, privatisation or restructuring of PSUs in the State during the year.

Status of implementation of MOU between the State Government and the Central Government

1.27 The State Government formed Tamil Nadu Electricity Regulatory Commission (TNERC) in March 1999 under the Electricity Regulatory Commissions Act, 1998, with the objective of rationalisation of electricity tariff, for advising on matters relating to electricity generation, transmission and distribution in the State and issue of licences. CAG, who is the Auditor for TNERC, has issued Separate Audit Reports (SARs) upto 2014-15. The SARs upto 2013-14 have been placed in the State Legislature. During 2015-16, TNERC issued four tariff orders including Comprehensive Tarrif Orders on solar power, wind energy, bagasse based co-generation plants and bio-mass based power plants.

In pursuance of the decisions taken at the Chief Ministers' conference on Power Sector Reforms held in March 2001, a Memorandum of Understanding (MOU) was signed in January 2002 between the Ministry of Power, Government of India and the Department of Energy, Government of Tamil Nadu as a joint commitment for implementation of the reform programme in the power sector with identified milestones.

Commitments made in the MOU, except the following, have been achieved as reported by TANGEDCO:

Table:1.15 Non-achievement of commitments made in the MOU

	Commitment as per MOU	**Target completion schedule**	**Status (as on 31 March 2015)**
1.	Reduction of Transmission and Distribution losses to 15 *per cent*	December 2003	As per the provisional accounts of TANGEDCO for the year 2015-16, Transmission and Distribution losses worked out to 20.13 *per cent*. Similarly, as per provisional accounts of TANTRANSCO for 2015-16, the transmission loss was 4.11 *per cent*.
2.	100 *per cent* metering of all consumers	September 2012	All services except the agricultural and hut services have been metered. TNERC, in its order dated 11 July 2013, extended the time for fixing of individual meters in agricultural and hut services upto 31 March 2014. Meanwhile, TANGEDCO had approached the Government for issue of policy direction to the Commission. Since fixing of meters in agriculture and hut services is the policy decision to be taken by the Government of Tamil Nadu, response from the Government to TANGEDCO's proposal was still awaited (November 2016).
3.	Current operations in distribution to reach break-even	March 2003	As per the provisional accounts for 2015-16, TANGEDCO had incurred a loss of ₹ 5,786.82 crore and TANTRANSCO had incurred a loss of ₹ 263.40 crore.
4.	Energy audit at 11 KV sub-stations level	January 2002	Out of 1,603 feeders identified with loss of more than 10 *per cent*, the losses were brought down to below 10 *per cent* in 1,211 feeders by carrying out improvement works such as strengthening of conductors, segregation of feeders, establishment of new sub-stations, *etc*. The reduction of losses in the balance 392 feeders involves large capital works such as erection of sub-stations. Based on the methodology formulated by Rural Electrification Corporation (REC), 42 feeders (one from each Electricity Distribution Circle) where the distribution loss was very high have been identified for reduction of distribution loss. Action plan for reduction of losses by carrying out the improvement works is to be evolved by the concerned regions.

(Source: Details furnished by TANGEDCO)

CHAPTER-II

2.1 Performance Audit on Industrial Development Activities of Tamil Nadu Industrial Investment Corporation Limited

Executive Summary

Tamil Nadu Industrial Investment Corporation Limited (Company), is a deemed State Financial Corporation under the State Financial Corporation Act, 1951. Its share capital of ₹321 crore was contributed by Government of Tamil Nadu (GoTN) and Small Industries Development Bank of India (SIDBI) to the extent of 94.56 per cent and 5.30 per cent respectively. Audit took up the Performance Audit of this Company covering its activities from 2011-16 to evaluate the system for planning, mobilisation of funds, sanction and disbursement of loans, monitoring of the assisted units, recovery performance and effectiveness of internal control.

Planning

The Company did not prepare corporate plan setting up long term goals and strategy as directed (April 1989) by the GoTN. The annual plans also suffered due to fixation of adhoc targets, belated approval by the Board of Directors (BOD) etc.

Mobilisation of Funds

Short comings noticed in mobilisation of funds were (i) non receipt of equity from two State PSUs as committed by GoTN, (ii) lack of plan for disinvestment of shares from assisted units, which had market value of ₹173.87 crore and loss of ₹36.17 crore due to non availing of exit offers from three companies (iii) not floating the public bonds at the market rate of interest, resulting in additional interest commitment of ₹9.56 crore.

Sanction and disbursement of loan

Deficiencies in the sanctions included assistance to incapable promoters, sanction of loans inspite of non fulfillment of conditions, sanction to unviable projects, sanction with inadequate collateral securities, sanction based on unrealistic projection etc. These failures led to accumulation of overdues amounting to ₹47.44 crore in respect of 22 cases test checked.

Monitoring of assisted units

There was shortfall ranging between 10 and 53 per cent during 2011-16 in carrying out mandatory inspection of the assisted units. The deficient inspections led to accumulation of overdues amounting to ₹35.53 crore in 15 cases test checked. The Company also failed to obtain the audited financial statements and monthly stock statements from the assisted units as required.

Recovery performance

The Company fixed the targets for recovery ranging from 25 to 85 per cent of total dues during 2011-16, which were equivalent to or less than the current dues. Due to deficiencies in recovery, the Company could not recover ₹56.37 crore in 13 cases test checked.

Though the Company agreed with SIDBI to maintain Non Performing Assets (NPA) within 10 per cent, its NPA increased from 10.27 in 2011-12 to 13.64 per cent in 2015-16, resulting in non-accrual of internal source of funds to the extent of ₹83.23 crore.

During 2011-16, the Company took possession of 111 units out of 169 defaulting units. The shortfall in take-over of defaulting units indicated that the Company had exercised selective approach in take-over of the assets without any recorded justification.

The Company sold assets of 135 units in auction and realised ₹11.88 crore, which constituted only two per cent of the total outstanding amount of ₹677.35 crore in respect of these units.

Internal Control and Internal Audit

Out of the total of 42 Board meetings during 2011-16, the Directors representing MSME and Finance department were absent in 30/28 meetings. The contract for web centric solutions to be completed within two years of award (March 2011) remained incomplete even after five years. The Company had no internal audit manual and the audit committee did not review the internal audit functions.

Conclusion

The performance of the Company would have been better if it had drawn long term strategy plan, mobilised its resources economically and avoided deficiencies in sanctions, monitoring the assisted units and recovery of loans. These deficiencies found in the earlier Performance Audit continued despite COPU's recommendation to improve the system for sanction, disbursement and recovery of loan.

Recommendations

Drawing long-term corporate plan, evaluation of cost of borrowings from various sources to ensure economy, ensuring the viability of the project by independent assessment of the projections, ensuring strict adherence to the procedures for sanction and disbursement, continuously monitoring the assisted units, etc., are some of the Audit's recommendations.

Introduction

2.1.1 Tamil Nadu Industrial Investment Corporation Limited (Company), a deemed[21] State Financial Corporation (SFC), was formed in the year 1949. The Company's Share Capital (as on 31 March 2016) of ₹ 321 crore[22] was mainly contributed by the Government of Tamil Nadu (GoTN) and Small Industries Development Bank of India (SIDBI) at 94.56 *per cent* and 5.30 *per cent* respectively.

2.1.2 The Company, which has been mandated to render financial assistance to the industrial units within the State, extends term loan for setting up industrial units and their expansion, Working Capital Term Loan and discounting of bills. Besides, the Company is the implementing agency of the GoTN for disbursement of loan to sugar mills at concessional rates.

Organisational Setup

2.1.3 The Management of the Company is vested with a Board of Directors (BOD) comprising of 10 Directors including the Chairman and Managing Director (CMD), who is assisted by eight[23] functional heads. The Company's business is carried out through a network of six Regional Offices (ROs) headed by the Regional Managers and 25 Branch Offices (BO) in different places headed by Branch Managers.

Scope and Audit Methodology

2.1.4 The performance of the Company was last reviewed and included in the Report of the Comptroller and Auditor General of India (Commercial) for the year 2003-04 – Government of Tamil Nadu. In this review, Audit reported that loans were sanctioned in several cases despite adverse factors brought out in appraisal notes and without adhering to the terms and conditions of sanctions. The Committee on Public Undertakings (COPU), which discussed the review in December 2009, had recommended to the Company to take recovery action in respect of held up dues on account of deficient sanctions, disbursements and follow-up of loans.

The current Performance Audit (PA) of the Company was conducted between April and August 2016 covering its activities for the five years from 2011-12 to 2015-16 to assess the improvement in the system for sanction, disbursement and recovery of loans, monitoring of assisted units, possession and disposal of the assets taken over from the defaulted units in the light of the earlier Audit as well as COPU's recommendations.

The scope and objectives of the PA were shared with the management by way of an entry conference held on 13 June 2016. During the conduct of

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[21] As per Section 46 of the State Financial Corporation Act,1951 (SFC Act), the Central Government may notify any institution established by the State Government as deemed SFC which will derive powers as per the provisions of the SFC Act.

[22] The balance 0.14 *per cent* was contributed by Co-operative banks, Insurance Companies and Government of Puducherry

[23] Two General Managers, two Deputy General Managers, three Assistant General Managers and a Company Secretary.

Performance Audit, records of 10[24] out of 25 branches, three out of six Regional Offices and the Company's Corporate Office at Chennai were test checked. The draft PA report was forwarded to the GoTN/Company in October 2016 and the audit finding were discussed in an exit conference held on 14 November 2016 with the Principal Secretary to the GoTN, Industries Department and the CMD of the Company. The views expressed by the GoTN/Company in the exit conference as well as in the replies furnished (November 2016) by the Company have been considered and incorporated where ever found appropriate.

Audit Objectives

2.1.5 The objectives of the PA were to ascertain whether:

- the Company had framed long/short term plans for improving its overall performance.
- the Company had mobilised the required financial resources efficiently and economically.
- there was an efficient system in place for sanction and disbursement of loans.
- the Company had effectively monitored the assisted units for recovery of dues; and
- an effective internal control system, including internal audit, was in place to manage and improve upon mistakes/lapses.

Audit Criteria

2.1.6 The audit criteria adopted were:

- Provisions of the SFC Act, 1951, Micro Small Medium Enterprises (MSME) Act, 2006 and Companies Act, 1956 and 2013.
- Guidelines of Small Industries Development Bank of India (SIDBI)/Reserve Bank of India (RBI) and GoTN.
- Industrial policy of GoTN.
- Terms and Conditions of sanctions, disbursements and recovery of loan assistance.

Audit Findings

Audit findings are discussed below:

[24] Branch Offices at Chennai, Thiruvallur, Tambaram, Coimbatore, Kurichy, Pudukottai, Erode, Tiruppur, Vellore and Villupuram. The Branch offices as well as files for sanction of loans were selected based on stratified sampling method.

Planning

Long-term planning

2.1.7 The GoTN directed (April 1989) all PSUs to draw up corporate plan setting out goals and strategy for achieving their goals. The Company, however, did not prepare such a long term plan suggesting strategy for better performance. Thus, the Company had not only lacked long term strategy but also did not comply with the Government's directives.

The Company replied that it would explore performance oriented long term strategy as suggested by Audit.

Short-term planning

2.1.8 The Company prepared short term plans in the form of annual budgets. The budgets and the actuals of the Company for the five years ending 2015-16 are detailed in **Annexure-3**. Audit observed the following:

- Though annual budgets are to be finalised before the commencement of the financial year, the Company submitted the budgets to the BOD in the first quarter of each year during 2011-16 (except 2012-13), which forced it to achieve the target of 12 months in nine to ten months every year.
- Audit could not verify the rationale for fixing targets for sanctions, disbursements of loan. The Company neither offered any justification nor fixed any benchmarks for such targets.
- After approval of the budget, BOD did not review the actual performance and the reasons for variations to guide the Company for improving its performance. Instead, the BOD issued only a general advice to the Company to achieve the targets and to contain the NPAs.

The Company replied that the provisional targets were communicated to the branch offices from the very beginning of the financial year. However, Audit could not find such instructions to the branches in any of the financial years during 2011-16.

Mobilisation of funds

2.1.9 The financial position and working results of the Company for the five years upto 2015-16 are as given in **Annexure-4 and 5.**

The resource-mix used by the Company for disbursement of loans and repayments to financial institutions, during the five years upto 31 March 2016 are detailed in the following table:

Table 2.1.1 Mobilisation of funds

(₹ in crore)

Particulars	2011-12		2012-13		2013-14		2014-15		2015-16	
	Target	Actuals	Target	Actuals	Target	Actuals	Target	Actuals	Target	Actuals
Total Cash outflow	1280.41	1134.54	1416.32	1358.70	1577.10	1560.93	2034.16	1813.86	2184.17	1775.20
Resources:										

Particulars	2011-12		2012-13		2013-14		2014-15		2015-16	
	Target	Actuals	Target	Actuals	Target	Actuals	Target	Actuals	Target	Actuals
Share capital/Ways and means	---	---	---	---	---	37.50	---	---	---	---
Refinance/ Borrowings	375.00	164.57	240.00	146.65	209.00	105.76	250.00	182.65	220.00	200.80
Bonds	---	---	150.00	---	150.00	150.00	200.00	---	200.00	---
Call Deposits	45.00	81.88	150.00	188.52	230.00	128.50	250.00	245.60	255.00	105.22
Plough back	860.41	888.09	876.32	1023.53	988.10	1139.17	1334.16	1385.61	1509.17	1469.18
TOTAL	1280.41	1134.54	1416.32	1358.70	1577.10	1560.93	2034.16	1813.86	2184.17	1775.20

Source: Data collected from annual accounts of the Company.

From the table, it could be seen that the Company resorted to borrowings ranging from ₹ 246.45 crore (₹ 164.57 crore *plus* ₹ 81.88 crore) and ₹ 306.02 crore (₹ 200.80 crore *plus* ₹ 105.22 crore) in 2011-16, which entailed additional burden of interest payments. The deficiencies noticed in mobilisation of funds are discussed below:

Non-receipt of capital contributions

2.1.10 The Company requested (June 2015) to the Government, to release capital of ₹ 200 crore to strengthen its capital base. Audit noticed that though the Government had concurred (September 2015) to give such share capital assistance through two PSUs, *viz*., State Industries Promotion Corporation of Tamil Nadu Limited (SIPCOT) and Tamil Nadu Industrial Development Corporation Limited (TIDCO), the assistance was not received by the Company as the modalities of release of the share capital assistance by these two PSUs was not finalised by the Government till date (November 2016). Consequently, the Company continued to avail loan from banks resulting in extra interest burden of ₹ 4.83 crore[25].

Blocking up of funds in investments

2.1.11 The Company held investments valuing ₹ 53.99 crore in 53 companies as on March 2016. A review of the investments by Audit revealed that:

- Though the State Government had issued (April 1990) instructions to the PSUs to review the investments in assisted companies after three years of their investments, the investments were held by the Company without any time limit and the vintage of this investment ranged way back from 1960 to 1998.
- The book value of investment of ₹ 4.57 crore in 29 companies had become "NIL" as on 31 March 2016 due to poor performance of the companies.
- The Company failed to review possible disinvestments of its shares in 21 companies which had higher market value (₹ 173.87 crore) than book value of ₹ 48.64 crore.
- The monetary limit fixed (May 1988) by the Government for taking disinvestment decisions by the Company was only ₹ 50 lakh. When the

[25] Interest calculated at the rate of 9.66 *per cent* being the average cost of capital for the year 2015-16.

Company received (between December 2007 and June 2011) offers from three promoters for buyback of the shares (with monetary value above ₹ 50 lakh), it could not decide on these offers and referred (between November 2010 and May 2014) the matter to the Government for its decisions, which was not received till date (October 2016). Consequently, it lost potential revenue of ₹ 36.17 crore.[26]

The Principal Secretary stated in the exit conference that the recommendations given by the Committee formed in 2012 by the Government were under consideration.

Mobilisation of funds from issue of bonds

2.1.12 Based on the Government's approval (October 2012) to issue Bonds to public with repayment guaranteed by it, the Company issued (January/Feburary 2014) bonds for a value of ₹ 150 crore with effective cost of borrowings at 9.85 *per cent per annum.*

Audit observed that before arranging for mobilisation of bonds, the Company did not compare the rates of interest offered with the rates of similar credit rated organisations. Audit verification revealed that during June 2013/October 2014, Kerala Financial Corporation (KFC) which had similar credit rating had issued bonds at the rate of 9.15 *per cent per annum*. Due to issue of bonds with interest rates more than the prevailing market rates, the Company had to bear avoidable commitment of ₹ 9.56 crore towards interest on bond.

The Company replied that the interest rates are dependent on many factors like quantum of issue, maturity period, rating of guarantor *etc*. The reply was not convincing because KFC and the Company had same credit rating, but KFC was able to obtain public bonds at a cheaper rate of interest.

Borrowings from banks

2.1.13 The Company had been operating its activities through five[27] principal bankers. The Company requested (June 2010) all the banks to consider sanction of loan at a fixed rate of seven *per cent per annum* with a repayment period of seven years. None of the banks accepted the above condition. The CMD in the second instance approached (August 2010) only Indian Bank for sanction a loan of ₹ 200 crore without indicating the acceptable rate of interest. Indian Bank offered the loan at *nine per cent per annum*, which was availed by the Company between September 2010 and March 2011.

In this connection, Audit observed that the Company did not approach the Government for obtaining guarantee for term loan from banks as was done in respect of the public deposit and bonds. This would have enabled the Company to obtain loan from any of the banks based on Government guarantee. A comparison of the interest rates of State Bank of India (SBI) with that of the Indian Bank for the three years upto 2013-14 revealed that SBI's interest rate (eight *per cent*) was cheaper than the rate of Indian Bank (nine *per*

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[26] Madras Aluminum Company Ltd -₹ 18.42 crore, Chettinad Cement Corporation Ltd - ₹ 17.50 crore and India Forge and Drop Stamping Ltd -₹ 0.25 crore

[27] Indian Bank, Indian Overseas Bank, State Bank of India, Canara Bank and Union Bank of India.

cent). However, the Company could not obtain the loan at a competitive rate resulting in avoidable extra interest of ₹ 4.75 crore, for the period from September 2010 to March 2016.

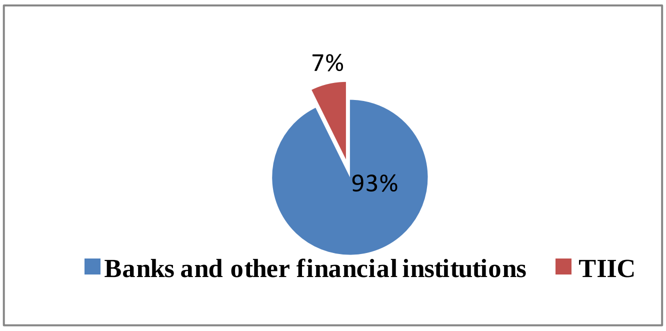
The Company replied that SBI was not willing to sanction loans with a repayment period of seven years. The reply was not convincing because Company neither approached Government for its guarantee nor tried to get loan with a lesser repayment period from SBI to obtain the loan at a cheaper rate.

Sanction and disbursement of loan

Role of the Company in MSME sector

2.1.14 The State Level Bankers' Committee (SLBC)[28], Tamil Nadu reported (April 2016) that total outstanding advances provided to the MSME sector as on March 2016 by banks and other financial institutions amounted to ₹ 63,372.75 crore against which the outstanding loan assistance provided by the Company was ₹ 4,975.80 crore. The diagram below shows the share of the Company's assistance to the MSME sector.

Role of the Company in MSME sector



The market share of assistance to MSME sector by the Company was meagre (7 *per cent*) compared to the assistance provided by the banks and SIDBI. The reasons for marginal role of the Company were as under:

- The Company is having 25 branches spread throughout the State. But, upto 48 *per cent* of the beneficiaries were covered only by four[29] branches and the individual coverage by other 21 branches was less than five *per cent* during 2011-2016. Thus, the coverage of loan assistance to the beneficiaries was not wide spread throughout the State because the sanction of loan was made by four out of 25 branches.
- The Government sanctioned (September 2012) three *per cent* interest subsidy from 2012-13 onwards to the Company to facilitate competitive

[28] A committee formed by RBI in the year 1969 to ensure co-ordination between the State Government and Banks on the matters pertaining to banking development within the State.

[29] Chennai, Thiruvallur, Kancheepuram and Coimbatore.

business. But the Company's lending rates ranging from 10.5 to 11.5 *per cent*[30] were not competitive compared to the lending rates of commercial banks, which ranged between 8.5 and 11 *per cent* during the period 2011-2016. Consequently, the Company could not substantially provide loan assistance for the industrial units of MSME sector.

- Out of 697 sanctioned loans test checked by Audit, 270 (38.7 *per cent*) loans were sanctioned with delays ranging from 50 to 200 days against the time limit of 35 days. This was attributable to procedural delays as the Company registers the application of the loanees only after ensuring that the application was received in complete shape with required enclosures.

Procedure for giving financial assistance

2.1.15 The Company provides financial assistance for setting up of new industrial units as well as for expansion of MSME units. After receipt of the application, the Company conducts technical and financial appraisals and sanctions the loan after verifying the genuineness and adequacy of securities provided by the borrower.

Sanction of loan

2.1.16 The details of achievement against targets for sanction of loan fixed by the Company for the last five years upto 2015-16 were as under:

Table-2.1.2 Sanction and disbursement of loan

(₹ in crore)

Year	Sanction of Loan				Disbur-sement	Shortfall with reference to Sanction	Percentage of shortfall of disbursement to Sanction
	Target	Achieve-ment	Short-fall	Per cent			
1	**2**	**3**	**4=2-3**	**5=4/2*100**	**6**	**7=3-6**	**8=7/3*100**
2011-12	1350	768.25	581.75	43.09	702.94	65.31	8.50
2012-13	1025	954.89	70.11	6.84	790.19	164.70	17.25
2013-14	1165	1207.75	-42.75	-3.67	1021.66	186.09	15.41
2014-15	1600	1436.13	163.87	10.24	1220.18	215.95	15.04
2015-16	1800	1448.70	351.30	19.52	1240.83	207.87	14.35
Total	**6940**	**5815.72**	**1124.28**		**4975.80**		

Source: Data furnished by the Company

Note : The variations between actual sanction and disbursement of loans for all the five years were due to release of disbursements in subsequent year and cancellation/ withdrawal of loans.

Audit observed that the Company was not able to achieve its target in four out of five years. The shortfall was high in 2011-12 which was due to upward revision (129 *per cent* of the proposed level) of the target by the BOD. Further, there was wide variation between the actual sanction and disbursement ranging from 8.50 to 17.25 *per cent*. However, the Company had not analysed the reasons for drop out of beneficiaries after sanction of loan.

[30] After factoring the interest subsidy of three *per cent* allowable to the prompt paying loanees.

Irregularities in sanction of loans

2.1.17 The credit manual of the Company stipulated that the Company has to insist on furnishing of documents such as project report, audited financial statements, market tie-up letter, arrangement letters for working capital from the commercial banks, IT and wealth tax returns by the promoter, *etc.*, before and after sanction of loans. Audit examined the records relating to 697 out of 7,906 assisted units during the test check of 10 branch offices. The Audit examination revealed that there were inadequate pre-sanction appraisal or post sanction failures as summarised below:

Table-2.1.3 Deficiencies in pre-sanction and post sanction appraisals

Sl.No.		No. of units
A	**Procedural deficiencies in pre-sanction stage**	
(i)	Not insisting Project reports along with applications/Acceptance of Project Reports without critical study	256
(ii)	Not insisting audited financial statements of applicant units	157
(iii)	Not insisting audited financial statements of Associated units	69
B.	**Procedural deficiencies in Post sanction stage**	
(i)	Non-verification of assets	72
(ii)	Collateral Security Inflated	22
(iii)	Inadequacy of working capital	135
(iv)	Non insisting of IT/ Wealth Tax returns	317
(v)	Non verification of compliance with statutory provisions/regulations	192

Source: Audit observation based on check list furnished by the Company

Audit observed that inspite of the recommendation of the COPU in December 2009 to adhere to the laid down procedures for sanction and disbursement of loans, the Company deviated from the procedures for sanction which resulted in upsurge in NPAs and 14 such cases involving total overdue amount of ₹ 7.79 crore are given in **Annexure-6.**

The Company replied that loan application itself was structured in a manner to collect all the information required for project appraisals. The reply was not tenable because the credit manual of the Company demanded furnishing of separate documents in support of the data furnished in the loan applications. But, the same was not insisted by the branch offices of the Company in the instant cases noticed by Audit.

Sanction of loan to incapable promoters

2.1.18 As per the credit manual, the Company was required to disburse the loan after ensuring that the assisted units had actually arranged/brought in their portion of working capital. A case of violation of this provision is given below:

M/s Mahan Textiles (Private) Limited (MTPL) proposed to set up a knitted fabrics unit at a project cost of ₹ 26.30 crore. The project cost was to be met by term loan from the Company (₹ 12 crore), promoters contribution including working capital loan from bank (₹ 9.30 crore), loan from SIDBI (₹ 5 crore[31]). The loan amount of ₹ 11.94 crore was disbursed in August 2008/September 2009. As per the project report, the unit was to commence the commercial production in January 2009. But the commercial production started only in October 2010. Even after commercial production, the unit suffered due to inadequate working capital, as the promoter failed to contribute their capital and working capital loan from bank. Therefore, the Company allowed (July 2010) rescheduling of the loan upto October 2011. As MTPL paid (July 2012) only ₹ 38.87 lakh as against total overdue of ₹ 1.98 crore, the Company foreclosed (September 2012) the loan account. The Company took over the assets only in January 2014, *i.e.*, after a delay of 15 months, but the same were not disposed off till date (October 2016) due to lack of response in the auction. The total overdue amount in October 2016 was ₹ 23.04 crore (principal: ₹ 11.64 crore and interest: ₹ 11.40 crore).

Audit observed that the Company failed to take note of inadequate capital contribution made by the promoter and non-availability of working capital as required in the credit manual, but disbursed the major portion of the loan of ₹ 11.37 crore in July 2010 itself *i.e*., prior to the date of project implementation, which resulted in non-recovery of the overdues forcing the Company to write off the dues in 2015-16.

The Company replied that the failure of project was due to power cuts and problems relating to pollution and that it was taking steps for recovery of the dues. The reply was not convincing because project failed mainly due to inability of the promoter to bring in the required working capital, which the Company failed to take note of before release of the loan.

Sanction of loan despite non fulfillment of conditions

2.1.19 As per the credit manual, the Company has to ensure that the amount already disbursed was actually utilised by the loanee for the intended purpose before releasing subsequent instalments, which was not followed in the case detailed below:

The Company sanctioned and disbursed three[32] term loans amounting to ₹ 18.02 crore to Amaravathi Sri Venkateswara Paper Mills Limited (Amaravathi). These loans were disbursed for following purposes:

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[31] Against the sanction, SIDBI disbursed ₹ 4.90 crore.

[32] First loan of ₹ 5.70 crore in June 2007, the second loan of ₹ 6.50 crore in January 2010 and the third loan of ₹ 5.82 crore in January 2011.

Loan No	Month of disbursement	Amount (₹ in crore)	Purpose
1.	November 2007	5.70	Import of second hand de-inking machinery.
2.	March 2010	6.50	Takeover of loan given by India Overseas Bank for expansion of the plant capacity.
3.	November 2011	5.82	Construction of a factory building and erection of machinery.
	Total	**18.02**	

The assisted unit defaulted in repayments from 2013-14 onwards due to operational loss and non-implementation of the expansion unit and consequently, the amount overdue as on April 2016 was ₹ 4.80 crore including the interest overdue of ₹ 1.49 crore. As the loanee became defaulter, loan was classified as NPA. However, the Company was yet (October 2016) to takeover the assets of the defaulted unit.

Audit observed that the expansion program was not implemented by the loanee and imported machinery was kept in open yard. Consequently, Indian Overseas Bank (IOB), which initially funded the project foreclosed its loan, citing that the assisted units had delayed the implementation of the expansion programme. But, the Company took over the loan from IOB, which was not warranted because the promoter had not implemented the expansion programme. The Company also paid the third loan for construction of factory building despite being aware of the fact as a result of a joint inspection carried out with another PSU in January 2011, that the loanee had not utilised the loan of ₹ 6.50 crore paid for erecting the plant and machinery in the expanded unit. Thus, the loanee had not utilised the loan disbursed by the Company for erection of machinery and construction of the factory and continued to keep the machinery idle in the open yard. The Company failed to ensure that the loan disbursed was utilised by the loanee for the intended purpose, which led to the loan becoming NPA but the Company had not fixed any responsibility on the erring officials.

The Company replied that failure of the project was due to slow down of the market condition. But, the Company's reply was silent about Audit points about sanction of loan on unjustified grounds.

Sanction of loan to an unviable project

2.1.20 As stipulated in the credit manual, the Company has to independently verify the viability of the project and ensure the capability of the promoters.

The Company sanctioned (October 2008) a term loan of ₹ 2.00 crore to M/s Prapanjas for establishment of a resort at a location 23 Kms away from Madurai city. After disbursing (December 2008) ₹ 1.96 crore, the Company sanctioned and disbursed (September 2010) additional term loan of ₹ 2.55 crore for construction of building and purchase of machinery. The Company also granted (September 2010) a moratorium of four years against the normal moratorium of two years. Due to low occupancy, the assisted unit did not repay any amount towards principal from January 2013 till date.

Consequently, the total overdues increased to ₹ 7.32 crore (principal: ₹ 4.42 crore and interest: ₹ 2.90 crore). The loan was foreclosed in February 2016.

Audit observed that the Company failed to take note of the locational disadvantage of the project. The Company also failed to note that the promoter did not have business tie-up with tourist agents, travel companies, *etc*., but relied on the projected occupancy of 70 *per cent* from the third year of business operation. It is pertinent to note that two hotels belonging to a State PSU and located within Madurai had occupancy upto 50 *per cent* only. Further, the partners of the firm had no previous experience in the hotel industry. Thus, extension of loan to inexperienced promoter without assessing the market scenario and locational disadvantage led to non-recovery of ₹ 7.32 crore.

The Company replied that legal action has been initiated for recovery of dues.

Sanction of loan without justification

2.1.21 The Company sanctioned and disbursed (February/March 2013) a term loan of ₹ 1.93 crore to Sri Periyandavar Exports (SPE) for purchase of imported machinery for expansion of its capacity of manufacturing of cotton/knitted gloves. The Company was not regular in repayment of principal and interest from February 2015 onwards and the total overdue amount increased to ₹ 79.83 lakh in May 2016 (principal: ₹ 47.90 lakh and interest: ₹ 31.93 lakh).

Audit observed that:

- The existing capacity utilisation of the loanee was 61 *per cent* but the Company extended financial assistance for additional machinery without considering the spare capacity available.
- The Company failed to notice that the promoter had not arranged for working capital requirement amounting to ₹ 1.15 crore for the proposed expansion of the unit.
- The Company's branch office at Tambaram found during inspection (January 2015) that 17 stitching machines hypothecated to the Company were missing. But, the same branch office disbursed additional loan of ₹ 32.47 lakh in February 2015, which was irregular.

Thus, deficient sanction of loan without verification of spare capacity and working capital arrangement coupled with undue favour extended to the loanee at the branch office level led to accumulation of overdue of ₹ 79.83 lakh as on May 2016. None of the officials were held responsible for these serious lapses.

The Company replied that the project failed due to non-receipt of dues from foreign customers by the loanee. The reply was not tenable because the loan for expansion of the unit was given when the existing unit was operating with lesser capacity and subsequent disbursement was made despite missing machinery. The non-recovery of the loan was mainly due to these reasons and not due to the reasons stated by the Company.

Sanction of loan against inadequate collateral security

2.1.22 The Company sanctioned (July 2013) a term loan of ₹ 6.50 crore and disbursed (November 2013) ₹ 6.44 crore to Real Links Engineering India Private Limited (RLE), for setting up a new steel foundry in Coimbatore at a cost of ₹ 9.78 crore. Based on the loanee's request (November 2014), the repayment of the loan was postponed to commence from July 2015 and was to be completed by June 2022. Prior to rescheduling, the assisted unit paid meagre amount of ₹ 8.24 lakh upto July 2015, but started defaulting from August 2015 onwards. The loan extended to RLE became NPA in May 2016 with total overdue of ₹ 1.22 crore.

Audit observed that:

- Against the norm of obtaining 50 *per cent* of the loan amount as collateral security (₹ 3.25 crore), the Company obtained collateral security of ₹ 1.83 crore from RLE. Neither the justification for obtaining lesser security was available in the files, nor the Company fixed responsibility for the lapse.
- The BOD ignored the comments (July 2013) of the Chief Risk Officer (CRO) of the Company regarding the slow growth in foundry business in the State and the inability of the unit to arrange for working capital assistance from the banks for additional loan of ₹ 3.27 crore.

The Company replied that the sudden decline in the business was not expected at the time of sanction. The reply was not tenable because the associated risk in the foundry business was known to the Company from the remarks of CRO, but the loan was sanctioned ignoring the remarks of the CRO resulting in doubtful recovery of dues.

Sanction based on unrealistic projection

2.1.23 Mobest Associates (MA), a proprietary concern, was engaged in the manufacture of modular furniture items in Chennai since 2000. The Company sanctioned (July 2012) and disbursed (between July 2012 and January 2013) a term loan of ₹ 52 lakh for expansion of the furniture unit. Since the unit defaulted in repayment of loan from June 2014, the Company foreclosed loan in December 2014. The overdue amount loan was ₹ 69.57 lakh as on May 2016. The Company was yet (October 2016) to take physical possession of the primary and collateral security.

Audit observed that against the existing turnover of ₹ 0.96 crore for the year 2011-12, the turnover projected by the promoter was ₹ 3.52 crore for the year 2012-13. This projection was unrealistic because the promoter had achieved cumulative increase of only 40 *per cent* in the turnover in the last four years upto 2011-12. Therefore, sanction of loan on the basis of unrealistic projections with sudden increase in the turnover to the extent of 367 *per cent* within a year without any concrete evidence led to non-recovery of the dues.

The Company replied that they have decided to take possession of the unit.

2.1.24 The Company sanctioned and disbursed three[33] Working Capital Term Loans (WCTL) amounting to ₹ 1.04 crore to Andavar Modern Rice Mill (AMR) at Villupuram for building up of inventory. Immediately after disbursement of the third loan, AMR started (November 2011) to default in payment of dues and total overdue from AMR stood at ₹ 1 crore in June 2016.

Similarly, the Company disbursed (May/June 2011) WCTL of ₹ 50 lakh to Sri Panduranga Modern Rice Mill (PMR), Gingee. Since the loanee did not repay the loan from November 2011 onwards due to mismanagement of the unit by the promoter, the overdue increased to ₹ 77.38 lakh in June 2016. However, the Company was yet to takeover the defaulted unit.

Audit observed that the branch office failed to analyse the financial statements submitted by AMR and PMR before sanction of WCTL. This was evident from the fact that the cash profits of AMR were only ₹ 3.96 lakh, ₹ 3.29 lakh and ₹ 3.57 lakh in 2007-08, 2008-09 and 2009-10 respectively, but the loan was sanctioned, accepting the projected profit of ₹ 39.03 lakh, ₹ 43.65 lakh and ₹ 48.29 lakh in the first three years of operation after availing WCTL of ₹ 50 lakh in August 2010. The incorrect projection was proved by the fact that the unit earned only ₹ 4.86 lakh for 2010-11. The branch office had also not collected the financial statements for the subsequent years from 2011-12 till date.

Similarly, the financial statements furnished by PMR indicated its operating profit between ₹ 5.68 lakh and ₹ 6.70 lakh during the three years upto 2010-11. But, the branch office relied on the projections of operating profit ranging from ₹ 48.37 lakh to ₹ 60.59 lakh for three years upto 2013-14 without any evidence.

These actions were violative of the directions issued by the Company to the branch offices to independently verify the projections made by the loanee regarding viability of the project. Thus, sanction of loan by the branch office relying upon inflated estimates of profit and failure to take cognizance of the actual profit, resulted in non-recovery of ₹ 1.77 crore. The Company had not fixed any responsibility for these lapses.

The Company replied that AMR had approached the High Court, Chennai restraining its legal action. In respect of PMR, it stated that despite conducting two auctions after takeover of the assets, there were no offers. But, the reply was silent on failures of the branch offices as observed by Audit.

Non-disbursement of Government assistance

2.1.25 The Company was appointed (August 2004) as a nodal agency to provide loan assistance to sugar mills. The GoTN extended (August 2004/February 2005) loan of ₹ 113.67 crore and credited the same in the non-interest bearing RBI's public deposit account (PD Account) in the name of the Company. Out of this amount, the Company released (April 2005) only ₹ 31.00 crore to a sugar mill and the remaining balance (₹ 82.67 crore) was kept in the PD account till 2012 as the Company could not find other sugar mills, which were in need of loan between 2005-2012. Even though the

[33] First loan of ₹ 50 lakh was disbursed in August 2010, second loan of ₹ 19 lakh was disbursed in January 2011 and third loan of ₹ 35 lakh was disbursed in October 2011.

idleness of the amount in PD account was pointed out in the Audit Report (Civil) for the year 2007-08, the Company remitted back the amount to GoTN only in October 2012. Due to blocking of funds from April 2005 to October 2012 by the Company, there was avoidable interest burden to the Government to the extent of ₹ 30.62 crore.[34]

The Company replied that the delay in remitting of amount to GoTN was due to lack of directions from the Government about utilisation of the balance amount. The reply was not convincing because idleness of the amount was known to the Company and the Government from April 2005 to October 2012. But, they did not take action in a timely manner for surrender of the unspent amount resulting in loss of interest.

Monitoring of assisted units

2.1.26 As per the Company's Manual on Credit Management and Recovery, the Company was required to carry out inspection of all the assisted units on quarterly basis. The details of inspections carried out during 2011-16 are tabulated below:

Table-2.1.4 Short fall in inspection of assisted units

Sl. No	Details	2011-12	2012-13	2013-14	2014-15	2015-16
1	Total number of units	826	974	868	983	1062
2	Total number of units inspected during the year	619	855	411	582	955
3	Shortfall in inspection (Units)	207	119	457	401	107
4	Shortfall in inspection (Percentage)	25.06	12.21	52.64	40.79	10.07

Source: Data furnished by the Company

The number of units not inspected ranging between 107 in 2015-16 and 457 in 2013-14 indicated that the Company failed to carry out the mandatory inspection. The other deficiencies noticed in monitoring of the units are detailed below:

- The audited financial statements of borrower concerns/associate concerns were not obtained within six months of the closure of every financial year as required by terms of sanction in all 697 cases test checked by Audit during inspection of ten selected branch offices.
- The 697 loans test checked by Audit included 133 cases of Working Capital Term Loan (WCTL) sanctioned by the Company. The terms and conditions of WCTL stipulated that loanees had to submit monthly stock statements to the Company which would ensure that the loan was utilised only for Working Capital requirements. However, Audit noticed after disbursement of WCTL in all 133 cases, the monthly stock statements

[34] Calculated at the borrowing rate of 5.7 *per cent per annum* for six years and six months.

were not received as the Company failed to insist upon submission of stock statement from the loanees.

- The deficiencies mentioned above were against the COPU's recommendation to evaluate a system to obtain the periodical reports to assess the performance of the assisted units.

Though, the Company replied that the branch office inspected the units regularly, Audit could not verify that inspections were carried out regularly in respect of cases test checked in branch office.

The implications of deficiencies in monitoring the defaulted units are illustrated in the following cases:

2.1.27 The Company sanctioned and disbursed (between October 2005 and September 2006) a term loan of ₹ 19.37 crore to Srinidhi Fabrics Private Limited (SFPL) engaged in weaving business for expansion of its activity to bleaching, dyeing and printing of woven fabrics. After availing these loans, the borrower continued to incur losses from 2008-09 onwards due to problems related to effluent discharge and TNPCB's orders for closure of the unit upto June 2009. Consequently, the loanee did not clear the dues even after rescheduling of the loan in January 2009. Finally, the Company foreclosed the loan in February 2012, but SFPL registered (September 2012) its case with Board for Industrial and Financial Reconstruction (BIFR)[35]. As on June 2016, total overdue amount was ₹ 28.47 crore, which included principal and interest.

Audit observed that:

- Despite the borrower failing to repay the loans as per its commitment since May 2010, the Company permitted (April 2011) to sell part of the business unit without proper study on the capability of the promoter to repay the loan with reduced business prospects. Coupled with this, the delay in takeover of the defaulted unit allowed the borrower to make a reference to BIFR in July 2012 with an accumulated loss of ₹ 14.11 crore that eroded its net worth. Thus, non-compliance with proper recovery action led to non-recovery of ₹ 28.47 crore (principal overdue of ₹ 13.82 crore and interest overdue of ₹ 14.65 crore).

The Company replied that the overdue amount could not be recovered because the loanee unit was referred to BIFR in July 2012. The reply was not tenable because after TNPCB's order for closure of unit in June 2009, the loan was foreclosed only in February 2012 and there was no further action for takeover of assets till July 2012 which allowed the loanee to make reference to BIFR.

2.1.28 The Company extended five term loans and a WCTL aggregating to ₹ 1.33 crore to Sri Elumalayan Rice Mill (SERM) between October 2009 and August 2011. SERM started defaulting payment of dues from March 2012 onwards and loanee unit became defunct since May 2014. The Pudukottai Branch office of the Company inspected the unit in March 2015 and found that major machinery worth ₹ 34.40 lakh financed by it was missing.

[35] Board for Industrial and Financial Reconstruction (BIFR) is an authority formed by Ministry of Finance , GoI to declare any industrial unit as a sick industrial unit as per Sick Industrial Companies (Special Provisions) Act,1985 and offer rehabilitation packages for revival of sick Industrial units.

Therefore, the Company filed (June 2015) a criminal complaint for the missing machinery and initiated possession of the collateral properties.

Audit observed that though the manual prescribed that Branch office was to inspect defunct unit on monthly basis, the Company neither took possession of the machinery nor inspected the defunct unit as prescribed to ensure availability of the assets. The total overdues from SERM stood (July 2016) at ₹ 1.35 crore including principal of ₹ 86.59 lakh. Thus, lack of inspection allowed the loanee to remove the machinery resulting in non-recovery of the overdues.

2.1.29 The Company disbursed (January and August 2011) a term loan and WCTL amounting to ₹ 1.03 crore to an existing loanee *viz*., Southern Rubber and Company (SRC), Vellore. The borrower started defaulting in payment of dues of total loan (including earlier loan) from April 2012 onwards. The borrower submitted (October 2012) financial statements for the years 2010-11 and 2011-12 with a request for rescheduling of loans. From these financial statements, Audit observed that the promoters had withdrawn ₹ 56.88 lakh from the business after sanction of the loan in January 2011. However, the Company while rescheduling (November 2012) the loan, failed to take notice of this withdrawal. The total overdue from SRC stood (May 2016) at ₹ 2.02 crore which included principal of ₹ 1.28 crore. Such a situation could have been avoided with proper review of the financial statements of the unit which was not done by the Company.

The Company replied that withdrawal of capital was generally permitted when there were no outstanding dues. The reply was not convincing because the withdrawal of ₹ 56.88 lakh during 2010-11 by the partners was main reason for the unit becoming NPA which the Company failed to notice while examining loanee's financial statements.

In addition to the above, Audit found deficiencies in monitoring by the Company in 12 cases involving an overdue amount of ₹ 3.69 crore, as detailed in **Annexure-7.**

Recovery performance

2.1.30 Recovery of loans and advances at optimum levels provides funds for furtherance of business of a financial Company. The Recovery performance of the Company during the years 2011-12 to 2015-16 is given in **Annexure-8.**

Audit observed that the Company had fixed target equivalent to/or less than the current year's due in all the five years upto 2015-16. Moreover, no separate targets for recovery of old and current dues were fixed. In the absence of details of recovery of overdue and current demand, the Company did not have control on recovery of overdue amount.

The Company replied that recovery targets are fixed on case to case basis. The fact, however, remains that the targets were not equal even to the current year's dues and hence, was not adequate.

Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) was a scheme jointly initiated (2000) by the GoI and SIDBI to provide guarantees in respect of credit extended to MSME entrepreneurs. The Company which availed guarantee facility under this scheme was required to lodge its claim for reimbursement within one year from date of NPA. Audit noticed that the Company made a claim between June 2012 and March 2016 with CGTMSE for reimbursement of the NPA amounting to ₹ 6.85 crore in respect of 665 defaulted cases. However, these claims were disallowed by CGTMSE stating that the claims were time barred. In this connection, Audit observed that the delay was mainly attributable to the Company's failure to collect the details from the branches in respect of the cases, which had become NPA within the period of one year. Consequently, it lost an opportunity of getting reimbursement of the NPA amounting to ₹ 6.85 crore in respect of these cases.

The Company replied that the branches had been advised to explore the possibility of recovering the claims, which were rejected by CGTMSE from the loanees, who had defaulted the payments in respect of the cases. The reply was not tenable because these loans had already been NPA and the Company had lost an opportunity of recovering this amount from the CGTMSE because of its failure to adhere to the time limit.

In respect of 13 cases involving ₹ 56.37 crore, the recovery was not made due to deficiencies in the recovery system of the Company as detailed in **Annexure-9.**

Non-performing assets

2.1.31 In terms of SIDBI guidelines of November 2005 as modified from time to time, an asset becomes a NPA, when it ceases to generate income for the Company or the interest remained due for a period exceeding 90 days. The following table gives the details of NPA as at the end of last five years.

Table-2.1.5 Details of standard and non-performing assets

(₹ in crore)

Sl. No	Type of assets	2011-12	2012-13	2013-14	2014-15	2015-16
1	Total asset/loan balance	1,392,98	1,458.35	1,555.27	1,660.59	1,729.55
2	LESS: Standard assets	1,300.08	1,327.13	1,404.61	1,505.94	1,530.91
3	Non-performing assets	92.90	131.22	150.66	154.65	198.64
4	Written Off #	50.18	17.24	18.44	11.73	37.25
5	Total Non-performing Assets and Write off (3+4)	143.08	148.46	169.10	166.38	235.89
6	**Percentage of NPA to total assets as worked out by the Company**	**6.7**	**9.0**	**9.7**	**9.3**	**11.48**
7	**Percentage of NPA worked out by Audit (including write off)**	**10.27**	**10.18**	**10.87**	**10.01**	**13.64**

Source: Data furnished by the Company

Note:# Though these amounts were written off by the Company, action would be continued for recovery like other categories of NPA.

Audit observed that:

The prevailing percentage of NPA of the Company was high compared to 5.80 *per cent* (MSME 7.45 *per cent*) in the case of other Financial Institutions and Nationalised Banks in Tamil Nadu.

The Company had already agreed (December 2010) in the MOU with SIDBI that it would bring down NPA within 10 *per cent*. The excess level of NPA indicated the inability of the Company to recover the dues from the defaulters as is evident from the fact that the NPA cases increased from 285 to 1,346 and the amount increased from ₹ 92.90 crore to ₹ 198.65 crore in the last five years ending 31 March 2016. If only the Company had contained its NPA at 10 *per cent* as committed, the same would have generated internal source of ₹ 83.23 crore and would have earned an additional revenue of ₹ 8.32 crore (calculated at minimum interest of 10 *per cent).*

In all the 63 cases (₹ 14.43 crore) of NPA test checked, the Company had not invoked the personal guarantee of the promoters.

The Company which had a data of 5,329 live borrowers, data relating to 2,463 borrowers only were updated (31 October 2015) with Credit Information Bureau (India) Limited (CIBIL). This was against RBI's guidelines to update and enlist periodically the willful defaulters of ₹ 25 lakh and above to CIBIL. The shortfall in updation of the data was attributed to non-completion of the software solutions compatible to CIBIL.

Nineteen cases involving ₹ 57.77 crore which had been written off during 2011-16 had revealed various deficiencies in the recovery mechanism as detailed in **Annexure-10.** In these cases, the collateral value of the property held by the Company was ₹ 30.42 crore. However, the respective branch offices of the Company failed to take possession of these collateral securities and auction them for adjustment of the recovery of overdues.

Extension of One Time Settlement scheme (OTS)

2.1.32 All doubtful loans and loss assets[36] are eligible for settlement under one time settlement scheme provided the default was due to genuine reasons and not wilful and the borrowers were not involved in any fraudulent practices. Thus, the benefit of OTS was meant for *bonafide* defaulters only. The following table indicates the OTS cases under various categories:

Table-2.1.6 Settlement of cases under OTS

(₹ in crore)

Sl. No.	Category	Number of cases	OTS amount collected	Amount waived
1	Settlement of loss and written off category without any asset back up	94	0.74	79.99
2	Settlement of loans disbursed upto ₹ 10 lakh with asset back up and in the category of doubtful and below (including written off)	308	4.64	103.22

36 The loans, which are identified as non-recoverable but not written off are classified as loss assets.

Sl. No.	Category	Number of cases	OTS amount collected	Amount waived
3	Settlement of loans under compromise and negotiated settlement scheme	67	10.64	385.65
	TOTAL	**469**	**16.02**	**568.86**

Source: Data furnished by the Company

Audit observed as under:

- As per the Credit Manual, the amount recovered through OTS should include principal and simple interest. In respect of 469 cases mentioned above, the amount waived was ₹ 568.86 crore, which worked out to 97 *per cent* of the total dues. It is pertinent to mention that the Company had neither valued the collateral security in hand nor invoked the same before extending the OTS scheme to the defaulters. Thus, this action of the Company was not in its financial interest.

- As per the instructions issued by the RBI from time to time, the OTS was not to be extended to the wilful[37] defaulters. However, the Company did not classify the defaulters as *bona fide* and wilful defaulters at the unit level. An independent verification by Audit of the three[38] branch offices revealed that OTS was extended to 11 wilful defaulters by collecting ₹ 0.13 crore and by waiving ₹ 15.99 crore, which resulted in extension of undue benefit to wilful defaulters.

- As per RBI guidelines and the Company's Credit Manual governing the OTS scheme, only interest is to be waived and not principal. But, Audit noticed that the BOD approved waiver of principal amounting to ₹ 14.42 crore. Even though the Company justified wavier of principal on the ground that the cases were very old, Audit found that mandatory pre-audit before extending OTS was not carried out in respect of all the 469 cases.

The above deficiencies indicated that the recovery action was not timely and OTS was extended to willful defaulters which led to increase in NPA.

The Company replied that the extension of OTS and waiver of the principal was with approval of the BOD. Notwithstanding the approval of the BOD, the concessions were extended against the RBI guidelines and without following legal process, recovery of dues from the collateral securities and guarantors, *etc*., resulting in undue benefits to the ineligible defaulters.

Possession of assisted units

2.1.33 Section 29 of the State Financial Corporation (SFC) Act empowers the Company to take possession of the assisted units and dispose of their assets to recover the dues in case of default. The details of units taken possession as on 31 March 2016 are given in **Annexure-11**

Audit observed as under:

37 A loanee would be classified as willful defaulter if he defaulted the loan repayment despite having capacity to pay, diverted the working capital, sold or transferred the assets of the units without the approval of the financial institution.

38 Thiruvallur (five cases), Kurichi (five cases) and Erode (one case).

- During 2011-16, the Company had taken possession of 111 units even though it had categorised 169 units for the purpose of doubtful and loss assets for which it had already made provision for 100 *per cent* of the outstanding dues. Even though the Company's Credit Manual stipulated that the assets of the defaulting units were to be taken over after 21 days of issue of notice foreclosing the loan, the shortfall in takeover indicated that the Company had exercised selective approach in takeover of the assets without any recorded justification.

- The Company did not fix any annual targets to dispose of assets. Consequently, there were 69 out of 132 units under possession for more than five years as on March 2016. Due to holding of these assets over longer period, the Company had to incur maintenance of security charges, which worked out to ₹ 4.94 crore for the period 2011-15.

- The Company conducted auctions and sold assets of 135 units and realised ₹ 11.88 crore as against the price of assets fixed by the Company amounting to ₹ 14.53 crore. Audit noticed that these amounts constituted only two *per cent* of total outstanding amount of ₹ 677.35 crore in respect of these units. It is pertinent to mention that COPU had already recommended for forming a strategy for timely disposal of assets. The continuation of delays in takeover of the assets and disposal leading to deterioration of value of assets and consequent loss implied that the Company had not implemented COPU's recommendation.

The Company replied that the takeover of units was considered as a last resort. The reply was not correct as the takeover was carried out by the Company without fixing any time limit or criteria.

Internal Control and Internal Audit

2.1.34 The following deficiencies were noticed in the corporate governance and Internal Control System of the Company:

- The Company conducted 42 board meetings during 2011-16. The Directors representing the MSME and Finance Department were absent in 30 and 28 meetings respectively. The absence of these Directors deprived the guidance of two vital departments on various issues on policy of disinvestment, mobilisation of resources including capital bonds *etc*.

- The Company decided (December 2010) to create a centralised data base to facilitate the corporate office to monitor and analyse the performance of the branch offices through web centric solution. The contract for web based solution was awarded (March 2011) for a value of ₹ 1.04 crore to Electronics Corporation of Tamil Nadu Limited (ELCOT). Though the work was scheduled to be completed in December 2012 for which the Company had already paid part amount of ₹ 66.34 lakh, the work remained incomplete due to delay in finalising the user requirement by the sub-contractor of ELCOT. Consequently, the web based data base was not implemented by the Company even after lapse of five years of the award of work order.

The Company replied that the rollout of the project was expected to complete by December 2016. The fact remains that there were unduly long delays in taking care of the above work, which was important for informed decision making by the management.

- Though the Company's existing credit policy stipulated (July 2008) that the policy was to be reviewed on annual basis, the same was not complied with for the last eight years upto March 2016. It is pertinent to mention that this lapse was also pointed out by SIDBI in their inspection report of April 2016. The Company replied that the revision of the credit policy was under consideration by the BOD.
- The BOD did not analyse the investments made by the Company in the shares of assisted units to propose to the Government for possible disinvestments at the appropriate time.

2.1.35 The Company had not prepared the internal audit manual till date, which would have outlined the standards of performance of the internal audit wing. The internal audit did not cover the planning, finance and resources management sections of the corporate office. Similarly, they did not cover the OTS scheme of the branch offices. The audit committee did not review the adequacy of the internal audit functions, as the Company placed before the audit committee meeting only the status report of internal audit with no reference to the observations. The internal audit report did not report any of the sanction failures, monitoring lapses, *etc.*, during the entire period of 2011-16 to the BOD. Thus, the internal control system in the Company was inadequate to periodically review the systems for efficient performance, as it did not help the management for taking informed decisions.

During the exit conference, the Company stated that updated internal audit manual would be submitted to BOD for approval.

Acknowledgement

Audit acknowledges the co-operation and assistance extended by the staff and management of the Company at various stages of conducting the Performance Audit.

Conclusion

The Company established to provide financial assistance to MSME sector had been rendering such assistance marginally, while the coverage by banks and others was significant. The performance could have been better if the Company had drawn a long term strategic plan addressing its weaknesses such as non-competitive interest rate and not carrying out wide spread coverage throughout the State. Though the Company earned profits in all the five years of 2011-16 and wiped off its entire accumulated loss, the profit could have been better if the Company had mobilised its resources economically and avoided the deficiencies in Sanction and disbursement of loan, Monitoring the assisted units and Recovery of loans and advances noticed by Audit during 2011-16. These deficiencies found in the earlier review and found to be continued during current PA, led to huge write off of NPA and an overall increase in NPA. There were also deficiencies in implementation of OTS as well as in disposal of the assets taken over.

Recommendations

The Company needs to:

- draw a long-term corporate plan setting out its goals and strategy for achieving them as per the directions of GoTN.
- avail the external borrowings after evaluating the cost of borrowings from various sources.
- ensure viability of the assisted project based on independent assessment before extending financial assistance.
- ensure strict adherence to the laid down procedures for sanction and disbursement of loan.
- continuously monitor the assisted units by obtaining and reviewing the financial reports and by periodical inspection.
- fix the target for recovery at 100 *per cent* of the amount due, to minimise the shortfall in recovery and NPA.
- promptly enforce legal process for recovery of overdues from collateral securities and guarantees before extending OTS facility.
- implement project of web-centric data base without further delay.

2.2 Follow up IT audit on the Computerisation of Tamil Nadu State Marketing Corporation Limited

Executive Summary

Tamil Nadu State Marketing Corporation Limited (Company) has the exclusive privilege of wholesale supply and retail vending of Indian Made Foreign Liquor (IMFL) in the State. IMFL is procured and distributed through its 43 depots and 6,200 Retail Vending Shops (RV shops) across Tamil Nadu. The Company had computerised its operations in 1998. The Company decided to upgrade the hardware and software to Oracle platform in three phases. The third phase commenced in 2009.

Previous Audit Coverage

An IT Review on the Computerisation of TASMAC was included in the Audit Report (Commercial) 2008-09 with seven recommendations which were accepted by the Company.

The present audit was taken up, as a follow-up, to assess whether the recommendations were implemented.

Recommendation 1- Uniform software in all depots

Uniform software has been implemented in 43 depots. However, due to poor management of contracts, the implementation of third phase of upgradation of software got delayed by 6 years.

Recommendation 2-Computerisation of SRM, DM offices and RV shops

The SRM and DM offices were linked with neither Godown Monitoring System (GMS) nor Integrated Information Management System (IMS) leading to duplication of works. Though 2,204 RV shops were installed with Electronic Billing Machines (EBMs), the data generated could not be used for decision making due to lack of reliability as invoices were not captured during the course of actual sales.

Recommendation 3- Input and validation checks

The deficiencies pointed out in the earlier Report such as non-availability of provision to capture multiple batch numbers, missing continuity in system generated numbers, sales to customers without verifying licenses, deficiencies in issue of transport permit, flaws in mapping tax laws and manual intervention in system generated numbers continue to remain till date (November 2016).

Recommendation 4- Development of in-house expertise for maintenance of the system

The Company did not have an IT wing supported by qualified personnel. The Company continued to employ outsourced programmers to maintain the systems.

Recommendation 5 –Protect validity and confidentiality of transfer of data

The Company continued to transfer data from depots to Corporate Office (CO) through private e-mail servers and over telephone, reducing the reliability and confidentiality of the data.

Recommendation 6 - Lay down Business Continuity and Disaster Recovery Planning

There was no access control policy to regulate access to the system. A documented backup policy involving storage both at on-site and off-site and regular restoration of backup data did not exist even now at the Company.

Introduction

2.2.1 Tamil Nadu State Marketing Corporation Limited (Company) was incorporated in 1983 as a State Public Sector Undertaking (PSU). The Company has been granted the exclusive privilege of vending Indian Made Foreign Liquor (IMFL) for the entire State of Tamil Nadu on wholesale basis in May 1983 and retail basis in November 2003. The Company procures IMFL from various manufacturers, within and outside the State and distributes through 43 depots and 6,200 Retail Vending shops (RV shops) situated in different parts of the State. The procurement of IMFL is done centrally at Corporate Office (CO) and delivered at depots which, in turn, distribute to the RV shops and directly sell to the clubs and hotels.

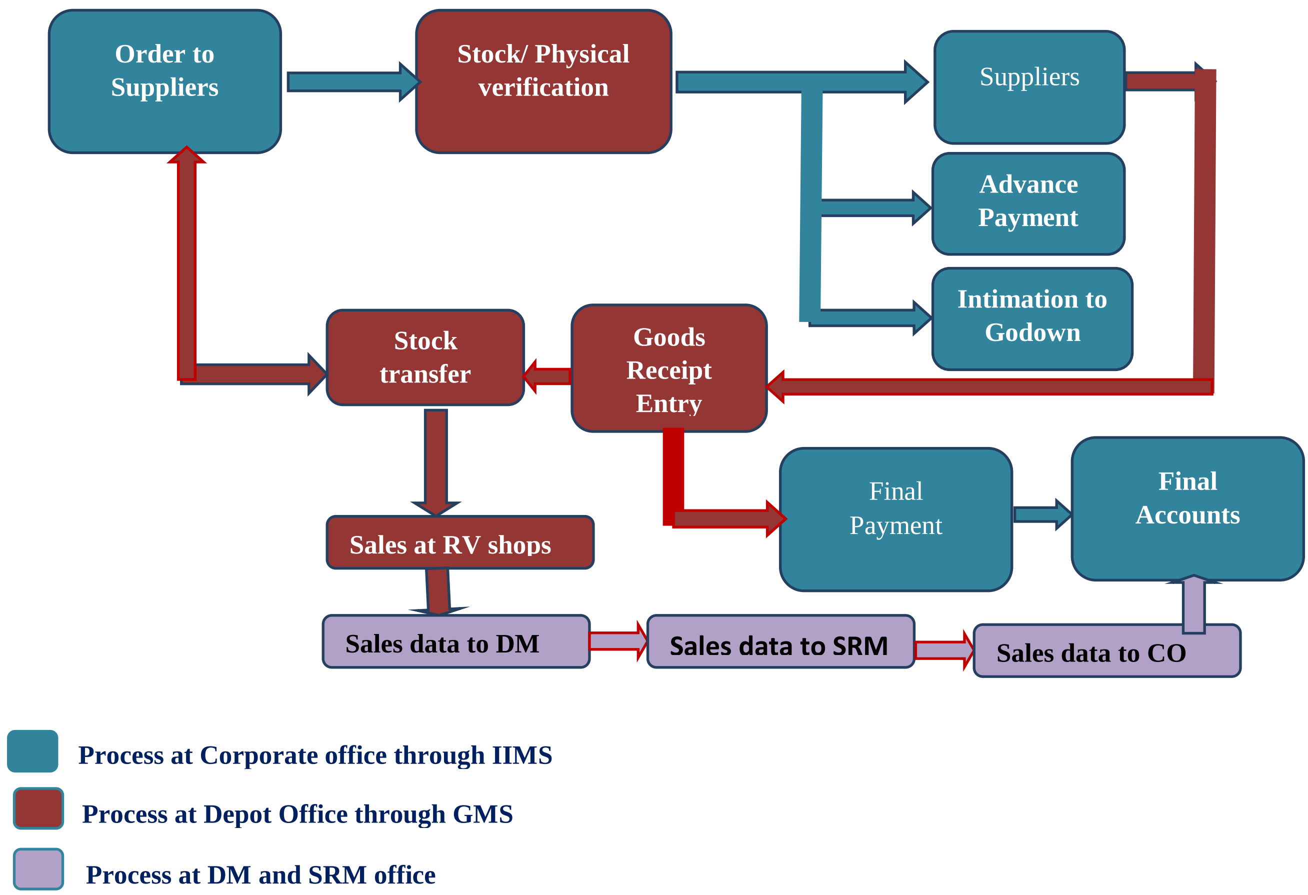
Organisational Setup and business process

2.2.2 The Managing Director (MD), assisted by three functional Chief General Managers/General Managers at CO, is the Chief Executive of the Company. In the field, there are five Senior Regional Managers (SRM) assisted by 33 District Managers (DM).

Computerisation

2.2.3 To have better inventory control, disseminate timely information to the management, supply chain management and ensure safety of the data at depots, the Company carried out (1998) computerisation of its operations such as order placement, bill processing and payment, stock monitoring, financial accounting at CO and SRM office and depot level. The above work was completed with Oracle as back end at CO and FoxPro as backend at Depots. The application used in CO was Integrated Information Management System (IMS). At depot level, the Stock Monitoring System was operated as standalone software called Godown Monitoring System (GMS). Later, the Company decided (September 2001) to upgrade the existing hardware and software at the Depots to Oracle in a phased manner. The activities of the Company are depicted in the following diagram.

Process flow diagram



Previous Audit Coverage

2.2.4 An IT audit on the Computerisaton of the Company was included in the Audit Report (Commercial) 2008-09 and was placed in the State Legislature in May 2010. During this audit, it was found that the Company failed to evolve long term strategy for up-gradation of computerisation programme resulting in incompleteness of the existing system. Deficient input controls and validation checks made the data incomplete, incorrect and unreliable. Absence of computerisation of SRM offices and RV shops led to manual interventions in assimilation of required data. Therefore, Audit had made the following seven recommendations and the Company, accepting all the recommendations, assured to take the required corrective action.

Recommendations of the earlier review

2.2.5 The accepted recommendations of the previous IT Audit were**:**

- Implementation of uniform software in all Depots
- Computerising the SRM and DM Offices and RVshops
- Building necessary input and validation checks to extract complete, correct and reliable data
- Develop in-house expertise to maintain the system

- To protect the privacy and confidentiality of transfer of data
- Lay down well documented Business Continuity and Disaster Recovery Management plan and
- Consider an integrated system for the Company's IT environment.

Scope and Methodology

2.2.6 The present audit was taken up between March and June 2016 to assess whether the recommendations made in the earlier IT audit, which had been accepted by the Company, were implemented. Audit Methodology included issue of questionnaire to the Company to elicit action taken to implement the accepted recommendations. The Company's response was analysed and verified through data analysis of records of the Company for the period 2009-16, to ascertain the extent of implementation at CO, SRM offices, DM offices, Depots and RV shops. An exit conference was held on 16 November 2016 with the Commissioner of Prohibition and Excise cum MD of the Company to discuss the follow-up audit findings. The views expressed in the exit conference and the reply received (November 2016) from the Government were considered and incorporated, wherever found necessary. The audit findings are discussed below:

Audit findings

Recommendation No.1

Implementation of uniform software in all Depots

2.2.7 One of the main recommendations of the previous Audit was to implement uniform software in all depots. However, it was noticed during the present Audit that:

Following the up-gradation of 25 depots with Oracle in the two phases between 2004 and 2008, the Company decided (February 2009) to upgrade the remaining depots in the third phase. After finalising the system requirements for the third phase, the Company issued (August 2010) Purchase Order (PO) for procurement of 16 servers at a cost of ₹ 21.21 lakh, which were delivered between December 2010 and February 2011. Subsequently, the Company decided (August 2011) to procure the desktops, operating systems, Oracle software license and database conversion job and requested (November 2011) M/s ELCOT to supply the required hardware and software by making (January 2012) an advance payment of ₹ 39.91 lakh. Though M/s ELCOT supplied (February to April 2012) desktops and operating software, it could not deliver the Oracle software because of non-finalisation of tender for supply of Oracle software due to which data base conversion was not possible. After prolonged correspondence, M/s ELCOT refunded (August 2013) ₹ 17.54 lakh, being the cost of Oracle software. In the meantime, the 16 servers already procured were utilised as replacement for the servers commissioned in the first and second phase of conversion.

The Company again placed (July 2014) order with M/s ELCOT for 17 servers at a cost of ₹ 74.68 lakh and received the same during October 2014. The

Company also procured (April 2015) 90[39] Oracle software licences from M/s ELCOT at a cost of ₹ 28.45 lakh. The database conversion work at 18 depots (16 old and 2 new) was awarded (April 2015) to M/s Broadline Computers at a rate of ₹ 45,000 per depot and work was completed in September 2016.

In this connection, audit observed the following:

- As per the PO placed with M/s ELCOT, the supply of Oracle license should be completed within one month from the date of PO, *i.e*., by February 2012. However, ELCOT did not supply the Oracle license even after a delay of 16 months (from March 2012 to August 2013) due to its failure to finalise the rate contract for supply of the license from the outsourced agencies. Audit further noticed that the Company could not levy any liquidated damages for the non-fulfillment of the PO condition, which was due to non-inclusion of penalty clause, which mainly contributed for delayed implementation of third phase to that extent.
- The PO issued to M/s Broadline Computers also did not specify any time frame for Oracle conversion or penalty clause. Consequently, the work which was started in April 2015, could be completed only in September 2016, but the Company could not levy penalty. Hence, the depots continued to operate with dual databases.
- The work was awarded to ELCOT for Oracle conversion without mentioning any time frame, which led to abnormal delay of six years in completion of the work.

The Government replied (November 2016) that all depots of the Company have switched over to Oracle, and from 01.09.2016 onwards all depots transactions have been carried out in uniform programme. However, the reply was silent about the poor planning for implementation of the third phase of computerisation which got delayed by 6 years.

Recommendation No.2

Computerisation at SRM, DM offices and RV Shops

2.2.8 In the earlier IT Audit, we had commented that implementation of software in Depots and SRM offices in FoxPro platform was envisaged (October 1997), but no such software was being used in the SRM Offices and there was no connectivity between depots and SRM offices. During the present Audit, we noticed the following deficiencies in computerisation of SRM, DM offices and RV shops.

(a) Computerisation at SRM Offices

Though the Company had assured (November 2009) that SRM offices would be equipped with the Regional Office Information System Module (RMIS) during the III phase of conversion of 16 Depots, it was noticed during follow-up audit that the work order issued for conversion of depots under III phase did not include conversion of/installation of RMIS at SRM offices due to not analysing the user requirement by the Company. Thus, the SRM

[39] Five licenses each for 18 depots.

offices which act as a link between the depots and CO did not have access to either GMS or IMS. Due to this, data was continued to be collected through e-mail from the Depots and forwarding the processed data to CO again through e-mail, which otherwise would have been carried out automatically at SRM office. Further, this process necessitated the Depots to process the required data in MS-Excel format, which resulted in waste of time and effort at the Depot level.

The Government replied (November 2016) that computerisation of SRM offices will be taken up during the installation of integrated software like SAP/ERP software. However, we are of the opinion that before going to SAP/ERP software, the installation of existing IMS at SRM office with the access restrictions to their jurisdiction, as an immediate step would reduce the duplication work.

(b) Computerisation at DM offices

During the present audit, the following were noticed in DM offices:

- Depots collect indents from the RV shops, generate stock transfer invoice using GMS and the hard copy of invoice is sent to DM office. In DM office, the stock transfer invoice is again prepared in MS-Excel and uploaded to Electronic Billing Machines (EBM) web server. Thus, the Company failed to auto upload the GMS data in EBM, resulting in duplication of work at DM office. Further, this failure had risk of errors in data feeding manually.
- Further, to ascertain the actual sales and arrive at the amount to be remitted to the bank by RV shops, DM office collects data on opening stock, stock transfer from depots, stock returns, closing stock and bank remittance from the RV shops, in writing and feed the data into MS-Excel. Though all these information is available in GMS, EBM server and the SMS server[40], they are once again collected from the RV shops in printed forms due to lack of inter-connectivity between RV shops and DM office, resulting in duplication of work and having a risk of errors in data feeding manually.

The Government replied (November 2016) that till the EBM is installed in all the shops, the existing system will continue as it is very effective. However, the Company could have connected the already working EBMs, SMS server with GMS server and tested their effectiveness.

(c) Computerisation at RV shops

In the previous audit, it was observed that the sales figures from RV shops were passed through telephone to CO affecting the reliability and confidentiality of facts. During the present audit, it was observed that:

- The Company invited tender for procurement of 2,500 EBMs for usage at RV shops. The Company started receiving 2,500 EBMs from October 2013 in 5 lots, however, it initiated action to set up the cloud server[41] after

40 It is a web server containing the daily sales details of individual RV Shops sent by the shop Supervisors using mobile SMSs.

41 The cloud server is an internet based computing that provides shared computer processing resources and data to other computers and devices on demand.

three months only, *i.e*., with effect from December 2013. Thus, the second phase of installation of 4,335 EBMs, as announced (May 2013) by the Government was yet to be taken up.

- Further, the EBM supplier had not supplied 90 EBMs in addition to the 2,500 as agreed to by him during the price negotiation, which was not insisted upon by the Company.
- Audit test checked 41 out of 2,204 RV shops EBMs data, selected randomly covering all the five regions, which revealed that on 21 March 2016 and 28 March 2016, in all the shops, invoices were prepared not in the course of actual sales but after working hours and in batches. Thus, the very purpose of EBMs *viz*., real time capture of sales details was defeated.
- Comparison of both sales details generated through SMS and EBM of Chennai North, on 29 February 2016 and 31 March 2016 revealed that there was discrepancy in both sale details. EBM values were overstated in 30 shops to the extent of ₹ 17.29 lakh and understated in 45 shops to the extent of ₹ 49.86 lakh. Since the data generated by EBM are not matching with the data collected through SMS system of collecting sales details, the same was not accurate.

Audit observed that the information captured through EBMs were not utilised for collecting daily sales details of RV shops. This indicated that an amount of ₹ 7.14 crore[42] spent for the purchase of EBMs and rental cost of cloud server, did not serve its intended purpose. The MD stated in the exit conference that a system study was under progress to integrate the EBM data with GMS and the existing EBMs will be linked in the first phase.

Recommendation No.3

Build input and validation checks to ensure completeness, correctness and reliability of data

2.2.9 The previous audit had commented on various deficiencies in input controls and validation checks.

During follow-up of earlier audit, the test check of six depots[43] revealed the following:

(a) Non-availability of provision for capturing multiple batch numbers

To ensure inventory management on first in first out (FIFO) basis as per the accounting policy of the Company, the batch number and date of manufacture must be entered at the receipt point in Goods Receipt Acknowledgement (GRA) and at the selling point. However, the GRA module had provision to capture details of only one batch for an item and not for items which have multiple batches. Similarly, sale invoices did not have provision to capture the batch details and GRA numbers. Hence, goods despatched from depots could not be linked with their receipt in the depot. Further, the age-wise inventory, sediment stock, if any, *etc*., at the depot level, were not ascertainable.

[42] ₹ 6.70 crore on procurement of EBMs and ₹ 0.44 crore on hiring of cloud servers.
[43] Ambattur I, II and III, Thirumazhisai I, II and III.

On this being pointed out, Government accepted (November 2016) that the batch details were not captured in the system, instead FIFO method was being ensured through manual control. This indicated that the deficiencies pointed during earlier audit continued without rectification till date (November 2016).

(b) Continuity in system generated numbers

GRA numbers and Invoice numbers were generated through the system automatically in GMS and hence, the numbers should be continuous. In the previous audit, as well as during the follow-up audit, it was noticed that there was no continuity in such numbers. The gaps found in documents verified by Audit are tabulated below:

Name of the document	Number of gaps	Missing numbers
GRA	**5,576**	**78,240**
Invoice	**9,817**	**4,42,148**

Audit scrutiny revealed that missing GRA/Invoices reflect cancelled ones. However, Audit trail to verify the reasons for such cancellations was not available in the software. Therefore, the justification for such cancellations could not be verified by Audit. The Government stated (November 2016) that, instructions were given to the Company to see that there were no such missing/cancellation *etc*. If at all there were any missing/cancellation, details should be recorded for future reference.

(c) Linking of Master Stock Register with Physical Verification module

The Master Stock Register (MSR) is linked with Physical Verification Excess Entry Module (PVEEM). The PVEEM has an edit option, whereby the excess stock, if any, found on physical verification, during previous day could be accounted for directly in the MSR. Though the excess/shortage of stock found during physical verification had to be adjusted in MSR only after verifying its justification by the competent authority, automatic adjustment of stock in MSR defeats the basic objective of physical verification and not having any control over persons responsible for such shortage/excess of stock. An attempt by audit to overwrite the opening stock through PVEEM was accepted by the system, indicating the continued deficiency in the system design. The Government replied (November 2016) that now the Depot Managers had been instructed to maintain excess/shortage stock in a separate file. However, the possibility of changing the stock position through the module is still prevalent.

(d) Sales to the customers without verifying validity of licenses

Invoices to customers were generated through the Retail Invoice Module by linking with the customer details. This was envisaged in the system to have internal control over the sales. During data analysis, it was observed that 25,548 invoices were issued during 2015-16 to 152 FL2/FL3 Licensees,[44]

[44] These customers represent Clubs and Hotels who are given annual licences for holding the stock of IMFL.

whose licenses had expired as on 31 March 2015. This implied that the software did not have the provision to check the validity of the licenses and refusal to generate invoices in case of expired licenses. Further, analysis showed that the details of renewal of licenses had not been updated in the system. The Government replied (November 2016) that instructions have been given to update the system through programmers.

(e) Transport Permit

As per the extant rules, liquor cannot be transported without proper transport permit. Further, as per the procedure in vogue, only one invoice should be raised per customer per day. Hence, the software was designed to generate only one transport permit for one shop against one invoice on the same day. It was, however, observed that the system allowed generation of more than one invoice per RV shop on a given day.

In view of this, if more than one invoice was prepared, the quantities relating to second invoice were being written manually in the transport permit already generated by the system. During data analysis for the year 2015-16, it was found that 534 invoices were issued with no separate transport permit through the system for goods sent from the depots to RV shops, which indicated that the business rules were not mapped in the system development even though it was pointed out in the previous Audit Report. The Government replied (November 2016) that necessary instructions have been issued to modify the programme.

(f) Non-capturing of Lab report

As a part of quality management system, the software was designed to capture the details of quality report obtained from the manufacturer's laboratory. Moreover, as per the software specification requirements, system based quality monitoring was essential to process the Bills for payment. On analysis of data, it was noticed that these details of quality checking were still not captured in the system. The Government replied (November 2016) that necessary instructions have been issued to capture the lab results.

(g) Mapping of Tax Laws

As per Section 206 C read with section 288 B of Income Tax Act, the Company has to collect tax on sale of liquor to clubs and hotels and any amount payable under this Act should be rounded off to the nearest multiple of ten rupees. It was, however, observed that the software rounded off the tax component to the next higher rupee instead of to the nearest multiple of ten rupees indicating incorrect mapping of tax laws in the software. This may result in excess/short collection. Data analysis for the period 2009-15, revealed that tax collected on sales were wrong for 17,725 sales, which resulted in excess/short collection of ₹ 40,420 / ₹ 18,518.

Though the Government replied (November 2016) that software has been modified accordingly, the data analysis at depot, however, revealed the existence of the same issue in mapping of tax laws.

(h) Manual Interventions in system generated invoice numbers

The invoice numbers were generated automatically in chronological order by the system along with system date and time. On a further scrutiny, it was found that the system dates were changed through manual intervention. Thus, the data was vulnerable to manipulation.

Data analysis revealed that in 14,820 cases, the chronological order with reference to the time and dates was missing. On this being pointed out, the Government replied (November 2016) that FL2/FL3 licensees give indents on a particular day with an assurance to lift the stock on the next day. Based on this, the invoices are prepared for the next day by changing the date in the system. However, the change in the data at the back end would amount to tampering of data and may lead to financial irregularities and possible fraud.

Recommendation No.4

Development of in-house expertise for maintenance of the system

2.2.10 Though the Company had initiated computerisation of its activities in 1998 itself, it did not have an IT wing supported by qualified personnel. Further, it was noticed that the Company continued to employ eight outsourced programmers to maintain the GMS, IMS and EBM software.

The Government replied (November 2016) that the software related services were being availed on outsourcing basis to have continuity on maintenance and updating the existing software since September 2009. The fact, however, remains that even after lapse of seven years, the programmers were continued from the same software Company. Thus, the deficiencies pointed out in the previous Report were still persisting.

Recommendation No.5

To take necessary steps to protect validity and confidentiality of transfer of data

2.2.11 GMS data available in the depot offices was not uploaded automatically to the Central server, which was located at CO. The data from depots is transmitted every day to the CO as text files/zip files through internet using private e-mail IDs, which would result in data being stored in foreign server and thus, possibility of external threats to data would increase. Further, the daily sales figures from the RV Shops, through SRM and DM offices, were passed over the telephone to the CO, thus reliability and confidentiality of the facts could not be taken care of. Thus, the Company was yet to ensure validity and protect confidentiality of transfer of data.

While accepting the audit observation, the Government stated (November 2016) that as the Company did not have an independent holistic system having own servers, integrated IT system covering all aspects, it was dependent upon private e-mails. The non-existence of integrated IT system has been commented vide Recommendation 7.

Recommendation No.6

To lay down well documented Business Continuity and Disaster Recovery Planning

2.2.12 During the previous audit, it was pointed out as under:

(a) Physical and Logical Controls:

- that there was no password policy to regulate access to the system. The access to the system was not controlled by user authentication procedures with proper access rights and authority levels.
- that there was no System Administrator to regulate access to the system and there was no audit trail in the system of corrections/modifications carried out in the system.
- that same user names and passwords were being used in all depots by all users.
- that no fire-walls, intrusion detection system was installed.
- that since the maintenance of GMS was outsourced, the vital data stored in computers was accessible to outsiders, which increased the risk to the data security.

(b) Business continuity and disaster recovery planning:

- A documented backup policy involving storage both at on-site and off-site and regular restoration of backup data did not exist at the Company.

Audit observed that all the above deficiencies were still prevalent in the depots/CO (November 2016).

The Government replied (November 2016) that computers were being used under the strict supervision of DMs, Depot Managers, who were Deputy Collectors, Tahsildars on deputation from Government. Hence, there would not be any wrong doing by the computer operators. The fact, however, remains that the system deficiencies pointed out in the previous audit continued to exist till date (November 2016).

Recommendation No.7

Considering an integrated system

2.2.13 During the previous audit, it was recommended that an integrated system for IT environment was essential, considering the volume and value of the transactions involved. However, during follow-up audit, it was noticed that such an integrated system was yet to be implemented, as detailed below:

- At present, the Company was having IMS only at its CO without stock monitoring system and RMIS modules.
- The Stock Monitoring System was operated as stand alone software (GMS) at depot level. The SRM offices were not supplied with the RMIS module.
- Since GMS are not integrated with the IMS, Depot data such as GRA, stock transfer to RV and Invoice generation are transferred to CO, in MS-Excel format through e-mails and are verified and uploaded to IMS database at CO and used for the decision making processes like need

analysis, order placement, indent placement, and for making payment to suppliers.

- In order to place indent for materials based on the actual stock position of Depots, CO collects particulars like, stock of materials, supplier-wise, brand-wise, size-wise sale and stock in transit through e-mails on daily basis.
- The Financial Accounting System module, which is part of IMS was available in CO only.
- Depots, DM and SRM offices prepare the monthly accounts in MS-Excel and forward to CO through e-mail. The CO consolidates the accounts through IMS after ensuring correctness. Had the Company linked Depots, DM and SRM offices with IMS, the monthly accounts could have been prepared automatically.

In the absence of an integrated system, the following deficiencies were noticed:

(a) Order processing

Orders to be placed on the various suppliers are arrived at by calculating weighted average sales of each brand. For this purpose, Company collects item-wise sales details of IMFL and Beer, both in quantity (cases and bottles) and value, in a text file exported from GMS, from all the depots so as to arrive at the sale per day (case-wise). Audit compared the original records of Ambattur (I-III) and Thirumazhisai (I-III) depots with the uploaded IMS sales per day records of the CO during the period 2009-16 and observed as under:

- In 1,975 instances, the depot and CO records showed differences in both quantity and value.
- A total of 3,44,569 cases of bottles with a value of ₹ 108.24 crore were shown in excess in CO records than the depot records.

The above instances indicated that corrections were made to the depot data after transmission to the CO leading to decision taken based on manually intervened sales data.

The Government replied (November 2016) that the difference was due to correction subsequently done in depot in respect of invoices and same was not updated/replaced in CO system, *i.e.*, due to non-receipt of/not uploading final data in the system at CO. The reply confirmed the audit observation.

(b) ***Payment of approximate VAT***

The Company is required to collect sales details from 6,200 retail shops regarding 87 IMFS and 16 Beer brands with 3 and 2 pack sizes. Each brand/pack size has different selling price and sales tax rate in respect of each item is also different. Considering the difficulty in ascertaining the actual total sales, for the purpose of payment of VAT, the Company adopted a formula, wherein the total collections remitted in bank of each Branch is apportioned towards Beer as well as various brands/sizes of IMFS on the proportion of stock transferred from Depots to RV shops during the month.

In the subsequent month, the correct amount of sales is calculated and the difference is adjusted/paid.

Audit scrutiny revealed that though EBM software has facility to generate brand-wise/pack-wise sales details but the data could not be utilised for payment of VAT as the Company considered the data as unreliable/incorrect. Hence, the Company was paying sales tax at approximate sale value and subsequently adjusting/paying the dues along with penalty/interest. As per the demand notice (July 2015) of Commercial Taxes Authorities, the amount of penalty for short payment of tax during 2014-15 was ₹ 2.55 crore. Audit further noticed that during 2015-16, the Company made excess payment of VAT in seven months ranging from ₹ 4.23 lakh to ₹ 87.40 lakh and short payment in five months ranging from ₹ 19.51 lakh to ₹ 3.25 crore, indicating that the penalty for the year 2015-16 was also not ruled out. The necessity for payment of penalty was due to non-implementation of EBMs in all the RV shops and non-integration of the installed EBMs with the IMS, which would have enabled the Company to generate accurate sales figures.

The Government stated (November 2016) that the Company was taking corrective measures for smooth flow of data to EBMs to computer nodes in CO, DM office through external means. Once all EBMs start working without any hindrance, the payment of VAT would be done based on the EBM figures.

(c) Accounts issue

Though the GMS could generate stock statement at the close of the accounting year, the Company has not used the same for valuation of closing stock. Instead, it considers only the physical verification report submitted by other Depots/District Managers, indicating unreliability of GMS.

The Government replied (November 2016) that the valuation of closing stock was to be done based on the physical verification report, as per the requirement of the Companies Act and Accounting Standards (AS-2: Valuation of inventories). However, the system lacks provision to record the authority and justification to modify the MSR.

Conclusion

The Company having an annual turnover of more than ₹ 30,200 crore could not integrate its activities at CO, depots, SRM and DM offices as well as RV shops through the computerised environment even after the lapse of 15 years. Such non-integration was mainly due to absence of IT policy and strategic plan and execution of computerisation in a piece-meal manner without covering SRM offices, DM offices and RV shops. Further, the present levels of computerisation lacked adequate controls, validation checks resulting in the data generated becoming unreliable. Though these deficiencies were pointed out by Audit in 2008-09 and the Company also accepting to overcome the deficiencies, persistence of the same deficiencies even in 2015-16 revealed that the lackadaisical approach to bring in computer based decision making to manage its massive activities. Thus, there was an urgent need for the Company to

frame an IT policy and reorient its activities for installing uniform software at CO, SRM, DM, Depots and RV shops.

CHAPTER-III

Compliance Audit Observations

Important Audit findings, noticed as a result of test check of transactions of the State Government companies are included in this Chapter.

Tamil Nadu Industrial Development Corporation Limited

3.1 Loss of revenue

The Company suffered a loss of ₹ 46.65 crore due to non-collection of service charges as per Joint Venture agreement

Tamil Nadu Industrial Development Corporation Limited (Company) entered (April 2008) into a Joint Venture (JV) agreement with Larsen & Toubro Limited to form a ship building company *viz*., L&T Ship Building Limited (LTSBL)[45]. As per Clause 17 (a) of the JV agreement, the Company would provide certain services to LTSBL against reasonable service charges. It was also agreed that the details of service and quantum of service charges would be determined by a separate service agreement.

As provided under Clause 17 (a) of the agreement, the Company rendered services (between June 2008 and September 2014) in the form of forwarding the applications for statutory clearances such as (i) clearances of Ministry of Environment and Forest, Government of India and Tamil Nadu Pollution Control Board, (ii) obtaining port status under Customs Act and (iii) approval for Special Economic Zone, *etc*.

However, as stipulated under Clause 17 (a) of the agreement, the Company did not execute the service agreement with LTSBL. Though the reason for not signing the agreement was not explicit in the files, audit scrutiny revealed that the Company after making its first request in September 2008, did not follow-up its request with LTSBL at all in the last seven years till date (November 2016). The Company claimed (April 2016) that its participation in the project was limited to declaring itself as the project promoter. But, the stance taken by the Company was contradictory to its earlier decision to offer these services only on chargeable basis. Consequently, the Company could not collect the entitled service charges for the various services rendered.

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45 The JV company was to establish and to maintain a ship yard-cum-minor port complex in an area of 1,196 acres in Kattupalli, Thiruvallur district, taken over from the Company.

In this connection, Audit noticed that the Company had been extending similar support services to many JV partners to enable them to obtain necessary statutory clearance/approvals. For rendering such services, the Company had been collecting service charges ranging from one to two *per cent* of the project cost (excluding the value of the land) by signing separate service agreement with JV partners. A comparative statement of services rendered to other JV companies on chargeable basis, *vis-a-vis* services rendered free of cost to LTSBL is detailed in **Annexure-12**. From the Annexure, it could be seen that the service charges actually collected from other JV companies ranged between ₹ 0.34 crore to ₹ 20 crore. However, the Company failed to collect reasonable service charge for the services provided to LTSBL, which resulted in loss of a minimum revenue of ₹ 46.65 crore (at the rate of one *per cent* of the total project cost of ₹ 4,665.38 crore excluding the land cost).

The Government endorsed (August 2016) the Company's views that the relevant applications on behalf of LTSBL were forwarded to declare that the applicant company *viz.*, LTSBL was the JV company of TIDCO. The reply is not convincing because the Company had been rendering similar services to all other JV partners only on this justification, but on chargeable basis. It is pertinent to note that the Board of Directors in the meeting held on 23 September 2016 had directed the Company to explore the possibility of recovering the service charges from LTSBL, which vindicated the audit stand that the service charges were to be collected from LTSBL.

Tamil Nadu Civil Supplies Corporation

3.2 Diversion of PDS paddy

Diversion of paddy, procured under Public Distribution System for State Level Scheme resulted in availing of subsidy of ₹ 14.55 crore from the Government of India without entitlement, besides incurring extra expenditure of ₹ 3.19 crore

The Memorandum of Understanding (MOU) signed (November 2010) between the Government of India (GOI) and the Government of Tamil Nadu from the year 2009-10 onwards contained a clause that the State Government shall not utilise stocks procured for Central Pool under Public Distribution System (PDS) for any other State level schemes. Further, for extension of MOU for the year 2012-13, GOI circulated (August 2012) draft MOU, which also contained the above clause.

As a part of market intervention activities to control the price of rice, the Government of Tamil Nadu, vide G.O. (Ms) No.33 dated 19 March 2013, permitted Tamil Nadu Civil Supplies Corporation (Company) to float tender to purchase 10,000 MT of Fine Rice and sanctioned a sum of ₹ 25 crore from the Price Stabilisation Fund[46]. The procured rice would be sold by the Company

[46] Price Stabilisation Fund was constituted with the corpus of ₹ 50 crore by the Government of Tamil Nadu on 1 November 2011 as a measure of market intervention, for procuring select commodities that are prone to abnormal price fluctuations from season to season and selling them through co-operative outlets at cost price to the public.

through its dedicated Amudham Departmental Stores and co-operative retail outlets at a sale price of ₹ 20 per Kg. The Company floated (20 March 2013) a short tender for the purchase of 10,000 MT of Fine Rice Grade 'A' (Single Boiled) instead of Fine Rice, as decided earlier, by fixing the date of opening of tender as 27 March 2013. Subsequently, Government of Tamil Nadu directed (22 March 2013) to strictly adhere to the instructions contained in the Government Order dated 19 March 2013 and a corrigendum was issued by the Company on 23 March 2013 by changing the variety to Boiled Rice Fine (Double Boiled Rice)[47]. In response, seven tenderers had participated and three tenders were rejected due to non-fulfillment of the eligibility criteria prescribed in the tender. As per the approval of the Board Sub-Committee, the price bids of the remaining four tenderers were opened on 05 April 2013. M/s Manikanta Agro Tech, Warrangal was found to be L-1 with the quoted negotiated price of ₹ 25.74 per Kg of Double Boiled Rice and the validity of the price offer was up to 30 June 2013. The tenderers had also quoted for Single Boiled Rice, for which also M/s Manikanta Agro Tech was L-1 with a negotiated price of ₹ 28.89 per Kg.

Subsequently, during the meeting held on 23 April 2013, the Government decided to issue good quality of Single Boiled Rice by producing Rice through the Company's Modern Rice Mills (MRMs) from the paddy procured under Kharif Marketing Season (KMS) 2012-13, after cleaning and removing black rice by using sortex machine.

The Company intimated (4 June 2013) the Government that the evaluated landed purchase cost of Single Boiled Rice, based on the tender rate fetched, was ₹ 31.65 per Kg as against the selling price of ₹ 20 per Kg and there would be a loss of ₹ 11.65 per Kg. As an another alternative, the Company proposed for using the paddy procured from the Government of India (GOI) under the PDS and mill the same in its MRMs, which would cost ₹ 34.93 per Kg, stating that there would be no loss/gain considering the subsidy receivable from the GOI and it was concluded that the purchase of rice through tender might not be profitable. Meanwhile, the validity of the tender was over on 30 June 2013 and as such, the Company requested (31 July 2013) the Government for orders for dropping the purchase proposal. However, copy of approval, if any, received in this regard from the Government was not available on record.

Audit noticed that during the period 2012-13 and 2013-14, 15,444.327 MT of paddy procured under PDS was used for obtaining rice of 9,727.071 MT and this was sold in the open market at a sale price of ₹ 20 per Kg, for which subsidy amounting to ₹ 14.55 crore had been availed from the GOI. Subsequently, in April 2015, the Government had asked the Company to get clarification from the Food Corporation of India (FCI) as to whether the paddy procured by the Company could be utilised for the purpose of a State scheme *i.e.*, open market intervention sale. FCI clarified (April 2015) that paddy procured under Central Pool cannot be utilised for State schemes and if utilised, the State Government cannot claim subsidy. Therefore, the Company had now become liable to refund the subsidy amount of ₹ 14.55 crore to GOI, which was wrongfully availed.

[47] Double Boiled Rice is the superior quality of boiled rice with more refinement.

Audit observed that despite being aware that the paddy procured under Central Pool for PDS cannot be diverted for State schemes as per the clause contained in the MOU entered into with the GOI, the Company diverted (June 2013) the PDS paddy for the State scheme resulting in wrongful availing of subsidy of ₹ 14.55 crore. The Company requested (July 2015 and August 2016) the Government of Tamil Nadu to take up the issue with the GOI to accord permission for repayment of the subsidy claimed and the same was pending (September 2016).

Audit observed that the Company would have incurred an expenditure of only ₹ 31.65 per Kg by procuring the rice directly from the supplier whereas the Company had actually incurred an expenditure of ₹ 34.93 per Kg by using the paddy procured under PDS and processing the same in its MRMs, which incidentally resulted in extra expenditure of ₹ 3.19 crore (₹ 34.93- ₹ 31.65 X 9,727.071 MT). Further, the purpose of creation of Price Stabilisation Fund was also not achieved and the poor people were deprived of PDS rice in the Fair Price Shops to the extent of Rice made out of diverted quantity of paddy.

The matter was referred to the Company and the Government in July 2016; their reply was awaited (November 2016).

Tamil Nadu State Transport Corporation (Coimbatore) Limited

3.3 Avoidable loss of revenue

Incorrect rejection of a valid tender resulted in loss of potential revenue of ₹ 9.58 crore

Procurement of materials and services by the State Public Sector Undertakings (PSUs) in Tamil Nadu are regulated by the Transparency in Tender Act, 1998 (Act) and Tender Rules, 2000 (Rules). As per Section 10.3 of the Act, tender accepting authority may negotiate with the lowest/highest tenderer (in case of revenue contracts), if the L-1/H-1 price was more/lower than the market price. In respect of two parts tender, the Rules provide for evaluation of the financial bids only when the bidder was technically qualified. Audit analysis of the management of the advertisement contract by Tamil Nadu State Transport Corporation (Coimbatore) Limited (Company), revealed the following:

In response to the Company's invitation (August 2013) for tenders for display of advertisements on buses for 33 months, two bids (valid for 90 days from the opening of the bids) were received (August 2013). The tender committee opened the technical bids on 11 September 2013 and noted that both the bidders were technically qualified[48] as they had furnished the required certificates for technical qualification. Therefore, the tender committee opened the financial bids on 1 October 2013. The analysis of the financial bids revealed that the rates of M/s. Uni Ads Limited, Thirupathy (Uni Ads), which quoted a rate of ₹ 1,010 per bus per month, was more than the second bidder's

[48] The technical qualification stipulated that the bidder should be a registered firm and have at least one year experience in advertisement field at the time of participation in the bid.

rate of ₹ 885 as well as the existing contract rate of ₹ 770. However, the committee recommended negotiating with Uni Ads for further increase in the rates. But, Uni Ads expressed (24 December 2013) its inability to increase the rates as it had already quoted the highest bid. However, the Company cancelled (February 2014) the tender attributing that the authenticity of their registration and experience certificates could not be verified during its spot visit to the office of Uni Ads on 17 January 2014.

In this connection Audit observed that:

- Uni Ads had forwarded necessary proofs of their performance in the field of advertisement since 1982 certified by Andhra Pradesh State Road Transport Corporation and by South Western Railways from 2011. Since the Company had recorded that both the bidders were technically qualified, based on the verification of certificates produced for technical qualification, rejection of the bids of Uni Ads citing that their credentials were not verifiable was unjustified. Moreover, the Company attempted verification of the credentials only on 17 January 2014 after expiry of validity of tender by December 2013, which was in violation of the tender conditions.
- An independent verification of the annual financial reports of Uni Ads by Audit revealed that it was an advertisement company with an income of more than ₹ 40 crore in two years up to 2013-14 and net worth of ₹ 12.98 crore as on March 2014. Therefore, reputation of Uni Ads in the field of advertisement was beyond any doubt.
- Though negotiation with the H-1 was to be held only when the rates offered were lower than the market rate, the Company attempted negotiation with Uni Ads despite quoting rates at 31 *per cent* more than the existing contract rate which was un- warranted.

Subsequent contracts finalised during the period from October 2013 to June 2016 could fetch revenue from advertisement ranging only from ₹ 550 to ₹ 825 against the offer of ₹ 1,010 per bus per month submitted by Uni Ads. Thus, the injudicious rejection of valid tender led to loss of potential revenue of ₹ 9.58 crore (**Annexure-13**).

The Company replied (August 2016) that rejection of the offer of Uni Ads was due to its failure to provide proof of credentials. The reply was not convincing because the Company had concluded that the bidder was technically qualified based on the verification of the certificates submitted by the bidder. Even if the Company had any doubt on the credentials during technical evaluation of the bid, it could have done the same before opening of price bids. Therefore, the action of the company to verify the credentials of H-1 after the validity period was not only unwarranted but also arbitrary when the firm had already been declared technically qualified. In the circumstances, accountability for the loss of revenue needs to be fixed.

The matter was referred to the Government in July 2016; their reply was awaited (November 2016).

IT Expressway Limited

3.4 Avoidable expenditure

Delay of two years in drawal of the loan sanctioned by the Government at lower rate of interest resulted in additional interest cost of ₹ 5.89 crore

IT Expressway Limited (Company) was formed in April 2003 as the subsidiary company of Tamil Nadu Road Development Corporation Limited (TNRDC) and is engaged in constructing and maintaining the express way between Madhya Kailash and Siruseri within Chennai.

The express way project was taken up for execution in 2004. For its execution, the Company availed (between 2004 and 2011) a total term loan of ₹ 210 crore from two banks[49] and three[50] sister Public Sector Undertakings (PSUs), which carried interest of 11.5/12[51] *per cent per annum* for part funding of the project cost of ₹ 413 crore. To wipe out these high cost loans, the Company requested (November 2011) the Government for sanction of a loan of ₹ 160 crore.

In the meantime, TNRDC also separately approached (November 2011) the Government for a loan of ₹ 17 crore for carrying out its own development works. Based on these requests, the Government issued an order sanctioning (February 2013) loan of ₹ 177 crore (₹ 160 crore to the Company and another ₹ 17 crore to TNRDC) at an interest rate of 8 *per cent per annum* subject to the additional condition that TNRDC should forego its claim from the Government for compensation[52] for shortfall in toll collection for the period upto March 2014. The loan was to be drawn by these companies in the financial year 2012-13.

TNRDC agreed (July 2014) for all the conditions put forth by the Government in its sanction order of February 2013 and requested to release the entire loan of ₹ 177 crore. Based on this request, the Government revalidated (3 September 2014) the earlier sanction of the loan and the Company drew this amount in two tranches in January (₹ 150 crore) and March 2015 (₹ 10 crore) and repaid the loans of banks and PSUs in February/March 2015.

In this connection, Audit observed that the Company made (March 2013) request for sanction of loan exclusively to itself, but did not follow it up with the Government. This failure resulted in the Government sanctioning loan both to the Company and TNRDC by way of a single order. Moreover, there was a delay of more than a year on the part of the Company and TNRDC in accepting the conditions stipulated by the Government in its Order of June 2014 and further delay of five/six months in drawal of loan after its revalidation in September 2014, which resulted in additional interest cost of

49 Indian Bank (₹ 50 crore), Vijaya Bank (₹ 65 crore).

50 Tamil Nadu Industrial Development Corporation Limited (₹ 25 crore), Tidel Park Limited (₹ 5 crore) and Tamil Nadu Urban Finance and Infrastructure Development Corporation Limited (₹ 65 crore).

51 Excepting a loan of ₹ 65 crore from Tamil Nadu Urban Finance and Infrastructure Development Corporation Limited, a sister PSU, which carried an interest of 6 *per cent per annum*.

52 Estimated to be at ₹ 102.68 crore and recoverable in terms of the concession agreement entered into in December 2000 between Government and TNRDC.

₹ 5.89 crore (**Annexure-14**).

The Government replied (October 2016) that it was the considered decision of its BOD not to withdraw claim for toll loss by TNRDC, as the same would affect the image of TNRDC for private funding of future projects. The reply was not convincing because TNRDC was aware (July 2012) that their claim was doubtful of recovery from the Government. Therefore, delaying the drawal of the loan under the pretext of withdrawal of the unrealisable claim was not a prudent financial decision.

Tamil Nadu Minerals Limited

3.5 Infructuous expenditure

Venturing into the new variety of quarry, without assessing the marketability, rendered the expenditure of ₹ 1.22 crore incurred for quarrying operation infructuous

Tamil Nadu Minerals Limited (Company) is engaged in production and marketing multi colour granite blocks. The granite blocks are extracted by the Company from the mines belonging to the Government by obtaining prospecting license and submitting the mining plan for extraction during the lease period. For commercial viability of a mining plan, it is essential that marketability and likely price be ascertained, especially when the product is new.

With a view to operate a new quarry at Vattamalai village in Tiruppur district, the Company conducted (June 2002) a geological study, which revealed that the mining area contains large reserve of pink granite, but the marketability of this granite was to be studied based on the polished sample. Following the grant (December 2011) of licence for operation of quarry for 30 years, the Company conducted (August 2013) a review meeting, in which it was decided to obtain samples from the quarry to examine its marketability before commencement of the quarrying operation. The Divisional Office also opined (September 2013) that the operation of the quarry could be undertaken only after analysing the price for the granite, as this was a new material in the granite market. However, without conducting such a market study, the Managing Director (MD) directed (September 2013) the Divisional Office to commence the quarrying work. Between February and April 2014, 96.80 cubic metre of granite was extracted by incurring a total expenditure of ₹ 1.22 crore towards operation of the quarry.

In the meantime, the Company invited tenders (between October 2013 and August 2014) for sale of granite of this quarry, against which there was no response from any buyer. The Divisional Office reported (July 2014) that the prospective buyers had opined that this variety contained certain round spots, which may not sustain the polishing process and hence, the operation of the quarry may not be economical. Based on this report, head office ordered (August 2014) to close the quarry from 14 August 2014. The efforts to tender the granite even after closure of the quarry on two occasions (July and October 2015) also turned futile.

In this connection, Audit observed that right from the stage of first geological report of June 2002 upto the stage of operating this quarry departmentally, there were opinions to operate the quarry after ascertaining the price for polished sample in the market to ensure commercial viability of the quarry. But, in contravention of these opinions, MD ordered operation of the quarry without ascertaining the marketability of the polished sample of the new type of granite. Failure of successive tenders between October 2013 and October 2015, to create interest for purchase of the granite blocks of this quarry proved that there was no market for this type of granite. Thus, the MD's direction to start quarrying operations in haste without assessing the marketability of its granite resulted in infructuous expenditure of ₹ 1.22 crore for quarrying operation.

The Government replied (November 2016) that in granite industry, huge development expenditure are bound to be incurred for any new quarry and the said quarry would become profitable once the market for this kind of granite improved. The reply was not convincing because the new quarry was operated setting aside the opinions to conduct market study before venturing into this quarry. Further, after stoppage of quarrying work in August 2014, the Company could neither sell the granite extracted nor had any plan till date (November 2016), to reopen the quarry, which indicated that there was no possibility of recovering the amount spent already.

Tamil Nadu Small Industries Development Corporation Limited

3.6 Loss of revenue

The Company's failure to adopt the price for sale of industrial plots as per the Government directives led to revenue loss of ₹ 1.21 crore

Tamil Nadu Small Industries Development Corporation Limited (Company) allots industrial plots within its estate to entrepreneurs on outright sale basis. Upto the year 2010-11, the Company sold the industrial plots at the prices fixed on case to case basis[53]. From the year 2010-11 onwards, the Government directed (June 2013) the Company to adopt the selling price as the highest of either the guideline value for the relevant year or increase[54] over the price fixed for the same industrial estate in the previous year.

Audit noticed (August 2015) that the Company sold (November/December 2014) 2.772 acres of land in Thirumudivakkam Industrial Estate at a price of ₹ 12.07 crore (at ₹ 4.36 crore per acre)[55]. Audit analysis revealed that the price was fixed by the Company based on the guideline value for the year 2013-14 instead of 2014-15 as detailed below:

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[53] The method included notional increase over the previous year price, price based on the guideline value published by the Registration Department, Government of Tamil Nadu for the respective areas and the relevant years, price fixed through tender, *etc*.

[54] The increase was to be at 25 *per cent* for well developed industrial area, 15 *per cent* for lesser developed industrial area and 10 *per cent* for least developed industrial area, which have been classified as such by the Company itself.

[55] The guideline value of ₹ 1,000 per sq.ft. is equivalent to ₹ 4.36 crore per acre for 43,560 sq.ft.

Table 3.1 Details of guideline value and selling price of land

Sl. No.	Particulars	Guideline value for		Selling price to be fixed for 2014-15 based on guideline value of 2014-15	Selling price fixed for 2014-15	Difference
		2013-14 (fixed in January 2013)	2014-15 (fixed in November 2014)			
1.	Guideline value per sq.ft. (in ₹)	1,000	1,100	1,100	1,000	100
2.	Guideline value per acre of 43,560 sq.ft. (₹ in crore)	4.356	4.792	4.792	4.356	0.436
3.	For 2.772 acres (₹ in crore)	---	---	**13.28**	**12.07**	**1.21***

(* Difference of ₹ 43,56,000 per acre X 2.772 acres)

In this connection, Audit observed that though the Government directives of June 2013 mandated the Company to adopt highest of the guideline value for the relevant year or a notional increase over the previous year, the Company failed to fix the price for the year 2014-15, taking into account the guideline value for the year 2014-15. Consequently, the Company lost revenue of ₹ 1.21 crore.

The Government replied (August 2016) that since the selling price for the year 2014-15 was fixed by the Company in May 2014, the guideline value of ₹ 1,000 per sq.ft. prevailing at that time was adopted by it. The reply was not convincing because the sale of plots during 2014-15 was made only in December 2014, *i.e.*, after revision of the guideline value in November 2014. Therefore, the Company should have adopted the latest guideline value of ₹ 1,100 per sq.ft instead of ₹ 1,000 per sq.ft.

Electronics Corporation of Tamil Nadu Limited

3.7 Unproductive investment

The Company lost potential revenue of ₹ 1.07 crore and also incurred wasteful expenditure of ₹ 13.95 lakh due to its failure to maintain the building in a rentable condition

The Electronics Corporation of Tamil Nadu Limited (Company) purchased (September 2007) land and building[56] in Thiruvanmiyur at Chennai at a total cost of ₹ 2.84 crore for future construction of building in the premises. Pending construction of office building, the Company leased out (March 2008) the premises for a monthly rent of ₹ 3.54 lakh. After vacation of the premises by the lessee in June 2010, the premises were not leased out till June 2016.

The audit scrutiny of the records revealed that the Company's advertisements

[56] Land measuring 12,893 sq.ft. and building measuring 6,750 sq.ft.

in June 2010 and September 2011 did not evoke adequate response from the prospective occupants. A single offer for a monthly rent of ₹ 2.02 lakh per month received in October 2011 was not accepted by the Company citing that it was lesser than the previous rent. Subsequent to this, the Company stopped advertising for renting of the premises without any recorded reasons.

It was further observed that though the premises is located in a prime locality in Chennai and surrounded by commercial and IT companies, the Company failed to maintain the premises required for commercial usage, as it was evident from the fact that (i) the Company did not pay electricity charges on due dates and the supply remained disconnected as of May 2012 and (ii) kept the building surrounded by bushes and thorns. The State Public Works Department officials, who visited (April 2014) the premises, reported that the building was poorly maintained preventing even the entry into the premises (illustrative photos of poor maintenance are given in **Annexure-15**). Audit scrutiny revealed that there were no recorded reasons for non-maintenance of building, which was indicative of Company's failure resulting in loss of potential revenue.

Audit had already pointed out (April 2013) the Company's failure to utilise the building commercially on rental basis and the Company assured (October 2014) to explore possibilities of renting of the premises. However, continued poor maintenance led to property remaining idle for more than six years resulting in potential loss of rental income of ₹ 1.07 crore (calculated at the rate of ₹ 30 per sq.ft. per month offered in October 2011 by a tenant). Besides the loss of potential revenue, the Company had also incurred ₹ 13.95 lakh towards security arrangements of the premises from July 2010 to May 2016, which could have been avoided had the premises been rented out.

The Government replied (August 2016) that the Company had issued (July 2016) a letter of acceptance to a private tenant for occupation of the premises on "as is where is condition" for a rent of ₹ 1.63 lakh per month.

Thus, the Company had acquired the premises for its future use, but it could not use the same by putting in place any plan for its use. Moreover, due to its neglect of premises, the building could not be rented out for the past six years leading to loss of revenue of ₹ 1.07 crore. Finally, the Company could only rent out the premises for a lesser amount of ₹ 1.63 lakh per month (in July 2016) against the fair rent of ₹ 3.58 lakh per month as calculated by PWD after market survey, due to poor maintenance of the building, which was not beyond its control.

Tamil Nadu Transmission Corporation Limited

3.8 Avoidable extra expenditure

TANTRANSCO cancelled a valid tender due to inclusion of a faulty tender condition, which resulted in its becoming liable for avoidable extra expenditure of ₹ 10.29 crore

Tamil Nadu Transmission Corporation Limited (TANTRANSCO) decided (September 2010) to float a tender for civil and electrical works relating to establishment of 230/33 KV Sub-station (SS) along with six storey office complex within the TNEB headquarters at an estimated cost of ₹ 14.14 crore. In response to the above tender (September 2010), the price bids received from three technically qualified bidders were opened in December 2010 and the L-1 was decided (February 2011) in favour of M/s RPP Selvam Infrastructure Private Limited (RPP) for a quoted price of ₹ 16.11 crore.

When the Letter of Acceptance (LOA) was issued (February 2011) for a contract price of ₹ 16.11 crore including service tax, RPP did not accept the LOA stating (March 2011) that as per the clauses of tender, the service tax (which is estimated to be ₹ 54.75 lakh) was to be reimbursed separately. As TANTRANSCO did not accept the plea of RPP stating that the quoted price was inclusive of all statutory levies as per Clause 2.14.0 of the tender condition, it decided (June 2011) to cancel the tender and also modify the tender conditions making service tax exclusive of the contract price.

After enhancement (December 2011)[57] of the scope of work, TANTRANSCO awarded (November 2013) the contract for a value of ₹ 46.70 crore. Against the scheduled completion of the work in 24 months from the date of handing over of the site (June 2014), the contractor was able to complete the work only to the extent of ₹ 7.34 crore (15.72 *per cent*) by the end of June 2016. The slow progress of the work was mainly attributable to not handing over the entire portion of the work site to the contractor by TANTRANSCO till date (November 2016).

The audit analysis of the tender floated in September 2010 revealed that the Clause 2.14.0 of the first tender stipulated that the bid prices should include all taxes and duties. But, Clause 3.36.0 of Section-3 of the same tender stipulated that the service tax as applicable would be admitted upon production of documentary evidence. Thus, the tender Clause stipulating separate reimbursement of service tax based on documentary evidence was faulty, which enabled RPP to claim separate reimbursement of service tax. Considering this faulty Clause, TANTRANSCO modified (June 2011) its tender conditions in subsequent tenders for making the payment of service tax over and above the contract price as per the statutory requirements.

Thus, due to faulty terms and conditions of the contract floated in September 2010, the tender was cancelled and the same work was awarded after a delay of two-and-half years (from June 2011 to November 2013) at the escalated prices. The Audit compared the rates obtained in the tender of September 2010 and the tender of November 2012 in respect of the similar items, which revealed that TANTRANSCO was liable for avoidable extra expenditure of ₹ 10.29 crore.

The Government replied (November 2016) that the decision to cancel the first tender was taken to safeguard the financial interest of TANTRANSCO and the same was approved by its Board Level Tender Committee (BLTC). The reply was factually incorrect because the decision to cancel the first tender was taken by BLTC, mainly because of faulty tender conditions of the first tender, which was unwarranted.

[57] This includes providing centralised air-conditioned system in the office premises, glass cladding work, *etc*.

3.9 Infructuous expenditure due to ill planning

The Company abandoned the civil works worth ₹ 7.35 crore carried out at the original alignment and realigned the transmission lines, which resulted in the expenditure becoming infructuous

Tamil Nadu Transmission Corporation Limited (TANTRANSCO) is engaged in erection of transmission lines of 110 KV and above for evacuation of power. At the time of planning of transmission routes, TANTRANSCO was required to conduct route survey in detail for selection of most suitable and least expensive route after considering various alternative routes.

TANTRANSCO accorded (February 2013) sanction for establishment of 400 KV Sub-station (SS) at Thiruvalam village in Vellore district along with 400 KV Double Circuit (DC) (two way transmission lines) transmission lines for a distance of 273 KMs between the above SS and the Mettur Thermal Power Station-III (MTPS-III)[58]. The transmission line work relating to phase-I was awarded (August and October 2013) on turnkey basis to Larsen and Toubro Limited (L&T) at a lumpsum price of ₹ 291.97 crore.

While the sub-setting[59] work of the Phase-I in 97 locations was under way with financial progress of ₹ 7.35 crore (January 2014), TANTRANSCO decided (March 2014) to stop the work and realign transmission work closer to the proposed 400 KV SS at Palavadi in Dharmapuri district. TANTRANSCO estimated that the envisaged realignment would result in reduction in route length of 35 KMs with cost of savings of ₹ 77.15 crore. Accordingly, L&T stopped the work and completed the same in the realigned area in May 2015.

In this connection, Audit observed that prior to the commencement of the above works, TANTRANSCO was pursuing its proposal (April 2012) to construct a new 400 KV SS at Palavadi. For identification of required land for construction of SS, the Electricity Distribution Circle, Dharmapuri carried joint inspection along with the revenue authorities and requested (April 2012) the District Collector, Dharmapuri to alienate about 22.23 hectares of land. Based on the recommendations (January 2013) of revenue officials of the Dharmapuri district, Government issued (December 2013) alienation order for 22.23 hectares of land in Palavadi in favour of TANTRANSCO. As these facts were well known to TANTRANSCO prior to issue of LOA to L&T in August 2013, it could have planned to route 400 KV DC line closer to Palavadi SS at the first instance itself. Instead, TANTRANSCO had instructed L&T to re-route the work only in January 2014, which resulted in abandoning of the civil works worth ₹ 7.35 crore and rendering the expenditure infructuous.

Thus, the belated action of the TANTRANSCO in giving necessary directions to L&T about realignment of the transmission lines along with the proposed location of the Palavadi SS, which was already known to it at the time of the award of work in August 2013, resulted in infructuous expenditure of ₹ 7.35 crore.

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[58] This thermal station is owned by Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO).

[59] Laying RCC base for erection of towers carrying transmission lines.

The Government replied (November 2016) that the direction to L&T was given in January 2014 after TANTRANSCO had accorded administrative approval for establishment of SS at Palavadi. The reply was not convincing because TANTRANSCO, based on its field inspection in April 2012 was aware of the proposed location of the Palavadi SS and the revenue authorities had also recommended alienation of land required for erection of SS in January 2013 itself. Hence, the realignment could have been made at the time of planning of the transmission lines, *i.e.*, before issuing work order to L&T in August 2013.

Tamil Nadu Generation and Distribution Corporation Limited

3.10 Avoidable extra expenditure

Unwarranted delays in rectification of the rotor fault in hydro power station led to loss of generation of 80.04 MUs. The resultant purchase of the same from private sources led to additional extra expenditure of ₹ 44.74 crore

Sholayar Hydro Electric Project (SHEP)[60] is an irrigation based power house, in which the power is generated only when the water is let out for irrigational needs of Coimbatore district. The peak period of irrigation is from June to December and hence, generation is high during this period. The Unit-II of PH-I (with generation capacity of 35 MW) of SHEP tripped on 12 January 2013, resulting in rotor earth fault in the unit. Based on the offer of ₹ 30.31 lakh received (February 2013) from a single tenderer for rectification of the fault, TANGEDCO issued Letter of Authority (LOA) to the contractor[61] on 14 May 2013. Against the scheduled completion of rectification work by 9 August 2013, the contractor completed the work and re-commissioned the unit on 30 November 2013. Thus, the work was completed in 173 days against the scheduled completion in 60 days. During the shutdown of Unit-II from July to November 2013, 10,438 Million Cubic feet of water was let out from the dam for irrigation without generation of electricity resulting in loss of generation of 80.04 Million Units (MUs). Audit analysis of the delays in rectification of the unit revealed the following:

- Though, TANGEDCO decided (February 2013) to carry out the rectification of rotor fault on priority to avoid surplusing of water during the monsoon period, *i.e.*, June to November and issued (10 February 2013) tender with short notice of only seven days, it took three months (upto May 2013) for finalisation of the single offer without any recorded reasons, which resulted in missing the opportunity of completing the rectification work before the start of monsoon in June.
- After issue of LOA in May 2013, TANGEDCO further delayed handing over of site by one month upto 11 June 2013 and during execution of work

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60 SHEP is situated in Coimbatore district and is under the control of Kadamparai Generation Circle of TANGEDCO.

61 M/s Coral Rewinding India (Private) Limited, Erode.

took 37 days for approving the cost of additional works[62]. These unjustified delays further delayed completion of work by another two months.

- During execution of work, TANGEDCO recorded (September 2013) that the contractor was responsible for the unwarranted delay of three months even in reporting the unsuitability of the dismantled bearing for re-usage. But, it allowed (December 2013) extension of time of 144 days after completion of the work in November 2013. This indicated that TANGEDCO failed to efficiently manage the contract even after knowing the urgency of work.

Thus, unwarranted delays from the stages of finalisation of tender upto completion of the work led to avoidable loss of hydro generation of 80.04 MUs. As the average cost of generation of hydro power in PH-1 of SHEP was only ₹ 0.21 per unit, against the average purchase cost of ₹ 5.80 per unit sourced from private power producers during 2013-14, the above loss of generation with resultant purchase of equal quantity of power from private sources led to avoidable extra expenditure of ₹ 44.74 crore[63] to TANGEDCO.

The Government replied (November 2016) that utilisation of additional days was on account of time taken for assessment of the fault, deciding the process of rectification at the pre-tender stages, following due process for tender finalisation and deciding additional scope of work during execution, *etc*. The reply was not convincing because TANGEDCO had prescribed the maximum time limit of only 60 days for finalisation of all types of tenders including pre-tender activities. Therefore, consumption of additional days prior to and during tender stages was not justified. Thus, failure to execute the rectification work in time by TANGEDCO, which has rich experience in operation of hydro power stations for more than 40 years, without factoring the onset of monsoon resulted in additional expenditure of ₹ 44.74 crore.

3.11 Irregular payment

Two private producers supplied power in excess of the contracted quantity without any authorisations as required in the Power Purchase Agreements. However, TANGEDCO paid ₹ 11.45 crore for such excess quantity, which was violative of contractual terms

TANGEDCO entered (June 2013) into two Power Purchase Agreements (PPA), one with Arkay Energy (Rameswaram) Limited (Arkay) for purchase of 110 MW[64] of power and another with Sai Regency Power Corporation Private Limited, Ramnad (Sai) for purchase of 5 MW[65] of power from 1 June

62 These include (i) rectification on pole number-8 and replacing top and bottom jumpers in this pole, (ii) removal of jammed pins and (iii) re-insulation of damaged coils.

63 Being the difference of ₹ 5.59 per unit (average cost of purchase is ₹ 5.80 per unit and average cost of generation of hydro power at PH-1 is ₹ 0.21 per unit) X 80.04 MUs.

64 The contracted quantity of power was increased to 120 MW with effect from 1 November 2013 and the PPA was also extended upto 31 July 2014.

65 This quantum of procurement was increased 10 MW with effect from 20 July 2013.

2013 to 25 May 2014. Both the agreements included similar terms and conditions of purchase stipulating, *inter alia*, that TANGEDCO would accept power only upto 10 *per cent* over and above the contracted quantity. For any supply of power within 100 to 110 *per cent,* TANGEDCO will accept the quantum and make payment, provided the supply was made with the specific prior approval by its load despatch centres.

Audit scrutiny (July 2015) of the files relating to purchase of power from Arkay and Sai revealed that Arkay supplied 701.15 Million Units (MUs) of power, which was 102.76 *per cent* of the contracted quantum of 682.32 MUs for eight months from September 2013 to June 2014. Similarly, Sai supplied 22.54 MUs of power, which was 112.16 *per cent* of the contracted quantity of 19.80 MUs (equivalent to the contracted quantum of 5 MW/10 MW) during the three months from July to September 2013. TANGEDCO restricted the payment to 110 *per cent* of the contracted quantity to Sai during the above months. Thus, TANGEDCO had paid ₹10.36 crore to Arkay and ₹ 1.09 crore to Sai for the excess supply of power.

In this connection, Audit observed that:

- The excess supplies made by Arkay and Sai were without any specific authorisations from the Load Despatch centres of TANTRANSCO, as required in the PPA. Despite the failure of the suppliers to obtain specific prior authorisation for such excess supply of power, TANGEDCO paid the value for supply amounting to ₹ 11.45 crore, which was in violation of the terms and conditions of PPA.
- For similar supply of 10 *per cent* of power more than the contracted quantity of 30.9 MW by another private power supplier,[66] TANGEDCO had denied (September 2013) the payment of ₹ 12.68 lakh for the excess supply of 2.31 lakh units, stating that the same was made without approval by it.
- TNERC had already held (July 2015) that if the compensation is allowed for injection of additional power into the grid without any authorisation, it would become a bad precedent, which might seriously affect the grid discipline and the generators would tend to supply power without approval whenever such additional generation was available with them.

Thus, payment of compensation to Arkay for supply of excess power was in violation of terms of agreement and also against the TNERC's directions.

The Government endorsed (September 2016) TANGEDCO's reply that the suppliers had been provided an option in the PPA to supply power upto 10 *per cent* over and above the contracted quantum and hence, the payment was in order. The reply was not convincing because the conditions of PPA clearly stipulated that for any supply of power upto 10 *per cent* over and above the agreed quantum, the suppliers would get payment provided that the same was with specific authorisation by TANGEDCO. Hence, the payment for excess quantity of power without specific authorisations by TANGEDCO was against the provisions of terms and conditions and was irregular.

[66] Kamachi Sponge and Power Corporation Limited, Chennai.

3.12 Avoidable expenditure

TANGEDCO made avoidable payment of ₹ 3.74 crore towards price variation due to delay in processing of tender for purchase of Aluminium Conductors

TNEB Limited, directed (June 2012) its subsidiaries, *viz*., TANGEDCO and TANTRANSCO to finalise the tenders for all purchases and supplies invariably within 90 days to ensure timely completion of supplies and works and to avoid possible cost escalation. In the same order, it also stipulated the time frame for each activity involved in the tender process.

Audit, however, noticed (September 2015) that a tender floated by TANGEDCO on 8 March 2013 for purchase of 25,000 kilometres (Kms) of Aluminium conductors was actually finalised (January 2014) and Purchase Orders (PO) to 21 suppliers were issued between 4 March 2014 and 10 July 2014. Thus, TANGEDCO took an overall period of one year for finalisation of tender against the time limit of 90 days. As per the terms of the PO, the delivery of conductors was to be made within 6 ½ months from the date of its receipt by the suppliers. The suppliers were also entitled for price variation for change in the basic price of Aluminium rod assumed in the quotation. All the 21 suppliers completed the supplies of 32,301.614 Kms[67] of conductors between 4 April and 20 December 2014 and obtained a total price escalation of ₹ 6.16 crore.

Audit analysis of the tender revealed that:

- After floating the tender in March 2013, the technical and commercial bids of 27 bidders was first opened only on 17 August 2013. After protracted internal discussions on reconsideration of the offers of the new entrants, the price bids were finally opened on 9 December 2013. Thus, TANGEDCO took eight months for opening of the tender against the permitted time limit of 60 days as per the directions of TNEB issued in June 2012.

- There was a delay of 26 days in approval (30 January 2014) of the tender opened on 2 December 2013, involving a total period of 52 days for its approval against the permitted time limit of 26 days mentioned in the TNEB's directions.

- After approval (30 January 2014) of the tender and the draft POs by the Board of Directors of TANGEDCO, there were further delays ranging from 14 to 142 days in issuing (from 4 March 2014 to 10 July 2014) the POs to all 21 firms. This was far in excess of the time limit of only three days fixed in TNEB's proceedings for issuing the PO after its approval. Audit verification of the files revealed that there was no justification for this delay, which indicated that the same was avoidable.

In this connection, Audit observed that before floating the above tender, TANGEDCO decided (March 2013) to issue short tender notice of 15 days against the normal time of 30 days on the plea that the ground stock/pipeline

[67] This is equal to tendered quantity of 25,000 Kms *plus* 25 *per cent* as per the approval of the tender committee.

stock (10,105 Kms) of Aluminium conductors would cater only to two months requirement. TANGEDCO, however, delayed in (i) opening of bids called for in March 2013 by eight months, (ii) according approval for finalisation of tender by 23 days and (iii) issuing POs upto 142 days. Though, short tender notice citing urgency was floated, the intended purchase could not be made in time.

The suppliers were entitled for price escalation from the due date for submission of bids. Had TANGEDCO adhered to the time limit of 90 days for finalisation of bids and issued the PO latest by 6 June 2013 by processing the tender issued on 8 March 2013, it could have procured the entire material by the end of December 2013 (after allowing 6 ½ months of supply period as stipulated in the PO) and allowed price escalation for overall period of 9 ½ months, *i.e.*, by 21 December 2013. However, the suppliers completed the supply between 4 April and 20 December 2014 and obtained a total price variation amounting to ₹ 6.16 crore in respect of 20[68] firms. Due to delay in processing the tender, TANGEDCO had to incur price escalation of ₹ 3.74 crore for the delayed period from January 2014 to December 2014, which was avoidable.

The Government endorsed (September 2016) TANGEDCO's reply that the delay in finalisation of tender was mainly on account of consideration of the offer by four new entrants, who participated in the tender. The reply was not convincing because there were unexplained delay upto August 2013 even in opening the tender and the delay upto 142 days in placing POs after its approval. Moreover, the apex entity had directed TANGEDCO to finalise all tenders invariably within 90 days without any exception.

3.13 Adherence to Pollution Control Norms in Thermal Power Plants of TANGEDCO

Introduction

3.13.1 Pollution in all forms *viz.*, air, water and sound cause extensive damage to the environment and adversely affect ecological balance, which results in unquantifiable loss to the nature. The Government of India (GOI), with an aim to protect environment has enacted various Acts/Rules such as the Water (Prevention and Control of Pollution) Act, 1974 (Water Act), the Air (Prevention and Control of Pollution) Act, 1981 (Air Act), the Environment (Protection) Act, 1986, Noise Pollution (Regulations and Controls) Rules, 2000 and Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008.

The State[69] and Central Pollution Control Boards enforce the provisions of the pollution related Acts/Rules of the GOI and monitor the pollution levels in the State.

[68] One firm did not claim price variation.

[69] Tamil Nadu Pollution Control Board (TNPCB) is the designated State agency to deal with pollution related issues of the State.

The GOI committed (2002) to the United Nations Framework Convention on Climate Change to reduce carbon emission intensity by 20 to 25 *per cent* by the year 2020. Accordingly, the GOI announced (June 2008), a National Action Plan for Climate Change (NAPCC). The plan among others, suggested three ways for reducing emission levels in the thermal power plants, *viz.*, increasing efficiency of the plant, using clean coal technologies and switching to fuels other than coal.

The Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO), the power generating entity in the State had four[70] thermal power plants with a combined thermal generation capacity of 4,660 MW (as on 31 March 2016). As thermal plants have been classified under Red Category of highly polluting industries, requiring continuous monitoring, Audit examined the efforts made by the management of TANGEDCO to reduce the pollution levels and comply with the pollution control norms. Audit was conducted in three[71] thermal plants *viz.*, Tuticorin Thermal Power Station (TTPS), Mettur Thermal Power Station (MTPS) and North Chennai Thermal Power Station (NCTPS) and covered the period from April 2011 to March 2016.

Audit analysis revealed the following:

Operation of plants without consent of TNPCB

3.13.2 Under Section 21 of the Air Act, 1981 and Section 25 of the Water Act, 1974 and Rules made thereunder, the Tamil Nadu Pollution Control Board (TNPCB) was empowered to issue Consent For Operation (CFO) of the thermal plants. Before expiry of CFOs granted, the plants were required to renew their CFOs. Section 22A of the Air Act and Section 33 of the Water Act provided that wherever it was apprehended that emission of any air/water pollutant was likely to be in excess of the standards laid down by the State Board, it may, through the Court of law, restrain such person operating the plant from emitting such pollutants. It was noticed that though the three plants, MTPS, TTPS and NCTPS had applied for renewal of consent as per schedule, CFO was given only for MTPS and the new 600 MW units in NCTPS Stage II. In respect of TTPS and the old 210 MW units of NCTPS Stage-I, the applications submitted (March 2015) for TNPCB’s consent to operate the plants for the year 2015-16 was still pending (October 2016). TNPCB’s consent was pending due to not revamping the existing pollution control systems like Electrostatic Precipitators (ESPs) and not installing and connecting online continuous effluent monitoring systems with the TNPCB’s server. Thus, TANGEDCO was operating the plant without the consent of the TNPCB, which was against mandatory requirement as per Section 21 of the Air Act, 1981 and Section 25 of the Water Act, 1974. Due to these non-fulfillment of the mandatory requirement, TANGEDCO has made itself liable

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70 Ennore Thermal Power Station (ETPS), Tuticorin Thermal Power Station (TTPS), Mettur Thermal Power Station (MTPS) and North Chennai Thermal Power Station (NCTPS).

71 ETPS, which has already outlived its useful life and approved for scrapping, has not been considered for this audit.

for legal action by TNPCB as per Section 22A and Section 33 of Air Act and Water Act, respectively.

Air pollution

3.13.3 Thermal power plants which use coal as fuel are contributing to atmospheric pollution and greenhouse gases. Emissions that come from these plants include Gaseous emissions like Carbon Dioxide (CO_2), Sulphur Dioxide (SO_2) and Oxides of Nitrogen (NO_x) which lead to global warming. Suspended Particulate Matter (SPM), the fine dust that is emanated from the stacks[72] of power plants is a health hazard. In addition, the thermal plants also generate considerable quantum of fly ash and bottom ash. These emissions are formed due to the combustion process when coal is burned to produce heat. As controlling the emission of SPM/SO_2/NOx is an important responsibility of thermal plants, Ministry of Environment, Forest and Climate Change, (MoEFCC) GOI, had prescribed that SPM levels from stack should not exceed 150 mg/Nm^3 and the levels of SPM/SO_2/NOx for Ambient Air (AA)[73] should not exceed 60/50/40 µg/NM^3 respectively.

Figure 1: Stack emission from TTPS

The unit-wise yearly minimum, maximum and average SPM levels at stack as well as SPM/SO_2/NOx in AA during the period 2011-12 to 2015-16 as reported by the plants are given in **Annexure-16** and **17.** It could be seen from the Annexures that the SPM level at stack as well as at AA continued to be above the permissible norms fixed by MoEFCC in all the five units at TTPS and similar units[74] at MTPS and NCTPS. In this connection, Audit further observed that:

- The Units I, II and III of TTPS were designed to burn coal with 19 *per cent* ash content and ESP installed for extraction of ash was also designed accordingly. The actual ash content of the coal consumed was, however, more than 43 *per cent*, which resulted in continued high SPM levels in TTPS. Audit observed that the SPM levels reached the maximum of 2,500 mg/Nm^3 during February 2010 and the same was reported in the Report of the Comptroller and Auditor General of India for the year ended 31 March 2010. After revamping of the ESPs during 2009-10 and 2011-12 respectively, the SPM levels came down in Unit-I. But, these levels continued to be above norms. Audit further observed that Unit-II continued to spew SPM much above the norms as revamping of ESP in that unit was still pending (October 2016).

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72 A stack is a chimney through which gas containing SPM, CO_2, SO_2, NO_x is emitted into atmosphere.

73 Ambient Air refers to outdoor air in the surrounding environment of the thermal plant.

74 The old units I to IV at MTPS and units I to III at NCTPS.

- TNPCB, while issuing consent orders for TTPS insisted (2007) that the plant in addition to revamping of the ESPs, needed to install flue gas conditioning system for controlling SPM levels at the stack. But, the ammonia injection system to improve the collection efficiency of the ESPs and to reduce the SPM levels had not been installed despite submission of proposal in this regard in November 2006 and obtaining Administrative approval in March 2014 due to delays on the part of the management. Consequently, the units of TTPS continued to discharge SPM at very high levels.

The Government replied (November 2016) that they would carry out revamping work of ESP in Unit II along with capital overhaul in 2016-17.

- The annual average stack emission levels in NCTPS were reported to be within norms. But, the online data available with the TNPCB CARE AIR Centre[75] revealed that in NCTPS, the SPM standard exceeded the norms 46,917 times during 2014-16. Based on the test check of data relating to 2014-16, Audit found that the maximum SPM level recorded at every 15 minutes interval in the three Units I, II and III never exceeded 200 mg/Nm^3, which showed that the analyser at the plant was calibrated to record only upto the maximum level of 200 mg/Nm^3. After taking up the matter with TNPCB (September 2016), Audit was informed (September 2016) that it was the responsibility of the industry to provide quality data to TNPCB as it was only a monitoring body.

The Government replied (November 2016) that the maximum limit of 200 mg/Nm^3 was set by the manufacturer of the equipment and not by TANGEDCO. Audit, however, observed that since the levels were reported with reference to set parameters, the stated interference in recording data led to reporting of misleading results and therefore TANGEDCO needed to look into this issue seriously for taking immediate corrective action.

- Average yearly stack emission of SPM in MTPS exceeded the TNPCB's norms in Units II and IV and Units I and III in 2011-12 and 2012-13 respectively. Individual instances as per recordings in the TNPCB's CARE AIR Centre, showed that the excess over norms totalled 1,796 times during 2013-16. Though approval was accorded (October 2014) for replacement of 24 ESP fields in Unit-I at a cost of ₹ 12.24 crore to bring down the SPM levels to below 100 mg/Nm^3, the tender initiated for establishment of ESP fields was cancelled (June 2015) due to non-adherence to the technical specification by the bidders. Re-tender for the above work was still pending (October 2016).

The Government replied (November 2016) that technical consultancy for repairs and maintenance of all the units of MTPS would be taken up in a phased manner.

- The dust particles emitted while conveying coal include lead, mercury, nickel, tin, *etc*., the long-term exposure to which causes health problems. Dust extraction systems are, therefore, installed in the coal handling plants for extracting coal dust emanating from the conveyor chutes to prevent air

[75] Centre for Accessing Real Time Air Quality.

pollution. Due to ageing of dust extraction equipment installed in various places of coal handling in Units-I and II of MTPS, the SPM at wagon tippler area was ranging from 7.076 mg/m^3 and 11.062 mg/m^3 and in secondary crusher house belt feeder floor, it was upto 45.534 mg/m^3 as against the AA norm of 2 mg/m^3. A proposal to replace eight out of the 22 old dry cyclone system into the latest bag filter system[76] at a cost of ₹ 3.39 crore approved (September 2013) and included in the budget for 2013-14 was taken up only in 2015-16 and work was still in progress (October 2016). Consequently, the emission levels at the coal conveying area continued to be high without any remedy till date.

The Government replied (November 2016) that the work would be completed by the end of December 2016.

- Similarly at NCTPS, 24 dust extraction systems in the internal and external coal handling plants, which were installed prior to 2001 were already due for revamping. The renovation work taken up only in eight systems during 2014-15 was still incomplete (October 2016). The renovation of the balance 16 systems was yet to be taken up (October 2016), as a result of which, dust levels continued to be high in the coal handling area.

The Government replied (November 2016) that the proposal for renovation of the balance systems has been initiated and the work would be completed within a year.

- As per MoEFCC guidelines (November 2009), AA quality tests are to be conducted twice a week. The three thermal plants, however, did not comply with this requirement and conducted the AA quality tests only once a month. Thus, close monitoring of AA quality at the prescribed frequency had not been complied with by these plants.

The Government replied that the frequency of AA quality tests would be increased.

- The TNPCB stipulated (June 2014) installation of online continuous ambient air quality monitoring stations (CAAQMS) with uploading facility of data to TNPCB. It was observed that only in TTPS, continuous online AA quality monitoring system was installed and synchronised with TNPCB server (between June 2015 and June 2016). In MTPS and NCTPS, the CAAQMS, which were received in 2015, were yet to be erected and commissioned as of July 2016. Thus, the objective of installing CAAQMS, *viz.*, self monitoring by the plants to ensure compliance with prescribed standards, had been achieved only in one out of three thermal plants.

It was replied (October 2016) that the work of commissioning of the CAAQMS was in progress in the remaining two plants.

Generation of ash beyond permissible limits

3.13.4 TANGEDCO procures indigenous coal from Mahanadi Coalfields Limited and Eastern Coalfields Limited and imported coal (mostly of

[76] Cyclone system works by making use of centrifugal or gravitational force to separate dust from air stream. Once separated, the dust is removed to a hopper by gravity. Under bag filter system, filters are used to separate dust particles.

Indonesian origin) through tenders. The ash content of indigenous coal was upto 45 *per cent*, whereas in respect of imported coal it was only 4 to 12 *per cent*. The three thermal plants with a combined installed capacity of 4,320 MW consumed 82.71 million tonnes of coal (both indigenous and imported coal) and generated 25.81 million tonnes of ash during the period 2011-12 to 2015-16. In this connection, Audit observed that:

- During the above period, the plants emitted[77] 112.07 million tonnes of CO_2[78], 1.12 million tonnes of SO_2 and 3.33 million tonnes of NOx into the atmosphere. Therefore, for generation of one unit of electricity, the plants had emitted approximately one Kg of CO_2, 10 grams of SO_2 and 30 grams of NOx, thereby creating adverse impact on the atmosphere.

- To meet the requirement of NAPCC to reduce carbon emission, a cost-effective step would be to use clean beneficiated[79] coal. MoEFCC suggested (1997) that power plants located beyond 1,000 Kms from pitheads and those located in critically polluted areas/urban areas to use beneficiated/blended[80] coal with an ash content not exceeding 34 *per cent.* Use of blended/beneficiated coal was made mandatory with effect from January 2014[81]. As the three thermal plants were situated more than 1,000 Kms from the pit head, these were covered under this criteria. Audit noticed that these thermal plants neither used beneficiated coal nor installed facilities for blending of coal in the stock yards or conveyors, resulting in high quantum of carbon emission as also accumulation of un-burnt combustibles in bottom ash. During 2011-16, 1.45 lakh tonnes (valued at ₹ 55.72 crore) of un-burnt combustibles were accumulated as bottom ash in three plants.

The Government replied (November 2016) that feasibility for blending of coal was yet to be studied and that the indigenous and imported coal as received is either fed to the bunker or stacked separately. The fact, however, remains that the economies of using beneficiated/blended coal had not been worked out by TANGEDCO, due to its failure to comply with the mandatory directives of MoEFCC.

- Though Units I and II of TTPS were designed to handle coal with ash content of 19 *per cent*, the actual ash content of the coal consumed was upto 45 *per cent*. Consequently, the ash generated beyond the ESPs' maximum extraction capacity (equivalent to 4.59 lakh tonnes in these two units) was let out into atmosphere during the period 2011-12 to 2015-16 resulting in high SPM level in stack apart from the increased levels of SPM/SO_2 and NO_x in the ambient air.

The Government replied (November 2016) that the original equipment

77 Emission estimates theoretically calculated using the basic principles of combustion and operational conditions and considering carbon/sulpher/nitrogen components in Indian coal as 41 *per cent*, 0.41 *per cent* and 1.12 *per cent* respectively.

78 Central Electricity Authority CO_2 baseline database version 11.0 of April 2016.

79 Clean beneficiated coal is obtained after reducing the extraneous matter from the mined coal and/or by reducing the associated ash.

80 Blending of coal entailed mixing of low ash content imported coal with high ash content indigenous coal to ensure the required heat value and to generate lesser amount of ash in flue gas.

81 As per MoEF notification dated 2 January 2014.

manufacturer, BHEL had been requested in November 2014 to study the feasibility for carrying out improvements work in the ESPs for reducing the SPM level below 100 mg/NM^3.

Ash Disposal

3.13.5 MoEFCC directed (September 1999) gradual phasing out of dumping of fly ash on land and 100 *per cent* disposal of the ash to be achieved by the year 2009. TANGEDCO disposed of the fly ash by giving the same to cement manufacturing industries, brick units and units engaged in construction of roads, embankment, *etc*. Audit scrutiny of the ash management by the thermal plants revealed the following:

Decline in fly ash lifting

3.13.6 The three thermal plants annually generated four million tonnes of fly ash through ESPs and let out through Pressurised Dense Fly Ash Collection System (PDFACS) for lifting by the user agencies, mostly cement manufacturers. Analysis of quantum of fly ash lifted by the cement companies/others in the three plants during the period 2011-2016 **(Annexure-18)** revealed as under:

- TANGEDCO had signed Memorandum of Understanding (MoU) valid till 2011 with cement companies for lifting of 80 *per cent* of the dry fly ash collected in the PDFACS. The balance 20 *per cent* of the collected fly ash was reserved for small scale brick manufacturing units.
- While TTPS was able to dispose off 100 *per cent* of the fly ash generated, there was heavy decline in the quantum of fly ash lifted in NCTPS and MTPS. Against the quantum of 11.64 million tonnes of fly ash generated, the plants could dispose of only 8.21 million tonnes (70 *per cent*). The maximum decline was in NCTPS, as only 2.90 million tonnes out of 5.20 million tonnes (55 *per cent*) was lifted in the five years ending 2015-16. The balance quantity of fly ash (2.30 million tonnes) together with the quantum of unlifted bottom ash and wet ash was transported to the ash dyke[82]. From the information made available by NCTPS, the transportation of un-lifted quantity of fly ash and bottom ash/wet ash to the ash dyke led to additional expenditure of ₹ 10.32 crore during the period 2013-16.
- A quantum of 69.58 million tonnes of ash remained in the ash dykes in the three plants as on 31 March 2016. MoEFCC's guidelines for phasing out of such accumulation of ash on land by 2009 was not therefore adhered to by TANGEDCO.

Figure 2-Ash from NCTPS being dumped in marshy land

The Government replied (November 2016) that addition of number of coal

[82] Ash dyke is an engineered structure created for disposal of bottom ash and fly ash generated from the thermal plants.

based thermal power plants in Chennai and other parts of Tamil Nadu also contributed for reduction in lifting of dry fly ash from TANGEDCO by the cement companies. It further stated that the thermal plants were instructed to make efforts for disposal of the unlifted dry fly ash.

High Station Heat Rate

3.13.7 As identified by the National Action Plan for Climate Change (NAPCC), improving efficiency of the thermal plant is one of the ways of mitigating greenhouse gas emission. Station Heat Rate[83] (SHR) is an important measure for assessing the efficiency of the thermal power plant. Excess heat rate results in excess consumption of coal thereby increasing air and water pollution due to generation of more ash from the excess coal consumed.

The actual SHR as worked out by Audit, *vis-a-vis* the norms[84] fixed by the Tamil Nadu Electricity Regulatory Commission (TNERC) in the three thermal plants are given in the table below:

Table-3.2 Station heat rate generated by thermal plants

(per Kilowatt Hour)

Name of the thermal plant	SHR Norm (in Kcal)	Actual SHR				
		2011-12	2012-13	2013-14	2014-15	2015-16
TTPS –Units I to V	2,453	2,647	2,740	2,594	2,560	2,559
MTPS-Units I to IV	2,500	2,549	2,620	2,716	2,541	2,472
MTPS-Unit V	2,500	---	---	2,302	2,483	2,499
NCTPS – Units I to III	2,466 2,393	2,478 ---	--- 2,491	--- 2,571	--- 2,512	--- 2,466
NCTPS – Units IV & V	2,450	---	---	---	2,843	2,609

It was noticed that the actual SHR was more than the norm fixed by TNERC in respect of TTPS, MTPS and NCTPS resulting in excess consumption of coal. Due to excess SHR, the plants consumed 4.02 million tonnes of excess coal involving additional expenditure of ₹1,601.68 crore with resultant excess generation of 1.22 million tonnes of ash. Consequently, 4.91 million tonnes of CO_2, 0.49 lakh tonnes of SO_2 and 1.34 lakh tonnes of NO_x had been let into the atmosphere during 2011-16, which had an adverse effect on environment.

The Government attributed (November 2016) the excess SHR to ageing of plants, operating of the units at partial load and non-availability of coal as per design. In view of the fact that the TNERC fixed the normative station heat rate to the respective plant considering the ground realities and parameters relevant for the plant, the excess SHR and the consequent excessive generation of ash was attributable only to non-implementation of comprehensive repairs and maintenance schedule resulting in delayed capital/annual overhaul.

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83 Station Heat Rate is a measure to calculate the heat required to generate each unit of electricity.

84 TNERC(Terms and Conditions for determination of tariff) Regulations, 2005 as amended upto 31-12-2010 and tariff orders on generation and distribution.

Audit further observed that since coal particles remain in combustion zone only for two to three seconds, complete combustion is possible, only if fineness of pulverised coal is above 70 *per cent* and completely mixed with combustion air. It was noticed that TTPS could not achieve the prescribed fineness in pulverised coal due to poor performance of the mills. During the period between 2013-14 and 2015-16, pulverised coal analysis tests conducted in this plant indicated that the pass through from 200 mesh[85] was only in 1,393 times out of 2,130 tests (*i.e*., 65 *per cent*). The Government stated (November 2016) that the reasons for the poor mill performance was on account of the high ash and moisture content of coal resulting in more wear and tear of the rotating parts. The reply was not convincing because the high ash content of the coal was a known fact for which permanent solution like revamping of the mills, *etc*., had to be carried out. But, TANGEDCO had not initiated any such measures till date (November 2016).

Audit further noticed 186 instances of heat loss on account of boiler tube punctures, which resulted in loss of generation (10,261 hours) in the three power plants during the period 2011-12 to 2015-16 equivalent to 1,503.92 MU.

The Government replied (November 2016) that excessive boiler tube punctures were due to ageing of boilers, frequent partial loading of boilers and variation in coal quality. Audit observed that the incidence of boiler tube punctures could have been reduced to a great extent by proper preventive maintenance and also through proper blending of coal and improved mill performance.

Non-achievement of Perform, Achieve and Trade (PAT) target resulting in possible penalty

3.13.8 Perform, Achieve and Trade (PAT) is a market based trading scheme announced (2008) by the GOI under National Action Plan on Climate Change. Participation in the scheme and achieving the targeted energy consumption as administered by the Bureau of Energy Efficiency (BEE),[86] was mandatory for designated consumers including thermal plants.

The three thermal plants, *viz*., TTPS, MTPS and NCTPS were marked as designated consumers and fixed targets for achievement and reduction of their SHR. The targets and the actual achievement of the three plants were as mentioned in the following table:

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85 Fineness of coal is measured as a percentage of the coal sample that passes through a set of test sieves usually designated as 50, 100 and 200 mesh. The fineness specification of 200 mesh (*i.e*., 75 micron) would achieve good combustion.

86 A statutory body under the Ministry of Power (GOI).

Table-3.3 Details of energy saving certificates to be purchased by thermal plants

Plant	BEE notified net heat rate (in Kcal)	Normalised Heat rate achieved during the PAT-1 scheme period (in Kcal)	Deviation (in Kcal)	Number of certificates to be purchased as penalty
TTPS Units I to V	2,738	2,747	9	6,289
NCTPS Units I to III	2,684	2,744	60	25,992
MTPS Units I to IV	2,715	2,729	14	8,225
Total				**40,506**

As the three plants were not able to meet SHR fixed by Bureau of Energy Efficiency (BEE), they became liable to purchase 40,506 numbers of Energy Saving certificates valued[87] at ₹ 41.12 crore as penalty during the first phase of the scheme. Audit observed that though TANGEDCO had brought (May 2016) these factors to notice of BEE, it did not relax the conditions for achieving the normalised heat rate and hence, the liability to purchase the certificates remained valid till date (October 2016).

The Government replied (November 2016) that excess SHR was due to ageing of the machines, partial load operation due to grid constraints, non availability of good quality coal *etc.*, and had these factors been considered, the normalised SHR would have been less. The fact, however, remained that had TANGEDCO initiated SHR improvement measures, the liability could have been reduced.

Water Pollution

3.13.9 The waste water of the thermal plants (containing toxic substances[88] and at a high temperature) is a source of water pollution, causing loss of aquatic species and polluting ground water.

The extent of pollution in the discharged water is measured mainly in terms of Total Suspended Solids (TSS)[89], Total Dissolved Solids (TDS) and Chlorides (CL). As a result of examination of these parameters in the discharged water of TTPS, MTPS and NCTPS during the five year period ending 31 March 2016, Audit observed the following:

Absence of Effluent Treatment and Sewage Treatment Plants

(i) At NCTPS (Units I to III) and TTPS (Units I to V), sea water (130 KL per MW per hour approximately) is drawn and passed through tunnels for condenser cooling and let back into the sea after consuming around 5 *per cent* for preparation of ash slurry. The effluents generated in the above process are

87 The Energy Saving Certificate is sold by industries achieving greater reduction than their target, which has a value calculated on the basis of price and consumption mix of coal, oil, gas and electricity of all Designated Consumers. The value considered by audit for valuation purposes is ₹ 10,154.

88 Toxic substances include sulphates, chloride, oil and grease *etc*.

89 TDS/TSS are the combined content of all the effluents from floor washing, ash handling system, coal handling system, clarifier sludge, filter backwash *etc*.

discharged into sea without any treatment. Right from its first consent order, (December 1993), *i.e.*, CFO, the TNPCB had been instructing both NCTPS and TTPS to set up Effluent Treatment Plants (ETP) at the discharge points of sea water. Inspite of these instructions, ETPs were yet to be set up and untreated water continued to be discharged into the sea.

Audit observed that during the five year period ending 31 March 2016, 6.58 billion m^3 of effluent water was discharged into the sea without treatment. Audit further observed that in both these plants, the inlet sea water was already having high range of pollutants, ranging upto 91,136 mg/litre for TDS and 52,484 mg/litre for Chloride. In the absence of an ETP, a maximum of 1,13,000 mg/litre for TDS and 62,480 mg/litre for Chloride aggravated the pollution level of sea near the plant area.

The Government replied (November 2016) that in respect of NCTPS, consultancy service for establishing the ETP with online effluent quality monitoring system had been completed but erection work was in progress. As regards TTPS, proposal for getting consultancy services for the work was under progress. The fact, however, remains that the plants continued to discharge effluent water without treatment.

(ii) As MTPS Units I to IV did not have an ETP, TNPCB insisted (January 2013) MTPS to commission an ETP and to install online Effluent Quality Monitoring Stations to monitor the untreated water discharged into nearby Perumpallam stream of Cauvery river. In the compliance report, MTPS assured to commission a common ETP for all the existing Units I to IV and the new 600 MW Unit V. The ETP was commissioned after a delay of three years, in October 2015 as Unit V had already been synchronised with the grid on 4 May 2012 without completion of the common ETP. Audit observed in this regard that as against the designed capacity of the common ETP (11,000 m^3 per day), the actual daily discharge of effluent from all the five units ranged between 46,712 m^3 and 64,459 m^3. Consequently, the plant continued to let out untreated effluent from Units-I to IV into Cauvery river.

The Government replied (November 2016) that as per the work awarded to the contractors for Unit V, only 7,000 m^3 of effluent from Units I to IV was to be treated in the common ETP and action had since been taken to execute the construction of effluent sumps for the balance quantity from these units. The fact, however, remains that even before award of work for Unit-V, TANGEDCO was aware of the quantum of effluent let out by all the units and the insufficient capacity of common ETP. TANGEDCO also failed to take up the follow-up action on construction of the common ETP, despite TNPCB's repeated instructions.

Insufficient Channel for Hot Water Discharge

3.13.10 NCTPS Units I to III were discharging 99,000 m^3/hour and Units-IV and V were discharging 2,20,000 m^3/hour of hot effluent water into the sea through a channel, which was constructed in the year 2003. TNPCB noticed (June 2013) that the culvert along with the compound wall in the channel had washed off for a length of about 60 metre due to heavy discharge of effluent water and the balance portion of culvert was also in a very bad condition due to corrosion. As a result, the effluent water was overflowing, causing environmental hazard in the surrounding areas. In this connection, Audit observed that even after three years, necessary repair works for the channel had not been carried out causing flooding of the nearby areas.

The Government replied (November 2016) that a proposal to reconstruct the damaged culvert was under consideration and at present widening the channel upto 120 meters was under progress.

Non-operation of Recovery Water Pump House

3.13.11 At NCTPS, the effluent generated from the Neutralisation pit, boiler blow down area, *etc*., are discharged into ash pond. The plant is having a Recovery Water Pump House (RWPH) to reuse the water from the ash pond for making slurry of the unlifted fly ash. The TNPCB, on inspection, found that (April 2012) RWPH was working with frequent breakdowns resulting in discharge of water from the ash pond into the Ennore creek. Though, TNPCB reiterated to stop discharge of water into Ennore creek in all its consent orders for the years 2012-13, 2013-14 and 2014-15, the plant continued to discharge the ash contained water into the creek whenever the RWPH was not in operation. After carrying out necessary rectification works, the RWPH started operation only from June 2014. Between April 2012 and June 2014, a quantum of 8.05 lakh m^3 of polluted water was discharged into the Ennore creek. Though, the Government stated (November 2016) that the RWPH was effectively in service now, the fact remains that the pollution was already caused to the sea water when RWPH was not in operation upto June 2014.

Figure 3- Ash mixed water from NCTPS being led into the Ennore creek

Non-installation of continuous effluent monitoring systems

3.13.12 As per the Central Pollution Control Board's (CPCB) directive (February 2014), the thermal power plants were required to install and connect with the TNPCB and CPCB servers, real time online continuous effluent quality monitoring systems at the discharge points of ETPs to monitor effluent parameters such as TSS and temperature. The installation of online monitoring systems was to be completed by 31 March 2015. Audit observed that TTPS and NCTPS Stage-I had not installed and connected online continuous effluent monitoring systems for monitoring of TSS and temperature till date (October 2016), which was one of the reasons for non renewal of consent for these plants by TNPCB for 2015-16.

Noise Pollution

3.13.13 As increasing ambient noise level in public places from various sources have deleterious effects on human health and psychological well being of the people, it is necessary to regulate and control noise at generating sources. Schedule to Rules 3(1) and 4(1) of the Noise Pollution (Regulations and Controls) Rules, 2000 prescribed that ambient air quality levels in respect of noise in industrial area should not exceed 75 decibels (dbs) during day time and 70 dbs during night time respectively. Table below indicates noise levels attained by the three plants during the five year period ending 2015-16 in three areas *viz.*, Turbine, Generator and Mill Plant.

Table-3.4 Noise generated by thermal plants in different areas

Area	Plant	Day time Noise in the range of – (in decibels)
Turbine	TTPS	79.8 to 89.4
	MTPS	75.9 to 87.9
	NCTPS	83.5 to 91.0
Generator	TTPS	80.5 to 89.3
	MTPS	79.8 to 90.3
	NCTPS	93.2 to 97.1
Mills	TTPS	86.0 to 91.4
	MTPS	73.8 to 86.6
	NCTPS	79.6 to 91.6

(Source: Data obtained from Annual Environmental Monitoring Reports of TANGEDCO)

It was observed that the noise levels in all the three areas in the three plants were above the norms in the five year period from 2011-12 to 2015-16 and thus, the thermal plants were violating the provisions of the rules.

The Government replied (November 2016) that noise level in areas like boiler feed pump, turbine floor and cooling water pump house were slightly exceeding the standards level and it was inevitable. The reply was not justifiable as the increased noise level would have an adverse impact on the health and well being of the officials and had TANGEDCO provided acoustic barriers and sound absorbing materials at the transmission path, the noise level could have been reduced. But there were no provisions in TANGEDCO's budget for providing noise reduction equipment.

Creation of Green Belt

3.13.14 As per stipulation of MoEFCC, Green belt including landscape area equivalent to 33 *per cent* of the plant area was to be provided all around the power plant boundary to control pollution levels. Despite repeated reminders from TNPCB upto 2014-15 and also from the Environmental Monitoring Cell of TANGEDCO, none of the three power plants had complied fully with these norms for green cover. Audit observed that as of July 2016, most of the ash dyke area was devoid of trees in TTPS. Similarly in NCTPS Stage II and MTPS Stage III, planting of trees was only at the early stages.

The Government replied (November 2016) that steps were being taken to enhance the existing Green belt area.

Disposal of Hazardous Waste

3.13.15 TNPCB, while giving consent to operate the thermal plants, stipulated that the plants should comply with the Hazardous Wastes (Management, Handling and Trans-boundary Movement) Rules, 2008 in handling hazardous wastes like spent oil, oil sludge, exhaust resin, *etc*. As per the consent orders issued by TNPCB, a maximum quantity of 10,000 Kgs or a truck load, whichever was less, should alone be stored in the site for a maximum period of 90 days. The details of used oil generated, sold and closing stock for the period 2011-12 to 2015-16 are given in **Annexure-19.**

Audit observed that during the above period, TTPS exceeded the norm in all the five years, the maximum closing stock held during 2013-14 being 48,130 Kgs while NCTPS exceeded the norm during 2013-14 and 2014-15 (11,020 Kgs during 2013-14 and 14,760 Kgs during 2014-15). The plants disposed of the used oil by floating tender only once or twice a year and it took about four months to finalise the tender. Though the Rules stipulated that the used oil should be disposed of within ninety days, there were no running contracts for periodical disposal of the waste oil and the wastes remained in the plants for periods exceeding ninety days endangering environment and safety in the plants.

The Government in its reply (November 2016), assured that in future the waste oil would be disposed of periodically.

Expenditure Management for Pollution Control

3.13.16 The MoEFCC notification of September 1999 stipulated that the revenue from sale of fly ash should be used only for development of infrastructure for reaching the level of 100 *per cent* usage of fly ash. Audit noticed that though TANGEDCO had realised ₹ 625.93 crore as service charges through disposal of fly ash during 2011-16, it spent only ₹ 61.91 crore on environment management of the three units. The balance amount of ₹ 564.02 crore was diverted and spent for meeting TANGEDCO's general expenditure in violation of MoEFCC's guidelines. Thus, the stipulation of MoEFCC was not complied with by TANGEDCO even though the TNPCB had been repeatedly directing TANGEDCO to provide ETPs, revamping of ESPs, *etc.*, to control pollution.

Monitoring the pollution control

3.13.17 TANGEDCO has an Environment Management Cell (EMC) at its Headquarters (Chennai) to deal with issues concerning environment. The EMC conducts annual inspection of the thermal plants, prepares detailed reports on the study with suggestions for mitigation of pollution, which are sent to the thermal plants for follow-up actions. Audit observed that the suggestions of EMC over the years for pollution control such as reduction in chloride content, provision of ETP at TTPS and MTPS, arresting leakage in one of the silos of NCTPS, *etc*., were not complied with by the units, nor they recorded justifications for not carrying out the same. Further, the MoEFCC guidelines regarding AA tests twice a week were not complied with by the plants. Audit further noticed that the EMC reports particularly on the non-adherence to pollution control norms by the plants and action taken thereon were also not reported at the Board level by the EMC. Thus, the EMC's suggestions/observations were not taken cognizance by TANGEDCO's Headquarters.

Conclusion

It was found that the thermal plants of TANGEDCO continued to be functioning without adhering to the norms for air, water and noise pollutions as was evident from the fact that:

- the SPM levels at stack and carbon emission remained high due to non usage of clean beneficiated coal, keeping the station heat rate higher than the prescribed level, *etc*.
- A quantum of 69.58 million tonnes of ash remained in the ash dyke in the three power plants, which was against the MoEFCC's guidelines for phasing out accumulation of ash in the land.
- the plants polluted the sea and river water due to absence of ETP and STP.
- the envisaged equipments and the green belt areas to be maintained for controlling the noise pollution was not being maintained.
- the management of hazardous waste was also not as per the requirement of TNPCB.
- Against the revenue of ₹ 625.93 crore earned by disposal of fly ash, TANGEDCO spent only ₹ 61.91 crore on environment management, which was against the MoEFCC guidelines for spending the revenue only for infrastructure creation for disposal of fly ash.

Thus, the pollution control measures carried out by TANGEDCO continued to be inadequate.

Chennai
The 06 March 2017

(R.THIRUPPATHI VENKATASAMY)
Accountant General
(Economic and Revenue Sector Audit),
Tamil Nadu

Countersigned

New Delhi
The 07 March 2017

(SHASHI KANT SHARMA)
Comptroller and Auditor General of India

ANNEXURE-1

Statement showing investments made by State Government in PSUs, whose accounts are in arrears

(Referred to in paragraph 1.11)

(Figures in columns 4 & 6 to 8 are ₹ in crore)

Sl. No.	Name of the Public Sector Undertaking	Year upto which accounts finalised	Paid-up capital	Period of accounts pending finalisation	Investment made by State Government during the year of which accounts are in arrears		
					Equity	Loans	Grants
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Working Government companies						
1.	Tamil Nadu Fisheries Development Corporation Limited (TN Fisheries)	2014-15	4.45	2015-16	---	0.03	---
2.	Tamil Nadu Adi-Dravidar Housing and Development Corporation Limited (TAHDCO)	2013-14	128.27	2015-16	6.63	---	---
3.	Tamil Nadu Corporation of Development of Women Limited (TN Women)	2014-15	0.78	2015-16	---	---	20.04
4.	Tamil Nadu Urban Finance and Infrastructure Development Corporation Limited (TUFIDCO)	2014-15	32.00	2015-16	---	---	8.99
5.	Tamil Nadu Rural Housing and Infrastructure Development Corporation Limited (TN Rural Housing)	2013-14	3.00	2014-15	---	---	21.79
				2015-16	---	---	133.59
6.	Tamil Nadu Cements Corporation Limited (TANCEM)	2014-15	37.42	2015-16	24.85	24.85	---
7.	TNEB Limited	2014-15	15,364.39	2015-16	3,253.65	---	---
8.	Tamil Nadu Transmission Corporation Limited (TANTRANSCO)	2014-15	3,880.99	2015-16	---	654.59	---
9.	Tamil Nadu Civil Supplies Corporation (TNCSC)	2014-15	59.86	2015-16	7.88	---	---
10.	Tamil Nadu Skill Development Corporation Limited (TNSDC)	2014-15	0.05	2015-16	---	---	20.35
	TOTAL				**3,293.01**	**679.47**	**204.76**

ANNEXURE-2

Summarised financial position and working results of Government companies and Statutory corporation as per their latest finalised financial statements/accounts

(Referred to in paragraph 1.14)

(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 the year	Accumulated profit(+)/ Loss(-)	Turnover	Net profit(+)/ Loss(-)	Net impact of audit comments	Capital employed	Return on capital employed	Percen-tage of return on capital employed	Man-power
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
A. Working Government Companies													
	AGRICULTURE & ALLIED												
1.	Tamil Nadu Fisheries Development Corporation Limited (TN Fisheries)	2014-15	2015-16	4.46	0.03	13.35	486.44	5.28		35.97	5.30	14.73	132
2.	Tamil Nadu Forest Plantation Corporation Limited (TAFCORN)	2015-16	2016-17	5.64	---	176.12	66.27	18.20		198.18	18.20	9.18	296
3.	Tamil Nadu Tea Plantation Corporation Limited (TANTEA)	2015-16	2016-17	14.96	12.69	(-)55.73	57.83	(-)21.10		5.17	(-)18.44	---	5,137
4.	Arasu Rubber Corporation Limited (ARC)	2015-16	2016-17	8.45	1.00	(-)3.85	25.35	(-)9.12		19.29	(-)9.01	---	1,291
	Sector-wise total			**33.51**	**13.72**	**129.89**	**635.89**	**(-)6.74**		**258.61**	**(-)3.95**	**---**	**6,856**
	FINANCE												
5.	Tamil Nadu Industrial Investment Corporation Limited (TIIC)	2015-16	2016-17	321.00	545.84	17.95	223.95	34.98		1,040.79	163.95	15.75	448
6.	Tamil Nadu Handloom Development Corporation Limited (TN Handloom)	2015-16	2016-17	4.29	2.17	(-)1.80	7.72	0.10		4.66	0.72	15.45	7
7.	Tamil Nadu Small Industries Development Corporation Limited (TN SIDCO)	2015-16	2016-17	24.70	---	80.24	77.03	5.73		104.94	6.79	6.47	311

Sl. No.	Sector/Name of the Company	Period of accounts	Year in which accounts finalised	Paid-up capital	Loans outstanding at the end of the year	Accumulated profit(+)/ Loss(-)	Turnover	Net profit(+)/ Loss(-)	Net impact of audit comments	Capital employed	Return on capital employed	Percen-tage of return on capital employed	Man-power
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
8.	Tamil Nadu Adi-dravidar Housing and Development Corporation Limited (TAHDCO)	2013-14	2016-17	128.27	0.09	40.22	14.29	3.70		180.45	4.32	2.39	284
9.	Tamil Nadu Transport Development Finance Corporation Limited (TDFC)	2015-16	2016-17	61.74	---	90.42	212.01	4.23		1,510.64	205.79	13.62	24
10.	Tamil Nadu Backward Classes Economic Development Corporation Limited (TABCEDCO)	2014-15	2015-16	12.27	---	21.82	5.10	5.05		134.99	6.63	4.91	18
11.	Tamil Nadu Corporation for Development of Women Limited (TN Women)	2014-15	2016-17	0.78	---	22.67	290.10	4.35		23.81	4.35	18.27	491
12.	Tamil Nadu Urban Finance and Infrastructure Development Corporation Limited (TUFIDCO)	2014-15	2016-17	32.00	19.21	76.63	33.71	12.70		205.12	26.37	12.86	35
13.	Tamil Nadu Minorities Economic Development Corporation Limited (TAMCO)	2013-14	2015-16	2.05	70.09	14.60	7.66	5.49		64.27	7.10	11.05	3
14.	Tamil Nadu Infrastructure Fund Management Corporation Limited (TN Infra Management)	2015-16	2016-17	16.00	---	0.08	0.44	0.08		16.08	0.08	0.50	2
	Sector-wise total			**603.10**	**637.40**	**362.83**	**872.01**	**76.41**		**3,285.75**	**426.10**	**12.97**	**1,623**
	INFRASTRUCTURE												
15.	Tamil Nadu Industrial Development Corporation Limited (TIDCO)	2014-15	2015-16	72.03	---	264.99	82.44	56.99		457.14	81.95	17.93	52
16.	State Industries Promotion Corporation of Tamil Nadu Limited (SIPCOT)	2014-15	2015-16	123.91	---	798.93	477.17	87.21		945.00	87.21	9.23	197
17.	Tamil Nadu Police Housing Corporation Limited (TN Police Housing)	2015-16	2016-17	1.00	---	39.35	274.76	9.60		40.35	10.14	25.13	351
18.	TIDEL Park Limited (TIDEL, Chennai)	2014-15	2015-16	44.00	---	287.51	60.06	42.14		335.44	42.14	12.56	36

Sl. No.	Sector/Name of the Company	Period of accounts	Year in which accounts finalised	Paid-up capital	Loans outstanding at the end of the year	Accumulated profit(+)/ Loss(-)	Turnover	Net profit(+)/ Loss(-)	Net impact of audit comments	Capital employed	Return on capital employed	Percen-tage of return on capital employed	Man-power
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
19.	Tamil Nadu Rural Housing and Infrastructure Development Corporation Limited (TN Rural Housing)	2013-14	2015-16	3.00	668.92	0.20	---	(-)0.88		367.22	2.53	0.69	---
20.	Nilakottai Food Park Limited (Nilakottai)	2014-15	2015-16	0.68	---	(-)0.04	---	0.06		0.64	0.06	9.38	---
21.	Guindy Industrial Estate Infrastructure Upgradation Company (Guindy Industrial Estate)	2014-15	2015-16	0.01	---	---	---	---		0.01	---	---	1
22	Tamil Nadu Road Infrastructure Development Corporation (TN Road Infrastructure)	2015-16	2016-17	5.00	---	2.11	1.47	0.29		7.11	0.29	4.08	2
23	Tamil Nadu Road Development Company Limited (TNRDC)	2015-16	2016-17	10.00	116.84	25.54	20.69	0.91		300.37	2.27	0.76	86
24.	IT Expressway	2015-16	2016-17	44.05	146.40	14.59	54.67	7.61		225.22	20.23	8.98	49
25.	TIDEL Park Coimbatore Limited (TIDEL,Coimbatore)	2015-16	2016-17	162.01	35.00	(-)49.22	27.23	12.21		184.84	41.47	22.44	16
26.	Adyar Poonga	2015-16	2016-17	0.10	---	---	---	---		0.10	---	---	---
27.	TICEL Bio Park Limited (TICEL Bio Park)	2014-15	2015-16	89.00	72.11	7.35	13.79	(-)0.40		158.33	0.33	0.21	14
28.	Tamil Nadu Polymer Industries Park Limited (TNPIP LIMITED)	FIRST ACCOUNTS DUE											
29.	Madurai Thoothukudi Industrial Corridor Development Corporation Limited (MTICD Limited)	FIRST ACCOUNTS DUE			---								
	Sector-wise total			**554.79**	**1,039.27**	**1,391.31**	**1,012.28**	**215.74**		**3,021.77**	**288.62**	**9.55**	**804**
	MANUFACTURING												
30.	Tamil Nadu Small Industries Corporation Limited (TANSI)	2014-15	2015-16	20.00	---	84.37	57.44	10.25		300.33	10.51	3.50	84

Sl. No.	Sector/Name of the Company	Period of accounts	Year in which accounts finalised	Paid-up capital	Loans outstanding at the end of the year	Accumulated profit(+)/ Loss(-)	Turnover	Net profit(+)/ Loss(-)	Net impact of audit comments	Capital employed	Return on capital employed	Percen-tage of return on capital employed	Man-power
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
31.	Tamil Nadu Textiles Corporation Limited (TN Textiles)	2015-16	2016-17	1.54	5.77	(-)1.28	17.55	0.57		6.16	1.32	21.43	112
32.	Tamil Nadu Zari Limited (TN Zari)	2015-16	2016-17	0.34	0.25	2.65	27.85	0.15		3.44	0.18	5.23	91
33.	Tamil Nadu Handicrafts Development Corporation Limited (TN Handicrafts)	2015-16	2016-17	3.22	---	4.93	34.50	0.66		9.26	0.89	9.61	129
34.	Tamil Nadu Salt Corporation Limited (TN Salt)	2015-16	2016-17	6.34	---	9.20	29.07	0.38		15.77	0.38	2.41	70
35.	Tamil Nadu Sugar Corporation Limited (TASCO)	2014-15	2015-16	80.59	62.85	(-)117.90	106.44	(-)18.20		(-)1.25	(-)13.59	---	266
36.	Tamil Nadu Cements Corporation Limited (TANCEM)	2014-15	2015-16	37.42	24.85	(-)25.74	283.94	2.94		11.68	5.70	48.80	506
37.	Perambalur Sugar Mills Limited (PSM) (subsidiary of TASCO)	2014-15	2015-16	37.62	98.83	(-)193.17	82.58	(-)24.48		(-)82.42	(-)15.43	---	246
38.	Tamil Nadu Minerals Limited (TAMIN)	2015-16	2016-17	15.74	---	110.24	141.30	14.99		125.98	14.99	11.90	1,183
39.	Tamil Nadu Magnesite Limited (TANMAG)	2015-16	2016-17	16.65	31.96	50.13	100.31	26.65		66.78	30.97	46.38	364
40.	Tamil Nadu Industrial Explosives Limited (TIEL)	2014-15	2015-16	27.03	45.62	(-)141.31	41.53	(-)14.49		(-)96.25	(-)10.49	---	380
41.	Tamil Nadu Medicinal Plant Farms and Herbal Medicine Corporation Limited (TAMPCOL)	2015-16	2016-17	3.00	---	14.71	41.40	3.83		19.27	3.83	19.88	103
42.	Tamil Nadu Paints and Allied Products Limited (TAPAP)	2015-16	2016-17	0.02	---	2.06	2.15	0.25		2.08	0.32	15.38	---
43.	Tamil Nadu Newsprint and Papers Limited (TNPL)	2015-16	2016-17	69.38	2,096.48	1,192.49	2,417.54	253.93		3,384.26	393.23	11.62	2,590
	Sector-wise total			**318.89**	**2,366.61**	**991.38**	**3,383.60**	**257.43**		**3,765.09**	**422.81**	**11.23**	**6,124**

Sl. No.	Sector/Name of the Company	Period of accounts	Year in which accounts finalised	Paid-up capital	Loans outstanding at the end of the 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	Man-power
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	POWER												
44.	Tamil Nadu Power Finance and Infrastructure Development Corporation Limited (TN Powerfin)	2015-16	2016-17	90.00	---	427.47	1,849.28	108.42		10,631.08	1,662.53	15.64	27
45.	Udangudi Power Corporation Limited (Udangudi Power)	2015-16	2016-17	65.00	4.00	0.56	---	---		65.56	---	---	---
46.	TNEB Limited	2014-15	2016-17	15364.39	---	(-)0.86	---	(-)0.26		15,363.53	(-)0.26	---	---
47.	Tamil Nadu Transmission Corporation Limited (TANTRANSCO)	2014-15	2015-16	3,880.99	11,325.51	(-)2,600.31	1,776.07	(-)112.93		12,926.63	523.07	4.05	---
48.	Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO)	2014-15	2015-16	11,457.56	82,438.53	(-)65,222.10	42,025.22	(-)12,756.59		15,815.83	(-)4,626.14	---	89,013
	Sector-wise total			**30,857.94**	**93,768.04**	**(-)67,395.24**	**45,650.57**	**(-)12,761.36**		**54,802.63**	**(-)2,440.80**	**---**	**89,040**
	SERVICE												
49.	Tamil Nadu Tourism Development Corporation Limited (TTDC)	2015-16	2016-17	10.43	14.71	37.43	93.76	(-)0.21		64.88	0.25	0.39	390
50.	Tamil Nadu Civil Supplies Corporation (TNCSC)	2014-15	2016-17	59.86	---	---	8,374.12	---		69.49	76.55	110.16	14,769
51.	Poompuhar Shipping Corporation Limited (PSC)	2014-15	2015-16	20.53	---	11.69	626.31	3.71		32.22	5.09	15.80	114
52.	Electronics Corporation of Tamil Nadu Limited (ELCOT)	2014-15	2015-16	25.93	---	48.70	23.24	19.21		209.26	30.56	14.60	140
53.	Overseas Manpower Corporation Limited (OMPC)	2015-16	2016-17	0.15	---	0.49	1.58	0.13		0.64	0.13	20.31	10
54.	Tamil Nadu Skill Development Corporation Limited (TNSDC)	2015-16	2016-17	0.05	---	0.18	---	0.06		0.23	0.06	26.09	12
55.	Tamil Nadu State Marketing Corporation Limited (TASMAC)	2015-16	2016-17	15.00	---	(-)180.83	30,287.29	(-)125.64		(-)150.37	158.30	---	27,040

Sl. No.	Sector/Name of the Company	Period of accounts	Year in which accounts finalised	Paid-up capital	Loans outstanding at the end of the year	Accumulated profit(+)/ Loss(-)	Turnover	Net profit(+)/ Loss(-)	Net impact of audit comments	Capital employed	Return on capital employed	Percen-tage of return on capital employed	Man-power
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
56.	Pallavan Transport Consultancy Services Limited (PTCS)	2015-16	2016-17	0.10	---	(-)1.45	0.36	(-)0.14		(-)1.35	(-)0.14	---	8
57.	Tamil Nadu Medical Services Corporation Limited (TN Medical)	2015-16	2016-17	4.04	---	14.69	36.40	0.06		30.95	0.06	0.19	519
58.	Tamil Nadu Ex-servicemen's Corporation Limited (TEXCO)	2014-15	2015-16	0.23	---	90.19	144.88	12.04		90.42	12.04	13.32	91
59.	Metropolitan Transport Corporation Limited (MTC)	2015-16	2016-17	566.95	190.34	(-)2,502.55	1,277.88	(-)499.67		(-)1,767.59	(-)412.44	---	23,339
60.	State Express Transport Corporation Limited (SETC)	2015-16	2016-17	348.16	173.56	(-)1,616.47	554.62	(-)157.07		(-)934.62	(-)80.23	---	6,811
61.	Tamil Nadu State Transport Corporation (Coimbatore) Limited (TNSTC, Coimbatore)	2015-16	2016-17	355.98	247.95	(-)2,437.45	1,157.14	(-)401.99		(-)1,754.04	(-)314.49	---	19,353
62.	Tamil Nadu State Transport Corporation (Kumbakonam) Limited (TNSTC, Kumbakonam)	2015-16	2016-17	334.68	57.16	(-)2,009.72	1,509.56	(-)388.62		(-)1,464.30	(-)296.15	---	25,606
63.	Tamil Nadu State Transport Corporation (Salem) Limited (TNSTC, Salem)	2015-16	2016-17	152.93	102.36	(-)1,431.94	861.46	(-)233.36		(-)1,140.89	(-)184.35	---	13,760
64.	Tamil Nadu State Transport Corporation (Villupuram) Limited (TNSTC, Villupuram)	2015-16	2016-17	273.31	136.08	(-)1,548.51	1,478.71	(-)304.92		(-)1,104.37	(-)239.08	---	25,106
65.	Tamil Nadu State Transport Corporation (Madurai) Limited (TNSTC, Madurai)	2015-16	2016-17	516.98	45.10	(-)2,423.42	969.38	(-)274.01		(-)1,694.13	(-)221.83	---	15,099
66.	Tamil Nadu State Transport Corporation (Tirunelveli) Limited (TNSTC, Tirunelveli)	2015-16	2016-17	133.17	35.35	(-)2,175.88	671.02	(-)340.61		(-)1,567.14	(-)235.19	---	12,926

Sl. No.	Sector/Name of the Company	Period of accounts	Year in which accounts finalised	Paid-up capital	Loans outstanding at the end of the 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	Man-power
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
67.	Arasu Cable TV Corporation Limited (Arasu Cable TV)	2014-15	2015-16	25.00	14.03	12.18	176.71	18.46		61.69	20.69	33.54	1,168
	Sector-wise total			**2,843.48**	**1,016.64**	**(-)16,112.67**	**48,244.42**	**(-)2,672.57**		**(-)11,019.02**	**(-)1,680.17**	**---**	**1,86,261**
	Total A (All sector-wise working Government Companies)			**35,211.71**	**98,841.68**	**(-)80,632.50**	**99,798.77**	**(-)14,891.09**		**54,114.83**	**(-)2,987.39**		**2,90,708**
B.	**Working Statutory Corporations**												
	SERVICE												
1.	Tamil Nadu Warehousing Corporation (TANWARE)	2014-15	2015-16	7.61	---	94.55	51.61	17.67		102.16	17.67	17.30	261
	Total B (All sector-wise working Statutory Corporations)			**7.61**	**---**	**94.55**	**51.61**	**17.67**		**102.16**	**17.67**	**17.30**	**261**
	Grand total (A+B)			**35,219.32**	**98,841.68**	**(-)80,537.95**	**99,850.38**	**(-)14,873.42**		**54,216.99**	**(-)2,969.72**	**---**	**2,90,969**
C.	**Non-working Government Companies**												
	AGRICULTURE & ALLIED												
1.	Tamil Nadu Agro Industries Development Corporation Limited (TN AGRO)	2012-13	2015-16	6.01	20.96	(-)79.62	---	(-)2.73		17.56	0.91	5.18	---
2.	Tamil Nadu Poultry Development Corporation Limited (TAPCO)	2013-14	2014-15	1.27	---	(-)10.37	---	---		(-)0.73	---	---	---
	Sector-wise total			**7.28**	**20.96**	**(-)89.99**	**---**	**(-)2.73**		**16.83**	**0.91**	**5.41**	**---**

Sl. No.	Sector/Name of the Company	Period of accounts	Year in which accounts finalised	Paid-up capital	Loans outstanding at the end of the year	Accumulated profit(+)/ Loss(-)	Turnover	Net profit(+)/ Loss(-)	Net impact of audit comments	Capital employed	Return on capital employed	Percen-tage of return on capital employed	Man-power
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	INFRASTRUCTURE												
3.	Tamil Nadu State Construction Corporation Limited (TN State Construction)	2001-02	2004-05	5.00	1.00	(-)26.44	---	(-)6.48		80.14	(-)5.52	---	64
	Sector-wise total			**5.00**	**1.00**	**(-)26.44**	**---**	**(-)6.48**		**80.14**	**(-)5.52**	**---**	**64**
	MANUFACTURING												
4.	Southern Structurals Limited (SSL)	2015-16	2016-17	34.54	---	(-)257.06	---	(-)11.29		(-)218.92	(-)0.18	---	---
5.	State Engineering and Servicing Company of Tamil Nadu Limited (SESCOT) (subsidiary of TANSI)	2014-15	2015-16	0.50	---	(-)13.05	---	(-)0.74		0.02	(-)0.01	---	---
	Sector-wise total			**35.04**	**---**	**(-)270.11**	**---**	**(-)12.03**		**(-)218.90**	**(-)0.19**	**---**	**---**
	SERVICE												
6.	Tamil Nadu Goods Transport Corporation Limited (TN Goods)	1989-90		0.33	---	(-)1.33	---	---		(-)0.30	0.07	---	---
	Sector-wise total			**0.33**	**---**	**(-)1.33**	**---**	**---**		**(-)0.30**	**0.07**	**---**	**---**
	Total C (All sector-wise non-working Government companies)			**47.65**	**21.96**	**(-)387.87**	**---**	**(-)21.24**		**(-)122.23**	**(-)4.73**	**---**	**64**
	Grand total (A+B+C)			**35,266.97**	**98,863.64**	**(-)80,925.82**	**99,850.38**	**(-)14,894.66**	**---**	**54,094.76**	**(-)2,974.45**	**---**	**2,91,033**

NOTE:

1. Loans outstanding at the close of 2015-16 represent long-term loans only.
2. Capital Employed represents Share Holders Funds PLUS Long Term Borrowings.
3. Return on Capital Employed has been worked out by adding Profit and Interest charged to Profit and Loss Account.
4. Accumulated loss of ₹ 34,741.35 crore relating to erstwhile Tamil Nadu Electricity Board upto October 2010 has not been transferred to TANGEDCO and TANTRANSCO, as the restructuring process is pending till date (November 2016).

ANNEXURE-3

(Referred to in Paragraph 2.1.8)

Statement showing Budget and Actuals of Tamil Nadu Industrial Investment Corporation Limited for the five years ending 2015-16

(₹ in crore)

Year	2011-12		2012-13		2013-14		2014-15		2015-16	
Particulars	**Budget**	**Actual**	**Budget**	**Actual**	**Budget**	**Actual**	**Budget**	**Actual**	**Budget**	**Actual**
Source of Funds										
Cash Balance & Bank	13.54	15.97	17.65	17.65	13.10	10.71	43.16	43.16	54.17	53.66
Balance in PD A/C	82.87	82.87	82.67	82.67	---	---	---	---	---	---
Ways & Means Adv from Govt	`---	---	---	---	---	37.50	---	---	---	---
Borrowings										
SIDBI-LOC	300	72	150	61	59	58.34	30	31.10	20	20.80
Deposits Received	45	81.88	150	188.52	230	128.50	250	245.60	255	105.22
Bank Borrowings	75	92.57	90	85.65	150	47.42	220	151.55	200	180
Bonds	---	---	150	---	150	150	200	---	200	---
Sub Total	**420**	**246.45**	**540**	**335.17**	**589**	**384.26**	**700**	**428.25**	**675**	**306.02**
Receipts Against										
Recovery of Principal	305	375.09	300	356.82	375	407.08	450	431.07	460	441.97
Bill Finance Scheme	275	228.14	275	354.94	375	505.53	600	678.02	740	732.25
Sub Total	**580**	**603.23**	**575**	**711.76**	**750**	**912.61**	**1050**	**1109.09**	**1200**	**1174.22**
Revenue Receipts										
Recovery of Interest	170	173.53	185	187.78	200	193.68	216	211.76	230	223.73
Other receipts	14	12.49	16	23.67	25	22.17	25	21.60	25	17.57
Total	**1280.41**	**1134.54**	**1416.32**	**1358.70**	**1577.10**	**1560.93**	**2034.16**	**1813.86**	**2184.17**	**1775.20**

Year	2011-12		2012-13		2013-14		2014-15		2015-16	
Particulars	**Budget**	**Actual**	**Budget**	**Actual**	**Budget**	**Actual**	**Budget**	**Actual**	**Budget**	**Actual**
Disbursement										
Term Loan	450	425.45	425	422.31	439	455.78	675	479.88	700	497.67
Bill Finance Scheme	350	277.49	430	367.88	562	565.88	700	740.30	800	743.51
Repayments										
SIDBI	73.40	59.56	94	98.95	116.68	120.79	105	105.04	100	104
Bonds-Redemption	44.96	45.21	32.47	32.47	0.75	0.75	0.25	0.25	---	---
Deposit	40	22.40	100	112.25	160	71.70	210	122.59	225	57.83
Other Payments-Bank	51.64	58.83	74.70	82.50	101	101.69	133	135.43	130	133.87
IT,etc	---	---	---	---	---	---	---	---	---	---
PD Account	---	---	---	82.67	---	---	---	---	---	---
Investment in NLC Shares	---	---	---	---	---	35.81	---	---	---	---
Revenue Payments										
Interest-SIDBI	58	50.22	54	50.93	49	47.57	44.50	42.82	38	36.15
Interest-LIC	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Interrest-Bonds	5.40	5.40	1.40	1.38	0.06	2.37	15	14.78	21	14.80
Interest-Other Borrowings	44.66	43.75	58.66	51.80	66	63.78	64.56	65.06	77.06	77.07
Financial Charges	1	0.54	1	0.17	0.10	2.44	2	1.02	1.50	1.13
Admin/Estd Expenses	44	43.56	46	43.32	50	47.53	51	51.13	54	50.19
Capital Expenditure	4	0.87	4	0.42	10	0.74	10	0.96	10	0.97
Cash Balance & Bank	29.74	17.65	11.48	10.71	21.57	43.16	22.91	53.66	26.67	57.07
Balance in PD A/C	82.67	82.67	82.67	---	---	---	---	---	---	---
Total	**1280.41**	**1134.54**	**1416.32**	**1358.70**	**1577.10**	**1560.93**	**2034.16**	**1813.86**	**2184.17**	**1775.20**

ANNEXURE-4

(Referred to in Paragraph 2.1.9)

Statement showing financial position of Tamil Nadu Industrial Investment Corporation Limited for the five years ended 31 March 2016

(₹ in crore)

Particulars	2011-12	2012-13	2013-14	2014-15	2015-16
Capital and Liabilities					
Capital	283.50	283.50	283.50	321.00	321.00
Reserves and Surplus	157.23	157.18	157.18	157.18	173.95
Bonds	33.47	1.00	150.25	150.00	150.00
Borrowings	920.87	900.94	797.14	760.10	743.99
Public Deposits	97.72	150.84	173.85	189.16	227.48
Inter corporate Deposit	88.43	111.64	145.43	253.12	262.19
Other liabilities and provisions	175.42	99.91	157.09	134.86	146.90
Total	**1,756.64**	**1,705.01**	**1,864.44**	**1,965.42**	**2,025.51**
Assets					
Cash and Bank	100.32	10.71	43.16	53.67	57.07
Investments	12.07	11.75	47.95	48.47	48.92
Loans and advances	1,348.38	1,416.86	1,510.06	1,617.05	1,667.03
Fixed assets	173.26	172.78	172.71	172.15	171.96
Other assets	22.67	28.01	56.73	65.98	80.53
Accumulated Losses	99.94	64.90	33.83	8.10	---
Total	**1,756.64**	**1,705.01**	**1,864.44**	**1,965.42**	**2,025.51**
Net worth	**181.39**	**214.64**	**235.88**	**299.40**	**323.96**
Percentage of return on net worth	**26.7**	**16.3**	**13.2**	**8.6**	**10.8**

ANNEXURE-5

(Referred to in Paragraph 2.1.9)

Statement showing working results of Tamil Nadu Industrial Investment Corporation Limited for the five years ended 31 March 2016

(₹ in crore)

Particulars	2011-12	2012-13	2013-14	2014-15	2015-16
Income					
Income from operations	173.65	192.95	194.05	212.07	223.95
Other income	19.61	22.87	21.80	21.35	20.95
Total Income	**193.26**	**215.82**	**215.85**	**233.42**	**244.90**
Expenditure					
Interest expended	98.93	106.60	114.66	123.61	128.97
Other financial expenses	0.54	0.23	2.44	1.62	1.13
Personnel expenses	34.51	39.26	40.89	43.49	42.68
Administrative expenses	5.89	5.69	6.64	7.64	7.51
Depreciation	0.90	0.78	0.80	1.52	1.15
Waiver and write off	50.18	17.24	18.44	11.73	37.25
Total Expenditure	**190.95**	**169.80**	**183.87**	**189.61**	**218.69**
Profit before provisions	**2.31**	**46.02**	**31.98**	**43.81**	**26.21**
Provisions on Standard Assets	1.40	0.50	0.05	2.00	2.33
Provisions on NPA	0.00	0.00	0.00	1.96	0.00
Write back of provisions	(-)48.73	0.00	0.00	0.00	(-)15.02
Depreciation on Investments	0.68	0.33	(-)0.39	(-)0.51	(-)1.48
Profit Before Tax	**48.96**	**45.19**	**32.32**	**40.36**	**40.38**
Provision for Tax	0.56	10.15	1.25	14.63	5.40
Profit After Tax	**48.40**	**35.04**	**31.07**	**25.73**	**34.98**

ANNEXURE-6

(Referred to in Paragraph 2.1.17)

Statement showing deficiencies in sanction and disbursement of loans

(₹ in crore)

Sl. No	Name of the unit	Amount disbursed	Principal outstanding	Principal overdue	Interest overdue	Audit findings
1	Abu Estate Private Limited	2.90	1.91	0.47	---	The Company even though noticed about the inadequate power supply and stipulated conditions regarding guarantee for supply of power through wind mill before disbursement. However, it failed to notice that the power generated through wind mill was of seasonal nature subject to wind conditions. Hence, the unit could not obtain the power supply for five and half months out of nine months. Thus, failure to properly assess the power required and its availability resulted in non recovery of dues. Even though, the Company stated that the capacity of the windmill was sufficient, it failed to verify the problems in grid connectivity as the connection to windmill was temporary only.
2	RRK Hi-Tech Industries Private Limited	1.83	1.67	0.21	0.13	Failure to ensure financial viability, marketing tie-up, industry performance at the time of appraisal of term loan. Availability of adequate power, Building plan approval and TNPCB approval was not ensured before disbursement of loan. The Company replied that delay in implementation was due to non availability of power supply. However, it was observed that the Company disbursed the loan without ensuring about the arrangements for immediate power supply by the assisted unit.
3	Sri Gajaraj Modern Rice Mill	0.75	0.49	---	0.10	The Company failed (i) to analyse the financial statement of GMRM like sales/total income, analysing the past performance, (ii) to analyse the track record of the GMRM when they are facing the working capital problem from the beginning. The Company replied that even after considering working capital loan, the loanee could not pay the dues and it is initiating legal action for recovery. This indicates poor sanction appraisal.
4	S.B. Industries	0.48	0.33	0.33	0.15	The Company failed to analyse the track record of the assisted unit relating to the previous loans, previous year production/sales performance, cash flow and profits for the last three years. The Company replied that the unit became defunct due to dispute among promoters and the overdue would be recovered through legal process. However, the fact remained that the

Sl. No	Name of the unit	Amount disbursed	Principal outstanding	Principal overdue	Interest overdue	Audit findings
						Company did not assess the capability of the promoters and the unit became defunct resulting in non recovery of overdues.
5	Sri Lakshmi Narayana Rice Mill	0.53	0.48	0.48	0.15	Even though the Company stipulated that the disbursement would be made after obtaining power load sanction by TNEB and working capital facilities from the bank. However, the Company disbursed the loan without fulfilling these conditions by the assisted unit. While sanctioning the loan, the Company estimated Working Capital requirement of ₹ 25.49 lakh (₹ 20.07 lakh bank loan and ₹5.42 lakh was taken as working capital margin). The Company failed to ensure whether the borrower had any tie-up with banks for ₹ 20.07 lakh. As the borrower was not prompt in settlement of dues, over dues started increasing and TLSP loan of ₹ 8.31 lakh was disbursed to the borrower. The late attempt by the Company to help the borrower through TLSP did not fetch results. Even though the Company stated that the assisted unit could not pay dues due to power problems, the fact remained that TLSP loan was disbursed only due to the unit's failure to obtain working capital loan from banks resulting in non-recovery of both Term and TLSP loans.
6	King Lubricants	0.56	0.37	0.33	0.16	While sanctioning the loans, the Company officials inspected the stock maintained by King Lubricants at its premises and WCTL was disbursed based on the Inspection Report. The Company did not verify the above stocks with purchase invoice, stores ledgers and other records. The Company stated that the inspection report was prepared based on records available. However, the fact remained that the Company failed to carry out proper evaluation through records, which resulted in non-recovery of dues.
7	Dura Kraft Papers Private Limited	0.24	0.24	0.24	0.14	The disbursement of loans based only on self certified stock statement was not proper and no inspection was made prior to disbursement and no study on power cut problem was done. Inspections were not made as per the Recovery Policy. Even though the Company replied that it took possession of collateral properties of the loanee, it was silent about failure to inspect the stocks with records.

Sl. No	Name of the unit	Amount disbursed	Principal outstanding	Principal overdue	Interest overdue	Audit findings
8	Andavar Modern Rice Mill, Muttathur	0.53	0.47	0.47	0.30	There was no marketing tie-up letters and market study. The borrower did not maintain proper books of accounts prior to 2007. The Company also extended WCTL of ₹ 20 lakh negating its own appraisal. The Company stated that it did not insist market tie-up letter as assisted unit was already supplying paddy and rice to dealers. This only indicated disbursement was made without proper verification, which is a pre-requisite for such assistance.
9	Veerammal Modern Rice Mill	0.39	0.30	0.30	0.21	Absence of market tie-up and market study. Dependence on single customer TNCSC. Principal amount of ₹30.42 lakh was written off during 2014-15. No further action taken to recover the dues. The Company replied that the assisted unit is contemplating a proposal for one time settlement. The fact, however, remained that the overdues remained unrecovered (October 2016).
10	Gayathri, Bangle Designer	0.15	0.12	0.05	0.08	The Company did not obtain any market tie-up letters nor made any market study particularly in the situation that the gold jewellery making involved stiff competition. The promoter of GBD stated (October 2013) that she could not run the unit continuously due to lack of adequate job orders. The Company replied that legal action had been initiated to recover the dues.
11	N-Tech Engineering	0.84	0.70	0.24	0.08	At the time of sanction of fourth term loan of ₹ 56 lakh, profitability, financial viability, marketing arrangement, were not properly reviewed by the Company. Thus the sanction of loan lacks proper justification. The Company replied that due to fluctuations in the automobile industries, the unit failed to repay the overdues. However, the fact remained that the Company foreclosed the loan only in May 2016 when the loan account became doubtful even in October 2015 itself. Further, it had no option to invoke personal guarantee due to non-obtaining of such guarantee.
12	Sree Sakthi Rolling Mills	0.70	0.69	0.69	0.46	While appraising the loan proposals, the Company estimated the working capital requirement would be ₹ 42.67 lakh out of which ₹ 32.63 lakh would be mobilised from bank tie-up. At the time of sanction, no such tie-up was ensured. Further, Sakthi Rolling commenced business in December 2010 with delay of 14 months. The Company replied that there was delay in implementation of project but no remarks were offered on non obtaining working capital arrangements.

Sl. No	Name of the unit	Amount disbursed	Principal outstanding	Principal overdue	Interest overdue	Audit findings
13	Sri Kathiravan Enterprises	0.36	0.36	0.25	0.22	While sanctioning the term loan in September 2010, the Company failed to monitor declining sales performance. These aspects were not analysed. The Company replied that the unit shifted its trading activity to manufacturing activity and hence there was decrease in sales. The fact, however, remained that the Company failed to analyse the decline in sales when loan was disbursed.
14	Ags Modern Rice Mill	2.45	1.25	1.15	0.40	Failure to analyse the financial statements while sanctioning the working capital loan. The assisted unit failed to contribute towards the capital instead re-valued the land and buildings. The Company failed to notice the diversion of funds amounting to ₹.62.67 lakh while sanctioning the working capital loan in September 2012. Thus, weakness in the pre/post sanction enabled wilful defaulter to obtain further loan from the Company.
	TOTAL	**12.71**	**9.38**	**5.21**	**2.58**	

ANNEXURE-7

(Referred to in Paragraph 2.1.29)

Statement showing deficiencies in monitoring of loans

(₹ in crore)

Sl. No	Name of the unit	Amount disbursed	Principal outstanding	Principal overdue	Interest overdue	Audit findings
1	Chennai Clamp Tech Designer Private Limited	6.83	4.63	---	1.06	The cost overrun in the factory building had resulted in failure to service term loan commitment and rescheduled the loan. The Company replied that SARFAESI notice was issued. The fact, however, remained that there was cost overrun resulting in reschedulement of loan.
2	Shree Shenbaga Polymers	2.68	2.10	---	0.03	The Company failed to ensure working capital arrangements at the time of sanction, failed to monitor the stages of implementation, track of customer's performance at various stages and on end use of funds, through periodical inspections. There was a delay in implementation of the project by nine months and the Company failed to assess the availability of power before disbursement of loan. The Company replied that the production of the unit was delayed and also affected due to fire accident. The Company's reply was silent regarding audit observations.
3	J and J Industry	0.95	0.85	---	0.01	As per appraisal by the Company, the loan was sanctioned based on enquiry letters from various reputed companies furnished by the promoters. However, the assisted unit could not obtain adequate orders and incurred losses which resulted in non-payment of over dues. In spite of this, the Company rescheduled loans in July 2013 even though the assisted unit's net worth was eroded by more than 50 *per cent*. The Company's reply was silent about reschedulement made without addressing the above issues.
4	Vayoojeet Windows & Door System	0.60	0.60	0.14	0.15	The appraisal note for sanction indicated that as per CIBIL consumer verification report the promoter was a defaulter as he had reported to have obtained the personal loan from bank during 2006, which was classified under written off category. Hence, the Company failed to assess the credentials of the promoters properly. Further, as per the terms of sanction, the promoter had to bring ₹31.80 lakh as share capital contribution. The Company, without verifying the bank account (pass book)

Sl. No	Name of the unit	Amount disbursed	Principal outstanding	Principal overdue	Interest overdue	Audit findings
						of the unit to ensure that the promoter had inducted necessary contribution, relied on Chartered Accountant's certificate and released the loan. The Company replied that Charted Accountant's certificate was accepted. However, the fact remained that as the proprietor had moveable assets of only ₹4.25 lakh at the time of sanction, it is not clear how disbursement was made.
5	Kamatchi Modern Rice Mill	0.25	0.25	0.16	0.15	The Company sanctioned (July 2011) TL of ₹16.70 lakh and SBL of ₹3.61 lakh for purchase and erection of P&M to improve the hulling capacity of the rice mill. After improving the capacity, the borrower approached (November 2011) the Company for WCTL of ₹10 lakh for which only ₹5.00 lakh was sanctioned and disbursed (February 2012) due to insufficient collateral. The Company failed to ensure the availability of working capital to the borrower and thereby the loans became doubtful of recovery. The Company accepted the audit findings that the unit suffered for want of working capital and intimated that it is proposed to foreclose the loan
6	Senthurvelan Modern Rice Mill	0.83	0.83	---	0.03	After sanctioning the TL of ₹58 lakh, the Company relaxed the requirement of bringing in the capital upfront of ₹37.45 lakh. Consequently, due to delay in bringing the capital upfront by the promoters, there was undue delay in completion of the project. Based on the request of the borrower, the Company sanctioned another TL of ₹10.50 lakh. The Company replied that the loan account was foreclosed and had taken possession of collateral. However, the reply is silent about the audit findings.
7	Millenium Embroideries	0.50	0.29	0.29	0.16	The Company inspected the borrower unit in January 2008 and thereafter in August 2014 only. It was noticed in August 2014 that machineries were missing. It implies that monitoring of the unit was not regular. The Company failed to monitor the assisted unit regularly as required in the recovery manual which stipulated that monitoring at regular intervals was mandatory in respect of all NPA cases. The Company's reply was not specific about audit findings in respect of inspections.

Sl. No	Name of the unit	Amount disbursed	Principal outstanding	Principal overdue	Interest overdue	Audit findings
8	Sri Murugan Plastics	0.66	0.55	0.12	0.04	Failure to ensure that the partners have bought in required capital (₹34.71 lakh) as per terms and conditions of sanction and release the loan accordingly. The promoter had contributed only ₹23.66 lakh as capital. The Company had not reviewed the marketing tie-up/arrangements for the products and depended on single dealer. The reply is silent about audit findings.
9	Ags Enviro Systems	0.39	0.39	0.04	0.04	The Company failed to ensure that the promoter had made arrangement for working capital loan with bank before disbursement. It failed to notice the huge difference between guideline and market value of the collateral property offered and accepted the same and disbursed the loan. The reply is silent about audit findings.
10	C.R.N.Granites	1.16	0.94	0.94	0.05	Rift among the promoters (family members) and failure to take possession of the unit when the unit defaulted in making payment of the principal and interest overdues. The assisted unit made partial payments of ₹15 lakh during 2015-16, when the overdue was ₹99.06 lakh (principal – ₹94.27 lakh and interest – ₹4.79 lakh). No action has been taken to recover the overdue amount of ₹99.06 lakh. The Company replied that legal action was initiated for recovery of dues.
11	Sameta Metal Pro (Private) Limited	1.77	1.06	0.12	---	The unit suffered due to working capital problems and labour unrest. The unit was unable to obtain adequate job orders to achieve break even. The Company failed to carryout inspection and accepted (August 2014) reschedulement proposal. However, the Company noticed the managerial inefficiency in December 2013 of main and ancillary units and accepted reschedulement. The Company replied that the loan account was closely monitored for recovery of dues
12	Vruksha Industries	0.65	0.63	0.16	---	This is the ancillary unit of Sameta metal pro (private) Limited. The regional sanction committee failed (March 2011) to notice that the assisted unit was dependant on the major unit *viz.*, Sameta metal pro (private) limited (Sl.No 11) for its survival. The main unit was under severe liquidity problem and the ancillary unit was also affected. However, the Company rescheduled the loan which resulted in non-recovery of dues. The Company replied that the loan account was closely monitored for recovery of dues.
	TOTAL	17.27	13.12	1.97	1.72	

ANNEXURE-8

(Referred to in Paragraph 2.1.30)

Statement showing recovery of principal and interest by Tamil Nadu Industrial Investment Corporation Limited from the assisted units during 2011-16

(₹ in crore)

Sl. No	Particulars	2011-12	2012-13	2013-14	2014-15	2015-16
1	Arrears at the beginning of the Year (Principal + Interest)	1803.81	385.89	346.33	165.72	111.48
2	Amount due during the year	1345.36	1055.84	1307.84	1478.17	1535.02
3	Total Amount due (1+2)	3149.17	1441.73	1654.17	1643.89	1646.50
4	Target amount for recovery (Principal + Interest)	780	760	950	1266	1430
5	Amount Recovered	776.76	904.11	1106.29	1320.85	1397.95
6	Balance to be recovered (3-5)	2372.41	537.62	547.88	323.04	248.55
7	Amount Rescheduled/Written off/Waiver	1986.52	191.34	382.16	211.56	156.63
8	Overdue at end of the year (6-7)	385.89	346.28	165.72	111.48	91.92
9	Percentage of recovery to target (5/4*100)	99.58	118.96	116.45	104.33	97.76
10	Percentage of recovery to total amount due (5/3*100)	24.67	62.71	66.88	80.35	84.90

ANNEXURE-9

(Referred to in Paragraph 2.1.30)

Statement showing deficiencies in recovery of loans

(₹ in crore)

Sl. No	Name of the unit	Amount disbursed	Principal outstanding	Principal overdue	Interest overdue	Audit findings
1	Alphaa Engineering	0.41	0.30	---	0.11	Though the borrower did not have concrete proposal for revival of the unit, the Company sanctioned second term loan, funded unpaid interest and rescheduled the loans. No specific remarks were offered on the audit findings as the Company stated that the unit was proposed to sell its machinery and settle the account.
2	Cyspower Technologies	0.15	0.15	0.01	0.03	The project has not been implemented as construction of building has not been completed. The Company replied that the branch office is taking action for recovery.
3	Sree Shanmugha Knit Fabs	0.57	0.25	0.25	0.36	Financial viability and marketing ability of the borrower was not properly analysed at the time of loan appraisal. Also the borrower had not furnished balance sheet subsequent to disbursal of loan. Though loan was foreclosed in February 2011, the assets *viz.*, land and buildings have not been brought to auction so far. The Company replied that the branch office is taking action for recovery.
4	A C L Cements Private Limited	1.07	0.42	0.42	39.74	The Company failed to take action immediately after the promoter had not fulfilled the Court direction issued (October 2010) in respect of OTS. Subsequently, the Company failed to notice the change in the management in September 2011 as the original promoter entered into an agreement with third person. The Company had conducted auction in October 2014.Thus, the Company failed to take action for auction of the property for the last two years. This has resulted in undue benefit to the private party. The Company replied that the branch office is taking action for recovery.

Sl. No	Name of the unit	Amount disbursed	Principal outstanding	Principal overdue	Interest overdue	Audit findings
5	Abu Tech	0.32	0.32	0.32	0.19	Since the borrower did not commence business after availing loan, this loan was foreclosed in March 2014. When the Company official visited the borrower unit during October 2015, the borrower unit was kept locked and Genset and Shot Blasting Machines were found missing. The Company came to know in October 2015 that the borrower had availed loan from Canara Bank in 2013. There was undue delay in taking possession of the machinery under SARFAESI Act as it took 18 months to proceed taking possession of the machineries by issue of notice in July 2014. When the Company proceeded to take possession of the machineries in February 2016, the Company found that all the machineries worth ₹17.40 lakh were missing and a criminal complaint was lodged with the Police. The Company replied that the branch office is taking action for recovery.
6	Geetha M (RIG)	0.48	0.30	0.30	0.07	The Company sanctioned and disbursed (₹47.50 lakh) the loan amount without verifying / inspecting the RIG unit till date and given undue benefit to the private party for the past one year by not taking legal action under SFC Act/SARFAESI Act against Primary / collateral security or against sureties/guarantors/ personal guarantee, even though no interim stay was obtained by the borrower till date. Meantime the borrower had sold the RIG unit. This had resulted in blocking of funds/overdue to the tune of ₹38.03 lakh. The Company replied that the promoter had submitted proposal for one time settlement.
7	Vaanavil Dyeings	1.10	0.83	0.83	7.44	The assets were taken possession in February 2008 and put on auction sale on 30.06.2008, the Company could not sell the same as the loanee obtained stay from the Hon'ble High Court, Madras. Subsequently, the Writ Petition filed by the loanee was dismissed. The Company has not taken steps to re-auction assets valued at ₹103.30 lakh as of March 2015. The Company replied (November 2016) that the assets would be brought to auction. The fact, however, remained that the Company is yet to recover the dues.
8	Geo Garments	0.46	0.21	0.21	0.21	The primary securities were sold in public auction. It was noticed that some of the machinery were missing and hence the borrower had come under willful defaulter category. As there was no collateral security, principal amount could not be covered. One Time Settlement (OTS) was approved and principal outstanding of ₹21.48 lakh was waived. Interest overdue before waiver was ₹23.07 lakh. The Company replied that the account was settled. However, the Company suffered the loss due to waiver amounting to ₹44.55 lakh. The Company accepted OTS to this unit which is a willful defaulter that too many of the machinery were missing.

Sl. No	Name of the unit	Amount disbursed	Principal outstanding	Principal overdue	Interest overdue	Audit findings
9	Kay Kay Leather Products	0.04	0.01	0.02	0.19	Due to default committed by the borrower, the loan account was foreclosed and the primary assets were sold in public auction/tender. The Company received an offer of ₹12 lakh for the collateral property but the principal and interest of ₹19.38 lakh was waived. Even though the loan was settled as per formula the Company had foregone an overdue amount of ₹8.94 lakh (45 *per cent*).
10	Balasubramanian Ready Mix Concrete	1.90	1.55	1.55	0.05	The assisted unit suffered mainly due to non availability of Working Capital since inception which was not properly apprised before disbursement and failure to assess market potential of ready mix cement concrete at the time of sanction. Delay in taking possession of unit and the unit was NPA from 1.2.2014
11	Sri Velmurugan Fabricators	3.62	1.54	1.54	0.21	Failure to conduct periodical inspection as the fact of change in management (November 2015) of the unit was noticed only in March 2016. Further, while the loan account of associate unit was rescheduled, it failed to notice the accumulation of overdues since November 2014 of this unit and failed to foreclose the account. No action taken to acquire the possession of both primary and collateral securities (March 2016).
12	Sai Flexi Bags (P) Limited	5.78	3.76	1.05	---	The Company sanctioned (March 2011) loan of ₹1.40 crore, when the unit was expected to operate at around 50 *per cent* of the existing capacity in 2010-11 and did not have sufficient orders to justify expansion. The Company rescheduled (March 2013) the loans without ensuring viability despite the failure of the assisted unit to complete the expansion due to cost overrun in the construction of building meant for erection of machinery for expansion. The assisted unit diverted the working capital loan funds of bank. Despite taking possession (January 2014) by the bank of the assets pledged to it and knowing (January 2013) that the change in management was made in March 2012 without approval of the Company, the Company took possession of the unit only in September 2016.

Sl. No	Name of the unit	Amount disbursed	Principal outstanding	Principal overdue	Interest overdue	Audit findings
13	B.K.S Modern Rice Mill	1.78	1.17	1.17	0.10	The unit had become defunct since January 2014, however foreclosure of the loan account was carried out in November 2014 and reschedulement was effected in January 2015. It failed to exercise simultaneously the option of obtaining caveat petition for securitisation of assets to restrain the assisted unit from obtaining stay when subsequent foreclosure of the loan account was carried out in February 2016. This has resulted in obtaining of conditional interim stay (April 2016) by the unit by depositing an amount of ₹25 lakh on or before 15 June 2016. However, the borrower neither deposited the stipulated amount nor the Company took possession of the assets till date (October 2016) even after non compliance of the Court order by the unit.
	TOTAL	**22.74**	**14.32**	**7.67**	**48.70**	

ANNEXURE-10

(Referred to in Paragraph 2.1.31)

Statement showing deficiencies in recovery of loans in written off cases

(₹ in crore)

Sl.No.	Name of the unit	Amount disbursed	Principal outstanding	Principal overdue	Interest overdue	Total overdue	Value of collateral security available	Audit findings
1	Sri Sivasakthi Modern Rice Mill (Tiruvallur Branch)	0.64	0.36	0.36	0.15	0.51	1.45	The Branch Office failed to comply with the orders of the Regional Manager for taking constructive possession of the assets of the assisted unit as early as in March 2015 instead it resorted to issue of demand notices informing about the legal actions in case of failure in payment of overdues.
2	Mosi Engineering (Chennai Branch)	0.49	0.46	0.41	0.04	0.46	1.23	The Company did not ensure that the assisted unit had made arrangements for the working capital requirements. This had resulted in working capital problems for the unit besides non-obtaining of adequate job orders as estimated. Consequently, the unit defaulted in payment of overdues. Failure to initiate further recovery action even after OTS proposal was approved as early as in July 2016 based on the Court orders (June 2016) that the assisted unit had to make payments as per OTS proposal. No further action was taken for recovery of the loan even after lapse of 3 months from the date of Court order. Thus, failure in follow up of the recovery procedure had resulted in write off of ₹45.72 lakh during 2015-16. No action was taken to obtain constructive possession of both the primary and collateral security as envisaged in the Recovery Manual issued (2012) by the Company.

Sl.No.	Name of the unit	Amount disbursed	Principal outstanding	Principal overdue	Interest overdue	Total overdue	Value of collateral security available	Audit findings
3	Bala Colors (Karur Branch)	0.67	0.40	0.40	0.32	0.72	1.24	Failure to correlate the Government Orders with reference to TNPCB which rejected the application of the assisted unit for dyeing unit as early as in December 1998 and October 1999, the Company sanctioned the loan during August 2005 and March 2010 an amount of ₹66.89 lakh for the same under Red Category. Subsequently, TNPCB finally ordered (December 2011) for closure of the assisted unit resulting in default and the overdue amount had to be written off during 2015-16.
4	Vijaya Industrial Products (P) Ltd (Cuddalore Branch) – OTS	3.12	1.15	1.15	1.42	2.58	---	OTS proposal was approved (February 2012) for payment of ₹100 lakh. As a result, the Company had foregone ₹1.62 crore (principal amount - ₹19.63 lakh; simple interest - ₹1.42 crore) that too foregoing ₹19.63 lakh being the principal amount due which was in violation of the guidelines adopted for OTS.
5	Sri Rama Modern Rice Mill, Thiruvallur Branch	0.48	0.48	0.48	0.18	0.66	1.13	The borrower implemented the project for modernisation and expansion of existing rice mill in June 2010 with a delay of more than two years. Consequently, the borrower started to default in payment of dues from April 2009 *i.e.*, before completion of the project. Despite the approval (July 2012) of the Corporate Office to take physical possession of the assisted unit, the physical possession had not been taken till date (September 2016) by the Branch Office and instead resorted to issue Demand Notices for clearance of overdues by the assisted unit. Even though the unit had collateral security more than the overdue amount, the amount was written off during 2012-13
6	Ravi Tex	0.42	0.41	0.41	0.10	0.51	0.60	The Company extended (March 2010/June 2010) loans for purchase of 6 imported second-hand rapier looms machines of year 2001 make for manufacture of oven fabrics on job order basis. Contrary to loan appraisal, the assisted unit was incapable of servicing the loans and was ineligible to avail subsidy under the scheme as the machines were found to be manufactured in 1997 (instead of 2001) during the inspection made by the office of the Textile Commissioner. Due to improper appraisal, the loans became NPA and finally written off in March 2016.

Sl.No.	Name of the unit	Amount disbursed	Principal outstanding	Principal overdue	Interest overdue	Total overdue	Value of collateral security available	Audit findings
7	M/s. Srinivasa Modern Rice Mills	0.44	0.40	0.40	0.15	0.55	0.37	The unit could not implement the project in time and was delayed due to lack of working capital requirements and commenced production only in July 2007, that too on the basis of the availability of job orders. Due to lack of job orders and working capital problem, the overdue amount of ₹24.53 lakh was re-scheduled (11.08.2008). Even after re-schedulement the assisted unit could not pay the dues and the account was foreclosed on 05.07.2010. However, the Company again sanctioned (September 2010) ₹16 lakh towards WCTL (March 2010 closing stock ₹3.93 lakh and sundry debtors ₹1.93 lakh). But the unit had not repaid the entire TL/WCTL. In spite of non-payment, the Company took physical possession only in October 2014 and carried out auctions only in August 2015/ February 2016 for disposal of the primary and collateral securities. However, the auctions could not fructify. Hence, the Company had written off the principal amount of ₹39.65 lakh (March 2016).
8	M/s.Golden Gardens Processed Food Pvt Ltd	0.90	0.74	0.74	35.88	36.63	1.86	Failure to take possession of the unit for the default of principal and interest during 1999. Even after possession (25.09.2013), the Company failed to dispose of the property till date. The principal amount of ₹14.95 lakh was written off during 2012-13.
9	M/s. Sri Vinayaga Tex	0.42	0.26	0.26	0.25	0.51	0.39	Even though the unit failed to pay the amount towards principal and interest from the date of disbursement *i.e.*, April 2011 upto 12.11.2014, the Company foreclosed account on 16.11.2012 and took constructive possession only on 20.11.2013 and physical possession on 08.08.2014. The Company failed to dispose of the machinery (value ₹52.80 lakh) till date and the principal amount of ₹25.56 lakh was written off during 2015-16.
10	Sri Abinantha Coirs	0.48	0.47	0.47	0.14	0.61	1.13	The Company had recorded in its notings in March 2016 that the assisted unit was performing well but failed to repay the loan and interest to the Company. This indicated that the loanee was wilful defaulter. However, the Company failed to recover the amount by taking actions as per the sanction orders. These failures led to non-recovery of ₹ 62.96 lakh.

Sl.No.	Name of the unit	Amount disbursed	Principal outstanding	Principal overdue	Interest overdue	Total overdue	Value of collateral security available	Audit findings
11	V.K.M. Modern Rice Mill	0.29	0.21	0.17	0.01	0.18	2.32	The unit was sanctioned a TL of ₹29.00 lakh (January 2008) for construction of building and purchase of machinery. The unit faced problems due to inadequate working capital. As the unit failed to clear the over dues, the account was foreclosed on 11.02.2011. However, the Company took physical possession only on 28.03.2016 but released the same based on partial payment of ₹5.10 lakh. The unit once again failed to clear the overdues even after release of possession and the Company also failed to take further action in the matter. In the meanwhile the Company had written off (March 2015) the amount of ₹20.99 lakh.
12	BRIGHT FLY ASH BRICKS	0.19	0.14	0.14	0.10	0.24	3.08	Even though the assisted unit defaulted in repayment of dues since January 2011, the account was foreclosed in December 2012. The Company failed to take possession of units till date even after filing of caveat petition for securing the assets during December 2012. While the Company had written off the principal amount of ₹14.46 lakh during 2014-15, it failed to take concrete action to recover the dues.
13	SRM Industries	0.39	0.20	0.20	0.15	0.35	0.67	Even though the assisted unit defaulted in repayment of dues since April 2011, the Company foreclosed the accounts only in 20.11.2013 after a lapse of two and half years. It failed to take possession of the assisted unit till date, which indicates inadequate follow up resulting in write off of outstanding amount of ₹20.10 lakhs during 2014-15. No further action was taken to invoke personal guarantee of the promoter to recover the dues besides taking possession of collateral securities valued at ₹67 lakh.
14	SRI PALANIAPPA MODERN RICE MILL	0.35	0.23	0.23	---	0.23	1.31	The financial assistance extended for the machinery which was sold (24/10/2013) (₹44.15 lakh) by one of the promoters without approval of the Company due to absence of periodical inspection. The Company also failed to identify the rift among the promoters as it had not conducted mandatory inspection. Failure to take timely possession of the primary as well as collateral securities even after filing caveat petition for securitisation of assets during 2013 had resulted in writing off principal amount of ₹22.84 lakh during 2015-16.

Sl.No.	Name of the unit	Amount disbursed	Principal outstanding	Principal overdue	Interest overdue	Total overdue	Value of collateral security available	Audit findings
15	Sri Lakshmi Coir Spinners	0.18	0.15	0.15	0.22	0.37	0.27	The unit suffered due to non-availability of working capital from April 2008 and even after re-schedulement (January 2009), the unit failed (October 2009) to repay the dues. Hence, the account was foreclosed (November 2010). The Company had to take possession after a lapse of 1 ½ year *i.e.*, 27.03.2012. Till date the Company could not dispose of the assets. Delay in disposal of assets resulted in writing off of an amount of ₹15.36 lakh (principal overdue).
16	Sri Balaji New Modern Rice Mill	0.58	0.49	0.44	0.47	0.91	0.75	The Company failed to carry out periodical inspection, as the generator was found missing subsequently. Further, when the Company issued legal notice under section 29 of the SFC Act, the assisted unit filed Writ Petition before the Hon'ble High Court and interim stay was granted on 04.06.2013 due to non-appearance of the Company's counsel at the time of hearing and the stay is yet (October 2016) to be vacated. In the meanwhile, the borrower filed an Insolvency Petition at Villupuram. Hence, the total amount was written off (2015-16) by the Company.
17	Sreyas Engineering (Pudukottai)	1.04	0.98	0.98	0.13	1.11	2.12	The Company sanctioned ₹92.71 lakh based on the informal MOU with major client. It failed to verify the existence of firm commitment (MOU) by the major client before disbursement. In spite of rescheduling the loan during 2011 and 2014 no recovery was effected as the cheque sent for collection was returned as dishonoured. Further the Company failed to take possession of the unit even after foreclosure (March 2015) of the account till date (March 2016). However, the amount was written off in 2014-15.

Sl.No.	Name of the unit	Amount disbursed	Principal outstanding	Principal overdue	Interest overdue	Total overdue	Value of collateral security available	Audit findings
18	Cholan Paper and Boards Mills Ltd	6.44	4.64	4.64	---	4.64	10.50	The loan assistance was extended to the unit which had debt equity ratio of 3.81:1 by taking over of debts from SBI against the Company's norm for debt equity 2:1. This indicated that there was no viability of the project when the loan was sanctioned. Moreover, there was under utilisation of the capacity of the unit and the power cut problems faced by the unit. These were not factored in while sanctioning the loan. The Company was yet to take possession of the unit (March 2016). Further, no action was taken to dispose of the collateral securities worth ₹10.50 crore. The Company replied that the write off was made as a tax planning measure but, the loan account was regular as on date. The reply was not convincing as the unit had no overdue as on date (October 2016) only because of rescheduling of repayment of loan and not due to regular repayments of the dues.
19	Dhandapani Finance	9.50	2.71	2.71	3.29	6.00		The Company was aware change in management of the assisted unit and the personal guarantee also withdrawn as early as in May/July 2008. Further, the Company was informed of change in September 2008 by SBI but without its knowledge. The change of management could have been ascertained had the Company obtained financial statement of the loanee, but it failed to collect the same from 2006-07 onwards. Further, the assisted unit had informed (May 2008) the Company about the withdrawal of the personal guarantee of two Directors (`1.85 crore), but the Company failed to promptly protest for such proposal. Moreover, Debt Recovery Tribunal had authorised (September 2013) SBI to dispose the properties of the loanee and settle the Consortium of lenders which was still pending (October 2016). Consequently, the Company could not recover the amount through any means and was forced to write off principal amount of ₹2.71 crore and interest of ₹ 3.29 crore in the year 2012-13. Thus, the above weakness and failures in monitoring the assisted unit led to loss of ₹6.00 crore. It was replied that the case is closely followed up. However, the fact remained that there were various deficiencies resulting in write off.
	Total	**27.02**	**14.88**	**14.74**	**43.00**	**57.77**	**30.42**	

ANNEXURE-11

(Referred to in Paragraph 2.1.33)

Statement showing details of take over of assets of the defaulted units and its disposal during 2011-16

(₹ in crore)

Period of default	2011-12		2012-13		2013-14		2014-15		2015-16		Total (No)
	No.	Total over dues	No.	Total over dues	No.	Total over dues	No.	Total over dues	No.	Total over dues	
Up to one year	25	19.06	21	9.43	33	3.49	17	50.60	15	5.51	111
1 to 2 years	12	80.75	11	10.85	14	6.60	27	1.55	22	37.30	
2 to 5 years	17	150.67	7	40.59	9	23.22	14	13.99	26	33.35	
Above 5 years	105	598.40	83	865.17	69	1,448.65	78	2,119.45	69	576.14	
TOTAL*	**159**	**848.89**	**122**	**926.03**	**125**	**1,481.96**	**136**	**2,185.59**	**132**	**652.30**	
Units disposed and Realised	**No**	**Amount**	**No**	**Amount**	**No**	**Amount**	**No**	**Amount**	**No**	**Amount**	**Total**
a) No of units	39		17		11		23		45		135
b) Sale amount		5.54		4.57		0.44		0.41		0.92	11.88
c) Value of assets		7.73		4.68		0.62		0.45		1.05	14.53
d) Total Outstanding		579.19		80.74		13.61		0.99		2.82	677.35

Note: The total of 111 units which has been classified as upto one year category represent the total number of units taken over by the Company during 2011-16.

ANNEXURE-12

(Referred to in Paragraph 3.1)

Statement showing service rendered and charges collected by TIDCO from its JV companies

Sl.No.	Details	Name of the JV companies										
		L&T Ship Building Limited	**Nuziveedue Seeds Limited**	**ETA Star Developers Limited**	**NATCO Organics Limited**	**Sattva Agro Exports (P) Limited**	**Jafza Chennai Business Park (India) Limited**	**Nilgiri Power Limited**	**CCCL Pearl City Food Port SEZ Limited**	**Mahindra World City Developers Limited**	**TRIL Info Park Limited**	**Devraj Agro Industries Private Limited**
	Date of Service Agreement	Not executed	21.05.07	18.08.07	04.04.08	27.08.08	01.04.09	23.01.09	16.07.10	08.04.10	20.12.10	27.04.11
1.	Assist the Company in getting power and water from TNEB and CMWSSB/TWAD Board	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2.	Assist the Company in getting Environmental Clearance from local Pollution Control Board	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3.	Assist the Company in obtaining of approval of Building Plan from appropriate Authorities	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4.	Assist the Company in getting approvals, NOCs, Clearances, *etc*., from appropriate authorities	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Sl.No.	Details	Name of the JV companies										
		L&T Ship Building Limited	Nuziveedue Seeds Limited	ETA Star Developers Limited	NATCO Organics Limited	Sattva Agro Exports (P) Limited	Jafza Chennai Business Park (India) Limited	Nilgiri Power Limited	CCCL Pearl City Food Port SEZ Limited	Mahindra World City Developers Limited	TRIL Info Park Limited	Devraj Agro Industries Private Limited
5.	Assist the Company in getting other approvals that are required from Statutory or competent authorities from time to time relating to the project	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
6.	To provide local inputs in terms of co-ordination, liaison and other support needed for the smooth implementation of the project	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
7.	To assist in obtaining road/communication connectivity	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
8.	To secure all eligible Central and State incentives and concessions available for such projects	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
9.	Given publicity of ship building facilities at LTSBL to Poompuhar Shipping Corporation to promote business opportunities	Yes	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A

Sl.No.	Details	Name of the JV companies										
		L&T Ship Building Limited	Nuziveedue Seeds Limited	ETA Star Developers Limited	NATCO Organics Limited	Sattva Agro Exports (P) Limited	Jafza Chennai Business Park (India) Limited	Nilgiri Power Limited	CCCL Pearl City Food Port SEZ Limited	Mahindra World City Developers Limited	TRIL Info Park Limited	Devraj Agro Industries Private Limited
10.	Co-ordination with Tamil Nadu Maritime Board for getting captive port approval, fixing port charges, revenue sharing, *etc*.	Yes	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A
11.	Obtaining approval for SEZ	Yes	Yes	Yes	N.A	N.A	Yes	N.A	Yes	Yes	Yes	N.A
	Rate of service charges (in *per cent*)	NIL	Two	Lump sum	Two	Two	Two	Two	Two	One	Two	Two
	Service charges collected (₹ in crore)	NIL	10	20	0.50	0.34	2.43	0.32	10.99	6.76	19.94	0.25

N.A: Not Applicable

ANNEXURE-13

(Referred to in Paragraph 3.3)

Statement showing loss of advertisement revenue

(₹ in lakh)

Sl No.	Period	Possible Revenue as per Offer of M/s Uni Ads	Actual Revenue Earned	Differential Revenue
1.	October 2013 to August 2014	₹ 314.19 (at ₹ 1,010 per bus per month for 2,828 buses for 11 months)	₹ 117.20 (at ₹ 668 per bus per month for 2,828 buses from 08.10.2014 to 27.03.2015)	196.99
2.	September 2014 to July 2015	₹ 377.03 (at ₹ 1,212 per bus per month (₹ 1,010 plus 20%) for 2,828 buses for 11 months)	₹ 22.18 (at ₹ 550 per bus per month for 1,008 buses from March 2016 to June 2016)	354.85
3.	August 2015 to June 2016	₹ 471.26 (at ₹ 1,515 per bus per month (₹ 1,212 plus 25%) for 2,828 buses for 11 months)	₹ 64.71 (at ₹ 825 per bus per month for 1,961 buses from March 2016 to June 2016)	406.55
Total				**958.39**

ANNEXURE-14

(Referred to in Paragraph 3.4)

Statement showing additional interest cost

(₹ in crore)

Sl. No.	Name of the Bank/PSU	Loan Outstanding	Interest actually paid		
			2013-14	2014-15	Total
1.	Indian Bank	40.80	4.50	3.50	8.00
2.	TIDCO	25.00	5.33	5.02	10.35
3.	TIDEL PARK	5.00	0.60	0.51	1.11
4.	VIJAYA Bank	53.00	5.54	4.36	9.90
5.	Working Capital	36.20	---	---	---
6.	TOTAL	160.00	15.97	13.39	29.36
7.	Interest payable on Government Loan of ₹160 crore @ 8 *per cent per annum* for 22 months from April 2013 to January 2015				23.47
8.	Differential Interest				5.89

ANNEXURE-15

(Referred to in Paragraph 3.7)

Photos of poor maintenance of premises

ANNEXURE-16

(Referred to in Paragraph 3.13.3)

Statement showing the levels of SPM at stack in the thermal plants of TANGEDCO

(mg/Nm^3)

Name of the thermal station	Date of commissioning	Capacity (MW)	SPM norm mg/ NM^3	2011-12			2012-13			2013-14			2014-15			2015-16		
				Min	Max	Ave	Min	Max	Ave	Min	Max	Ave	Min	Max	Ave	Min	Max	Ave
TTPS																		
Unit I	09-07-1979	210	150	100	573	342	107	810	450	153	565	354	121	585	299	124	381	232
Unit II	17-12-1980	210	150	359	1353	865	551	2680	1240	415	1524	731	214	646	337	224	569	339
Unit III	16-04-1982	210	150	51	5661	309	71	531	317	94	691	348	146	617	178	127	511	242
Unit IV	11-02-1992	210	150	524	4676	1664	252	1442	771	91	1247	656	124	603	236	88	328	188
Unit V	31-03-1991	210	150	363	2026	1013	248	680	459	54	1297	467	124	381	284	82	301	162
MTPS																		
Unit I	07-01-1987	210	150	46	243	138	96	249	174	79	147	112	58	201	124	46	121	78
Unit II	01-12-1987	210	150	83	289	165	105	169	135	55	143	116	58	225	134	61	212	117
Unit III	22-03-1989	210	150	43	143	90	107	268	152	85	178	100	66	242	128	17	228	99
Unit IV	27-03-1990	210	150	115	257	188	-	210	110	70	149	106	79	257	103	55	195	103
Unit V	12-10-2013	600	50	-	-	-	-	-	-	-	-	-	-	-	-	25	28	27
NCTPS																		
Unit I	25-10-1994	210	150	108	130	110	117	145	131	122	147	127	132	148	142	33	151	109
Unit II	27-03-1995	210	150	109	136	124	115	143	128	127	143	136	135	145	142	71	167	122
Unit III	24-02-1996	210	150	115	140	127	120	149	136	119	148	140	134	148	132	115	145	132
Unit IV	20-03-2014	600	50	-	-	-	-	-	-	-	-	-	-	-	-	40	49	44
Unit V	08-05-2014	600	50	-	-	-	-	-	-	-	-	-	-	-	-	41	48	45
Total		**4320**																

(Source: Data obtained from the Company)

ANNEXURE-17

(Referred to in Paragraph 3.13.3)

Statement showing the SPM/SO_2/NO_x levels at ambient air of thermal plants

(µg/Nm^3)

Year		TTPS			NCTPS			MTPS		
		SPM	SO_2	NO_X	SPM	SO_2	NO_X	SPM	SO_2	NO_X
Norm		**60**	**50**	**40**	**60**	**50**	**40**	**60**	**50**	**40**
2011-12	AVG	119.72	1.91	3.19	83.52	14.03	12.98	147.22	1.70	3.54
	MAX	470.36	23.23	49.83	96.50	17	15.50	199.40	5.60	30.50
	MIN	20.98	0.04	0.04	68.33	11.50	10.50	49.80	0.61	0.75
2012-13	AVG	133.71	1.60	4.11	123.63	16.60	15.77	157.78	1.63	3.28
	MAX	384.99	26.03	47.16	142.33	19.75	17.83	199.60	2.92	5.68
	MIN	25.53	0.03	---	103.92	13.58	13.67	64.28	0.27	0.05
2013-14	AVG	140.66	2.04	1.86	150.37	20.05	19.13	143.96	2.08	3.12
	MAX	219.17	8.77	8.46	161.58	23.17	21.58	199.20	34.49	6.75
	MIN	59.25	0.03	0.04	136.25	17.17	16.75	54.50	0.72	1.11
2014-15	AVG	105.20	0.83	2.06	160.12	19.48	18.98	59.63	0.83	2.91
	MAX	305.12	6.05	25.67	169.42	21.50	20.92	199.60	2.63	6.45
	MIN	19.94	0.07	0.09	146.08	17.67	16.92	24.70	0.03	0.09
2015-16	AVG	201.47	1.08	1.19	104.16	19.80	18.80	59.22	0.73	4.05
	MAX	555.85	1.85	2.13	170.00	25.00	24.00	155.14	1.42	8.75
	MIN	18.39	0.52	0.50	59.00	16.00	15.00	12.90	0.19	0.70

(Source: Data obtained from the Company)

ANNEXURE-18

(Referred to in Paragraph 3.13.6)

Statement showing the fly ash generated and disposed off by the thermal plants

(Figures in million tonnes)

Name of the station	Fly Ash disposed off during				
	2011-12	2012-13	2013-14	2014-15	2015-16
Total fly ash generated					
TTPS-Units I to V	1.26	1.34	1.36	1.09	0.98
MTPS- Units I to IV	1.20	0.98	0.97	0.95	1.01
MTPS- Unit V	-	0.02	0.31	0.42	0.58
NCTPS- Units I to III	0.57	0.66	0.49	0.61	0.58
NCTPS- Units IV & V	-	-	0.39	0.88	1.02
Total (A)	**3.03**	**3.00**	**3.52**	**3.94**	**4.17**
Total fly ash lifted by cement companies/small scale units					
TTPS-Units I to V	1.26	1.34	1.36	1.09	0.98
MTPS- Units I to IV	1.08	0.91	0.87	0.77	0.59
MTPS- Unit V	-	0.02	0.23	0.35	0.49
NCTPS- Units I to III	0.47	0.47	0.32	0.27	0.14
NCTPS- Units IV & V	-	-	0.25	0.53	0.45
Total (B)	**2.81**	**2.74**	**3.03**	**3.01**	**2.65**
Percentage of utilisation (B to A)					
TTPS-Units I to V	100	100	100	100	100
MTPS- Units I to IV	90	93	90	81	58
MTPS- Unit V	-	100	74	83	84
NCTPS- Units I to III	82	71	65	44	24
NCTPS- Units IV & V	-	-	64	60	44
Average utilisation for all the three stations	92.73	91.33	86.07	76.20	63.55

(Source: Data obtained from the Company)

ANNEXURE-19

(Referred to in Paragraph 3.13.15)

Statement showing hazardous waste generated, sold and the balance remaining in the thermal plants of TANGEDCO

(Quantity in Kilograms)

Year	TTPS				MTPS				NCTPS			
	Opening balance	Generated	Sold	Closing balance	Opening balance	Generated	Sold	Closing balance	Opening balance	Generated	Sold	Closing balance
2011-12	6,265	23,410	17,715	11,960	4,633	4,770	5,911	3,492	2,540	6,315	---	8,855
2012-13	11,960	18,170	16,970	13,160	3,492	7,520	10,212	800	8,855	6,020	9,235	5,640
2013-14	13,160	36,230	1,260	48,130	800	3,690	1,507	2,983	5,640	11,820	6,440	11,020
2014-15	48,130	27,390	47,750	27,770	2,983	10,630	11,264	2,349	11,020	4,140	400	14,760
2015-16	27,770	20,680	31,470	16,980	2,349	12,858	7,684	7,520	14,760	4,120	17,620	1,260

(Source: Data obtained from the Company)

Glossary of Abbreviations

Abbreviation	Description
AA	Ambient Air
AMR	Andavar Modern Rice Mill
ATNs	Action Taken Notes
BEF	Bureau of Energy Efficiency
BFS	Bill Financing Scheme
BLTC	Board Level Tender Committee
BO	Branch Office
BOD	Board of Directors
CAAQMS	Continuous Ambient Air Quality Monitoring System
CAG, C&AG	Comptroller and Auditor General of India
CERC	Central Electricity Regulatory Commission
CFO	Consent for Operation
CGTMSE	Credit Guarantee Fund Trust for Micro and Small Enterprises
CIBIL	Credit Information Bureau (India) Limited
CL	Chlorides
CMD	Chairman-cum-Managing Director
CO	Corporate Office
CO_2	Carbondi oxide
COPU	Committee on Public Undertakings
CPCB	Central Pollution Control Board
CRO	Chief Risk Officer
dbs	Decibels
DC	Double Circuit
DM	Deputy Manager
EBMs	Electronic Billing Machines
ELCOT	Electronics Corporation of Tamil Nadu Limited
EMC	Environment Management Cell
ESPs	Electro Static Precipitators
ETP	Effluent Treatment Plant
ETPS	Ennore Thermal Power Station
FCI	Food Corporation of India
FIFO	First in First out
GDP	Gross Domestic Product
GMS	Godown Monitoring System

Abbreviation	Description
GOI	Government of India
GOTN	Government of Tamil Nadu
GRA	Good Receipt Acknowledgement
HO	Head Office
IMFL	Indian Made Foreign Liquor
IMS	Integrated Information Management System
IOB	Indian Overseas Bank
IT	Information Technology
JV	Joint Venture
KFC	Kerala Finance Corporation
Kms	Kilometre
KMS	Khariff Marketing Season
KV	Kilo Volt
KW	Kilo Watt
L&T	Larsen and Toubro Limited
LOA	Letter of Acceptance/Letter of Authority
LTSBL	L&T Ship Building Limited
MA	Mobest Associates
MACT	Motor Accident Compensation Tribunal
MD	Managing Director
MoEFCC	Ministry of Environment, Forest and Climate Change
MOU	Memorandum of Understanding
MRM	Modern Rice Mill
MSME	Micro, Small and Medium Enterprises
MSR	Master Stock Register
MT	Metric Tonne
MTPL	Mahan Textiles (Private) Limited
MTPS	Mettur Thermal Power Station
MUs	Million Units
MW	Mega Watt
NAPCC	National Action Plan for Climate Change
NCTPS	North Chennai Thermal Power Station
NOx	Oxides of Nitrogen
NPA	Non Performing Assets
OTS	One Time Settlement
PA	Performance Audit
PAT	Perform, Achievement and Trade

Abbreviation	Description
PD	Public Deposit
PDFACS	Pressurised Dense Fly Ash Collection System
PDS	Public Distribution System
PMR	Panduranga Modern Rice Mill
PO	Purchase Order
PPA	Power Purchase Agreement
PSUs	Public Sector Undertakings
PVEEM	Physical Verification Excess Entry Module
RBI	Reserve Bank of India
REC	Rural Electrification Corporation
RLE	Real Links Engineering India Private Limited
RO	Regional Office
RPP	M/s RPP Selvam Infrastructure Private Limited
RV	Retail Vending
RWPH	Recovery Water Pump House
SARs	Separate Audit Reports
SBI	State Bank of India
SER	Sri Elumalayan Rice Mills
SFC	State Financial Corporation
SFPL	Srinidhi Fabrics Private Limited
SHEP	Sholayar Hydro Electric Project
SHR	Station Heat Rate
SIDBI	Small Industries Development Bank of India
SIPCOT	State Industries Promotion Corporation of Tamil Nadu Limited
SLBC	State Level Bankers Committee
SO_2	Sulphur Dioxide
SPE	Sri Periyandavar Exports
SPM	Suspended Particulate Matter
Sq.ft.	Square feet
SRC	Southern Rubber and Company
SRM	Senior Regional Manager
SS	Sub Stations
STP	Sewage Treatment Plant
STUs	State Transport Undertakings
TANGEDCO	Tamil Nadu Generation and Distribution Corporation Limited
TASMAC	Tamil Nadu State Marketing Corporation Limited
TDS	Total Dissolved Solids

Abbreviation	Description
TIDCO	Tamil Nadu Industrial Development Corporation Limited
TIIC	Tamil Nadu Industrial Investment Corporation Limited
TNERC	Tamil Nadu Electricity Regulatory Commission
TNPCB	Tamil Nadu Pollution Control Board
TNRDC	Tamil Nadu Road Development Corporation Limited
TSS	Total Suspended Solids
TTPS	Tuticorin Thermal Power Station
TWAD Board	Tamil Nadu Water Supply and Drainage Board
VAT	Value Added Tax
WCTL	Working Capital Term Loan